# REMEDIAL INVESTIGATION/ ALTERNATIVE ANALYSIS REPORT

## 160-164 EAST 4TH STREET
## DUNKIRK, CHAUTAUQUA COUNTY, NEW YORK
## NYSDEC SITE NO. C907051

Prepared For:

Regan Development Corporation
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# ACRONYMS

| | |
|---|---|
| AAR | Alternative Analysis Report |
| ACM | Asbestos Containing Material |
| ASL | Above Sea Level |
| ADA | Americans with Disabilities Act |
| BCA | Brownfield Cleanup Agreement |
| BCP | Brownfield Cleanup Program |
| BE3 | Brydges Engineering in Energy and Environment |
| bgs | Below Ground Surface |
| C&D | Construction and Demolition |
| CAMP | Community Air Monitoring Program |
| COC | Contaminants of Concern |
| CP | Commissioner Policy |
| DER | Division of Environmental Remediation |
| DNAPL | Dense Nonaqueous Phase Liquid |
| DO | Dissolved Oxygen |
| DUSR | Data Usability Summary Report |
| EC | Engineering Control |
| EE | Environmental Easement |
| EIFS | Exterior Insulation and Finish System |
| ELAP | Environmental Laboratory Approval Program |
| EPA | Environmental Protection Agency |
| ESA | Environmental Site Assessment |
| EWP | Excavation Work Plan |
| FEAF | Full Environmental Assessment Form |
| GPR | Ground Penetrating Radar |
| GPS | Global Positioning System |
| GSF | Gross Square Feet |
| HASP | Health and Safety Plan |
| HSA | Hollow Stem Auger |
| IC | Institutional Control |
| ID | Inside Diameter |
| $\mu g/m^3$ | Micrograms per Cubic Meter |
| LNAPL | Light Nonaqueous Phase Liquid |
| NTU | Nephelometric Turbidity Units |
| NYCRR | New York Codes, Rules and Regulations |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| NYSDOT | New York State Department of Transportation |
| NYSHCR | New York State Homes and Community Renewal |
| ORP | Oxidation-Reduction Potential |
| PAH | Polycyclic Aromatic Hydrocarbon |
| PCB | Polychlorinated Biphenyl |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PID | Photoionization Detector |
| ppm | Parts Per Million |
| PVC | Polyvinyl Chloride |
| QA/QC | Quality Assurance/Quality Control |

| | |
|---|---|
| QEP | Qualified Environmental Professional |
| QHHEA | Qualitative Human Health Exposure Assessment |
| RAO | Remedial Action Objective |
| RAWP | Remedial Action Work Plan |
| RCRA | Resource Conservation and Recovery Act |
| RI | Remedial Investigation |
| SCG | Standards, Criteria, and Guidance |
| SCO | Soil Cleanup Objective |
| SMP | Site Management Plan |
| SVOC | Semi-Volatile Organic Compound |
| SWPPP | Stormwater Pollution Prevention Plan |
| TAL | Target Analyte List |
| TCL | Target Compound List |
| TENORM | Technologically Enhanced Naturally Occurring Radioactive Material |
| TIC | Tentatively Identified Compound |
| TOGS | Technical and Operational Guidance Series |
| UST | Underground Storage Tank |
| VOC | Volatile Organic Compound |

# CERTIFICATION

I, Jason Brydges, certify that I am currently a New York State registered professional engineer as defined in 6 New York Codes, Rules and Regulations (NYCRR) Part 375 and that this Remedial Investigation/Alternative Analysis Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Department of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

_____

Jason M. Brydges, PE

## 1.0 INTRODUCTION

Regan Development Corporation has obtained an executed Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) as a Volunteer for the property located at 160-164 East 4th Street in the City of Dunkirk, Chautauqua County, New York (the "Site"). The Site is enrolled in the Brownfield Cleanup Program (BCP) under BCP Site No. C907055 and is approximately 2.15 acres in size. A Site Location Map is provided as **Figure 1**, and the Boundary Survey Map is included as **Figure 2**.

Regan Development Corporation has retained Brydges Engineering in Environment and Energy (BE3) to conduct a Remedial Investigation (RI) and prepare an Alternatives Analysis Report (AAR) for the Site, as required under the BCA. The goal of the project is to remediate the Site to support the redevelopment of multi-family residential units, associated parking areas, and recreational/greenspace amenities.

### *1.1 SITE BACKGROUND*

The Site is 2.15-acres containing a structure that includes two storefronts in the eastern central portion of the Site connected to a larger commercial plaza. Surrounding the structure is an asphalt parking lot in the south and a section of greenspace to the north.

Environmental investigations conducted to date, including a BE3 Phase II Environmental Site Assessment (ESA), indicate the presence of impacted soil and groundwater due to historical site uses and the presence of urban fill. Constituents of concern identified in soil include semi-volatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs), and various metals. Groundwater samples from temporary monitoring wells indicated impacts from volatile organic compounds (VOCs) and metals. Historical data also suggests the potential for petroleum, polychlorinated biphenyls (PCBs), and chlorinated solvents.

Historical records including street directories and Sanborn Maps indicate that the Site was mixed use residential/commercial. Sanborn maps indicate that from 1888 to 1964, the subject property contained several residences. The area was redeveloped into commercial buildings dating back to 1985. Historical street directories indicate the Site has been occupied by a Family Dollar store from 1985 to 2020 and a VA clinic from 2010 to 2020.

### *1.2 CONTEMPLATED USE OF THE SITE*

The proposed use of the Site includes development of multi-family apartment units, an associated parking area and recreational/greenspace. It should be noted that the existing building on Site will be removed as part of the new development and the planned remedial track is Track 4 - Restricted Residential Use.

### *1.3 IDENTIFICATION OF STANDARDS, CRITERIA, AND GUIDANCE*

Standards, criteria, and guidance (SCGs) are promulgated requirements ("standards" and "criteria") and non-promulgated guidance ("guidance") that govern activities that may affect the environment and are used by the NYSDEC at various stages in the investigation and remediation of a site. The following are the primary SCGs for this project:

- NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs, December 2006.
- NYSDEC DER-10 Technical Guidance for Site Investigations and Remediation, May

2010.

- NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.
- NYSDEC Commissioner Policy (CP)-51 Soil Cleanup Guidance, October 2010.
- NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), April 2023.
- NYSDEC 6 NYCRR 360 Solid Waste Management Facilities General Requirements, August 2020.
- New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion, May 2017 updated February 2024.

## 2.0 REMEDIAL INVESTIGATION APPROACH

The Remedial Investigation (RI) was conducted in general accordance with the November 2024 *Remedial Investigation Work Plan (RIWP (Revised July 2025), Regan Development Corporation, 166 East 4th Street, City of Dunkirk, Chautauqua County, New York, Site No. C907055*. NYSDEC issued an approval letter for the RIWP on July 31st, 2025.

RI activities generally included the following:

- Subsurface soil borings to evaluate fill thickness and native material
- Installation of shallow and intermediate-depth groundwater monitoring wells
- Vapor point installation
- Soil, groundwater, and soil vapor sampling for chemical analysis

A Qualified Environmental Professional (QEP) from Brydges Engineering in Environment and Energy (BE3) was present on site during all intrusive field work. Prior to any subsurface activities, the underground utility locating service was contacted to mark known utilities. The approximate locations of historic Phase II and RI sampling points are presented on **Figure 3**. GPS coordinates for each sampling location are summarized in **Table 6**. Daily Field Reports (DFRs) documenting work performed, weather conditions, equipment used, and any deviations are provided in Appendix A, with a corresponding photolog and location sketches. Additional site photographs are included in Appendix B.

A Community Air Monitoring Program (CAMP) was implemented in accordance with NYSDOH DER-10 guidance throughout the duration of intrusive RI fieldwork. Real-time monitoring was conducted for particulate matter (dust) and total volatile organic compounds (VOCs). Particulate concentrations downwind of work areas did not exceed 100 micrograms per cubic meter (µg/m³) above background levels for any 15-minute period. VOC concentrations remained below the action level of 5 parts per million (ppm) above background during all monitored periods. Air monitoring results are included in the DFRs in Appendix A.

## *2.1* RI DEVIATIONS

During the course of the Remedial Investigation, field conditions necessitated deviations from the originally approved July 2025 Remedial Investigation Work Plan (RIWP).

### *2.1.1 GROUNDWATER INVESTIGATION DEVIATIONS*

The approved RIWP included the installation and sampling of 5 overburden monitoring wells across the Site to characterize the underlying hydrologic conditions and identify any deep contamination concerns. However, due to unanticipated subsurface conditions encountered during sampling, RI-MW-1 was dry and unable to be sampled. Since additional efforts did not produce groundwater and all other wells were clean/unimpacted, it is BE3's opinion that additional groundwater sampling in this location is unnecessary.

## *2.2* SOIL INVESTIGATION

On May 27-29th, August 7th, and 11th 2025, a total of 18 exterior and 2 interior soil borings, (RI-BH-1 through RI-BH-20), and 4 surface samples (SS-1 through SS-4), were completed across the Site to evaluate fill characteristics and identify contamination within shallow subsurface soils. A total of 5 soil samples were also taken from proposed screened intervals of planned RI monitoring wells. The majority of borings were advanced using a track-mounted Geoprobe® 7720DT direct-push drilling rig. Due to access constraints for the interior boring, RI-BH-10, a concrete core drill was used to breach the slab, followed by hand-augering to refusal. Surface samples were completed using a hand shovel. Locations were selected to provide representative site coverage, particularly in areas with a history of potential contaminant use or fill placement. Boring locations were finalized in the field based on site conditions and the presence of potential subsurface features.

Soil collected from Geoprobe® borings was continuously recovered using 5-foot acetate sleeves. Borings were terminated at refusal, with final depths ranging from approximately 10 to 16 feet below ground surface (bgs). Soil collected using the hand auger for RI-BH-10 was continuously recovered using 2-foot acetate sleeves and the boring was terminated at 6 feet bgs due to refusal.

A specific number of soil samples were collected from each boring to accurately characterize the sub surface across the site. A sample summary can be seen below:

**Summary of Samples and Sample Rationale**

| Soil Boring | Number of Samples | Sampling Rationale |
|---|---|---|
| RI-BH-1 and RI-BH-2 | 2 | Nature and Extent of Fill Layer |
| | | Characterize Native Soil |

| | | |
|---|---|---|
| RI-BH-3 and RI-BH-4 | 1 | Nature and Extent of Fill Layer |
| RI-BH-5 through RI-BH-11 | 2 | Nature and Extent of Fill Layer |
| | | Characterize Native Soil |
| RI-BH-12 through RI-BH-14 | 1 | Nature and Extent of Fill Layer |
| RI-BH-15 | 2 | Nature and Extent of Fill Layer |
| | | Characterize Native Soil |
| RI-BH-16 | 1 | Nature and Extent of Fill Layer |
| RI-BH-17 and RI-BH-18 | 2 | Nature and Extent of Fill Layer |
| | | Characterize Native Soil |
| RI-BH-19 and RI-BH-20 | 1 | Nature and Extent of Fill Layer |
| RI-MW-1 through RI-MW-5 | 1 | Characterize Soil Surrounding Well Screens |
| SS-1 Through SS-4 | 1 | Characterize Near Surface Soils for Potential Health Risks |

All recovered soil was visually classified and field screened for volatile organic compounds (VOCs) using a photoionization detector (PID). Screening involved exposing the open core to ambient conditions and recording the maximum PID reading.

Soil samples were placed into laboratory-provided containers, packed in coolers with ice, and submitted under chain-of-custody to Eurofins Environment Testing – Buffalo, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory.

### 2.3 GROUNDWATER INVESTIGATION

As part of the Remedial Investigation, 5 overburden monitoring wells were installed to assess groundwater across the site.

#### 2.3.1 WELL CONSTRUCTION

Monitoring wells were constructed at 5 locations between May 28th and May 29th, 2025. Initial drilling was performed using a 4.25-inch diameter hollow stem auger (HSA) advanced to 1 to 2 feet above suspected bedrock. The completed wells (RI-MW-1 through RI-MW-5) were finished to depths of 13 ft, 8 ft, 15 feet, 15 ft and 14.5 feet bgs, respectively. Each well consists of a 2-inch inside diameter (ID), Schedule 40 polyvinyl chloride (PVC) casing with a 5-foot well screen with 0.010-inch slot size. The screened interval was surrounded with clean, porous sand to approximately 1 foot above, followed by a bentonite seal. All wells were completed at grade, fitted with a lockable J-plug, covered with a protective curb box, and labeled for permanent identification.

Drill cuttings and development spoils were containerized in New York State Department of Transportation (NYSDOT) approved drums and labeled for subsequent characterization and disposal in accordance with applicable Resource Conservation and Recovery Act (RCRA) regulations. Well construction logs are provided in Appendix D.

#### 2.3.2 WELL DEVELOPMENT

Monitoring wells RI-MW-2 through RI-MW-5 were developed on May 30th, 2025. Development was conducted using a weighted bailer to remove suspended solids and improve hydraulic connectivity. As noted above, RI-MW-1 was found to be dry and could not be developed. All development water was containerized in NYSDOT-approved drums and labeled according to the well of origin.

No light non-aqueous phase liquid (LNAPL), dense non-aqueous phase liquid (DNAPL), sheen, or notable odors were observed during development. Field parameters—pH, temperature, turbidity, dissolved oxygen (DO), oxidation-reduction potential (ORP), specific conductance, flow rate, and water level—were recorded periodically for stabilization and health and safety monitoring. Visual and olfactory screening and photoionization detector (PID) readings were also conducted.

Final determination regarding the proper disposition of development water (e.g., on-site treatment, off-site disposal, or surface discharge with NYSDEC approval) will be made based on laboratory analytical results. Well development logs are provided in Appendix E.

#### 2.3.3 GROUNDWATER SAMPLING

Groundwater sampling was conducted on June 2nd and 3rd, 2025. Low-flow sampling techniques were employed using a peristaltic pump and dedicated tubing in accordance with NYSDEC-approved procedures.

Field parameters were continuously monitored throughout purging and sampling, consistent with the protocol described in Section 2.3.2. Sampling commenced once stabilization criteria were met and turbidity levels were confirmed to be below 50 Nephelometric Turbidity Units (NTU).

Samples were placed in laboratory-supplied containers, preserved as required, packed in iced coolers, and submitted under chain-of-custody to Eurofins Environment Testing – Buffalo, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Groundwater analytical results are summarized in Table 2, and purge logs are included in Appendix F.

## *2.4 VAPOR INVESTIGATION*

### *2.4.1 VAPOR POINT INSTALLATION*

On May 29th, 2025, 6 vapor points were completed across the Site in unique boreholes to evaluate fill characteristics and identify contamination within shallow subsurface soils. Vapor points were advanced using a track-mounted Geoprobe® 7720DT direct-push drilling rig. Locations were selected to provide representative site coverage, particularly in areas with a history of potential contaminant use or fill placement. Vapor point locations were finalized in the field based on site conditions and the presence of potential subsurface features.

Each vapor point consisted of a ¼-inch outer diameter polyvinyl chloride (PVC) tubing fitted with a 3/8-inch stainless steel mesh screen at the base. The screened interval was surrounded with clean, porous sand to a depth of approximately 2 feet, followed by a bentonite seal to isolate the probe and prevent preferential pathways for vapor migration along the boring annulus. Vapor point construction details are documented in Appendix G.

### *2.4.2 VAPOR POINT SAMPLING*

Soil vapor sampling was conducted after consultation and coordination with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). Sampling locations were selected to provide comprehensive spatial coverage across the Site and were biased toward the deeper boring locations to assess worst-case vapor intrusion potential.

Sampling was conducted over a 24-hour period beginning on May 29th, 2025, using 6-liter SUMMA® canisters equipped with calibrated 24-hour regulators. All sampling activities were performed in accordance with the latest NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 and subsequent amendments).

Canisters were submitted to Eurofins Environment Testing – Burlington, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory, under proper chain-of-custody protocols. Analytical results are summarized in Table 3.

### *2.4.3 QUALITY ASSURANCE/ QUALITY CONTROL SAMPLING*

Quality assurance and quality control (QA/QC) sampling was performed in accordance with the approved Remedial Investigation Work Plan (RIWP) and the site-specific Quality Assurance Project Plan (QAPP). The QA/QC program was designed to ensure data quality objectives were met for precision, accuracy, representativeness, comparability, and completeness. These data are required to support third-party validation and development of a complete Data Usability Summary Report (DUSR).

The following QA/QC samples were collected:

- A matrix spike/matrix spike duplicate (MS/MSD) pair was collected from soil borings completed for monitoring well RI-MW-1 and RI-MW-5.
- A field duplicate sample was collected from the boring hole completed for RI-MW-3 and RI-MW-4 and labeled RI-MW-3-DUP and RI-MW-4-DUP. Results of these duplicate samples are presented in Table 1.
- During groundwater sampling, an MS/MSD pair and a trip blank were collected and submitted with the sample batch.

Laboratory analytical reports are included in Appendix J. The third-party validated Data Usability Summary Reports (DUSRs) are provided in Appendix K as separate attachments.

## 3.0 PHYSICAL CHARACTERISICS OF THE AREA

### *3.1 SURFACE FEATURES*

The Site comprises approximately 2.15 acres and is located at 160-164 East 4th Street in the City of Dunkirk, Chautauqua County, New York. The property is identified as Section-Block-Lot (SBL) No. 79.57-2-15.1 and consists of a single commercial parcel.

A single-story commercial building occupies the eastern-central portion of the Site and includes two storefront units that are structurally connected to an adjacent commercial plaza (located off-site). Surrounding the structure is an asphalt-paved parking area to the south and an undeveloped greenspace to the north. The building is currently vacant and shows signs of deterioration. The parking lot exhibits surface cracking and signs of aging, particularly in the southern portion of the Site. Topographically, the Site exhibits moderate elevation change, sloping gradually downward from south to north.

The land use distribution on the Site is summarized in the table below:

| Description | Location | Acreage | % of total Site area |
|---|---|---|---|
| Building | Central Eastern | 0.28 | 13 |
| Greenspace | North | 0.43 | 20 |
| Hardscape | Across Site | 1.44 | 67 |

The Site is zoned for C-2 General Commercial (Community Business) and is located in a mixed-use urban corridor. Adjacent land uses include:

- **North**: Rail lines and residential housing
- **South**: Commercial and residential
- **East**: Adjacent commercial plaza
- **West**: Municipal buildings and light commercial uses

A Site Location Map and a detailed Site Plan are provided in **Figure 1** and **Figure 2**, respectively.

## 3.2 SUBSURFACE FEATURES

### 3.2.1 SITE GEOLOGY

Subsurface conditions at the Site were evaluated through two Phase II ESA investigations. In September 2023, a total of 15 soil borings were advanced across the property, with 2 borings converted to temporary groundwater monitoring wells. In April 2024, an additional 12 soil borings were completed, including 1 boring converted to temporary well.

In May and August 2025, during the RI an additional 20 soil borings and 5 monitoring wells were completed. In total, 41 soil samples and 6 groundwater samples were collected for analysis.

The soil borings indicate that the Site is generally underlain by urban fill, consisting of brown to black silty clayey sand containing construction-related debris such as brick fragments and concrete. The depth of the fill ranged from approximately 0 to 7 feet below ground surface (bgs). Beneath the fill, the native material typically consisted of stiff red-brown and gray silty clay or clayey silt.

During advancement of the borings, refusal was encountered at depths of approximately 8 feet to 16 feet bgs, which is interpreted to represent the top of bedrock.

### 3.2.2 SITE HYDROGEOLOGY

Based on the results of the Remedial Investigation, groundwater at the Site is present at 5.2 to 9.5 ft. Multiple rounds of topographic/elevation data indicates the following groundwater elevations in feet above sea level (ASL) for each well:

| Well ID | Elevation (feet ASL) |
|---|---|
| RI-MW-2 | 594.35 |
| RI-MW-3 | 589.3 |
| RI-MW-4 | 588.9 |
| RI-MW-5 | 586.75 |

Groundwater was not encountered in RI-MW-1. Based on these observations, groundwater appears to flow northwest.

## 3.2 DEMOGRAPHY AND LAND USE

The Site is currently vacant and underutilized, with zoning and surrounding land uses consistent with a mixed-use commercial and residential corridor within the City of Dunkirk. The property is bordered by a combination of residential neighborhoods, commercial establishments, and municipal facilities, reflecting a diverse urban setting.

The proposed future use of the Site involves the redevelopment of the property into a multi-family residential apartment complex, supported through the New York State Brownfield Cleanup Program (BCP). The planned development will include:

- Multi-family apartment units
- An associated off-street parking area

- Recreational and landscaped greenspace

As part of the proposed redevelopment, the existing commercial building on the Site will be demolished. The planned environmental remedy will proceed under Track 4 (Restricted Residential Use) of the BCP, which allows for redevelopment with the application of site cover systems and institutional/engineering controls as needed to manage residual contamination. This redevelopment will provide long-term community benefit by supporting housing development, eliminating a blighted structure, and promoting the productive reuse of historically impacted land.

## 4.0 LABORATORY ANALYSIS

### *4.1 SOIL*

All soil samples were analyzed for the following:

- Target Compound List (TCL) VOCs + Tentatively Identified Compounds (TICs) – Environmental Protection Agency (EPA) Method 8260
- TCL semi-volatile organic compounds (SVOCs) + TICs – EPA Method 8270
- Target Analyte List (TAL) Metals (Including mercury and total cyanide) – EPA Method 6010/7470/7471
- PCBs – EPA Method 8280
- TCL Pesticides – EPA Method 8081
- 1,4-dioxane – EPA Method 8270SIM
- PFAS – EPA Method 1633

### *4.2 GROUNDWATER*

All groundwater samples were analyzed for the following:

- TCL VOCs and TICs-EPA Method 8260
- TCL SVOCs – EPA Method 8270
- TAL Metals + cyanide-EPA Method 6010/7470/7471
- PCBs – EPA Method 8280;
- Pesticides– EPA Method 8081;
- 1,4-dioxane– EPA Method 8270SIM
- PFAS – EPA Method 1633

### *4.3 SOIL VAPOR*

Soil vapor samples were analyzed for TCL VOCs by EPA Method TO-15.

## 5.0 DISCUSSION OF RESULTS

### *5.1 SOIL SAMPLING ANALYTICAL RESULTS*

All RI soil sampling results exceeding unrestricted SCOs are listed on **Figure 4** and **Figure 5**. All RI sampling results exceeding restricted residential SCOs are listed on **Figure 6.**

### 5.1.1 METALS

A multitude of soil samples exceeded various metal SCOs as specified in the tables below.

| Unrestricted Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Arsenic | RI-BH-17 8-11’ | 15.2 | 13 |
| | RI-BH-18 5-8’ | 13.9 | |
| | RI-BH-19 3-5’ | 14.2 | |
| Chromium | RI-BH-1 2-5’ | 19.4 | 1 |
| | RI-BH-2 1-4’ | 17.9 | |
| | RI-BH-3 2-5’ | 19.5 | |
| | RI-BH-4 1-4’ | 13.7 | |
| | RI-BH-5 1-5’ | 14.0 | |
| | RI-BH-5 5-8’ | 16.1 | |
| | RI-BH-6 1-3’ | 19.1 | |
| | RI-BH-6 4-7’ | 20.3 | |
| | RI-BH-7 4-6’ | 15.4 | |
| | RI-BH-8 1-4’ | 10.7 | |
| | RI-BH-9 6-9’ | 17.1 | |
| | RI-BH-11 1-4’ | 17.0 | |
| | RI-BH-12 1-3’ | 11.8 | |
| | RI-BH-14 0-3’ | 20.0 | |
| | RI-BH-15 0-3’ | 6.0 | |
| | RI-BH-15 7-10’ | 15.2 | |
| | RI-BH-16 0-3’ | 21.5 | |
| | RI-BH-17 0-3’ | 21.5 | |
| | RI-BH-17 0-3’ | 16.8 | |
| | RI-BH-18 0-3’ | 21.5 | |
| | RI-BH-18 5-8’ | 12.6 | |
| | RI-BH-19 3-5’ | 18.5 | |
| | RI-BH-20 2-4’ | 15.6 | |
| | RI-MW-1 8-11’ | 17.7 | |
| | RI-MW-2 4-7’ | 19.1 | |
| | RI-MW-3 8-11’ | 17.1 | |
| | RI-MW-3 DUP 8-11’ | 18.4 | |
| | RI-MW-4 9-12’ | 15.1 | |
| | RI-MW-4 DUP 9-12’ | 14.4 | |
| | RI-MW-5 9-12’ | 14.1 | |
| | SS-2 0.17-0.5’ | 15.5 | |
| Copper | RI-BH-1 2-5’ | 56.5 | 50 |
| | RI-BH-2 1-4’ | 76.3 | |
| | RI-BH-7 1-4’ | 62.8 | |
| | RI-BH-16 0-3’ | 53.7 | |
| | RI-BH-17 0-3’ | 67.8 | |
| | RI-BH-18 5-8’ | 51.0 | |
| | RI-BH-19 3-5’ | 57.3 | |
| | SS-3 0.17-0.5’ | 109 | |

| | | | |
|---|---|---|---|
| Lead | RI-BH-1 2-5’ | 283 | 63 |
| | RI-BH-2 1-4’ | 284 | |
| | RI-BH-6 1-3’ | 262 | |
| | RI-BH-8 1-4’ | 96.6 | |
| | RI-BH-10 1-4’ | 64.3 | |
| | RI-BH-11 1-4’ | 67.5 | |
| | RI-BH-17 0-3’ | 293 | |
| | RI-BH-18 0-3’ | 64.3 | |
| | SS-1 0.17-0.5’ | 168 | |
| | SS-2 0.17-0.5’ | 72.4 | |
| | SS-3 0.17-0.5’ | 101 | |
| | SS-4 0.17-0.5’ | 157 | |
| Manganese | RI-BH-1 2-5’ | 1880 | 1600 |
| Mercury | RI-BH-2 1-4’ | 0.54 | 0.18 |
| | RI-BH-6 1-3’ | 0.42 | |
| | RI-BH-7 1-4’ | 0.34 | |
| | RI-BH-8 1-4’ | 0.24 | |
| | RI-BH-9 1-3’ | 0.41 | |
| | RI-BH-12 1-3’ | 0.62 | |
| | RI-BH-19 3-5’ | 0.66 | |
| | SS-1 0.17-0.5’ | 0.22 | |
| | SS-4 0.17-0.5’ | 0.25 | |
| Nickel | RI-BH-2 5-8’ | 35.6 | 30 |
| | RI-BH-6 4-7’ | 33.6 | |
| | RI-BH-7 4-6’ | 40.6 | |
| | RI-BH-8 6-9’ | 37.8 | |
| | RI-BH-11 6-9’ | 35.5 | |
| | RI-BH-14 0-3’ | 35.5 | |
| | RI-BH-15 7-10’ | 33.6 | |
| | RI-BH-17 8-11’ | 32.0 | |
| | RI-BH-19 3-5’ | 39.1 | |
| | RI-MW-1 8-11’ | 36.8 | |
| | RI-MW-2 4-7’ | 46.4 | |
| | RI-MW-3 8-11’ | 42.3 | |
| | RI-MW-3 DUP 8-11’ | 43.8 | |
| | RI-MW-4 9-12’ | 32.2 | |
| | SS-1 0.17-0.5’ | 31.6 | |
| | SS-4 0.17-0.5’ | 36.7 | |
| Zinc | RI-BH-1 2-5’ | 149 | 109 |
| | RI-BH-1 6-9’ | 147 | |
| | RI-BH-2 1-4’ | 167 | |
| | RI-BH-3 2-5’ | 155 | |
| | RI-BH-6 1-3’ | 127 | |
| | RI-BH-7 1-4’ | 638 | |
| | RI-BH-9 1-3’ | 370 | |
| | RI-BH-14 0-3’ | 213 | |
| | RI-BH-16 0-3’ | 122 | |
| | RI-BH-17 0-3’ | 328 | |

| | | | |
|---|---|---|---|
| | RI-BH-17 8-11’ | 158 | |
| | RI-BH-18 0-3’ | 113 | |
| | RI-BH-19 3-5’ | 892 | |
| | RI-MW-5 9-12’ | 158 | |
| | SS-1 0.17-0.5’ | 156 | |
| | SS-2 0.17-0.5’ | 132 | |
| | SS-3 0.17-0.5’ | 155 | |
| | SS-4 0.17-0.5’ | 153 | |

| Residential Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Barium | RI-BH-4 1-4’ | 368 | 350 |
| | RI-BH-10 1-4’ | 354 | |
| | RI-BH-20 2-4’ | 364 | |
| Chromium | RI-BH-1 6-9’ | 29.0 | 22 |
| | RI-BH-2 5-8’ | 28.2 | |
| | RI-BH-7 4-6’ | 23.5 | |
| | RI-BH-8 6-9’ | 26.4 | |
| | RI-BH-10 1-4’ | 24.1 | |
| | RI-BH-11 6-9’ | 28.5 | |
| | RI-BH-13 1-4’ | 23.3 | |
| | SS-1 0.17-0.5’ | 26.4 | |
| | SS-3 0.17-0.5’ | 24.2 | |
| | SS-4 0.17-0.5 | 28.2 | |

| Restricted Residential Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Lead | RI-BH-9 1-3’ | 687 | 400 |
| | RI-BH-16 0-3’ | 409 | |
| | RI-BH-19 3-5’ | 454 | |
| Mercury | RI-BH-1 2-5’ | 1.2 | 0.81 |
| | RI-BH-18 0-3’ | 1.0 | |

| Commercial Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Barium | RI-BH-2 5-8’ | 531 | 400 |
| | RI-BH-7 1-4’ | 865 | |
| Copper | RI-BH-9 1-3’ | 598 | 270 |

| Industrial Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Arsenic | RI-BH-4 1-4’ | 41.5 | 16 |
| | RI-BH-7 1-4’ | 33.4 | |
| | RI-BH-10 1-4’ | 19.8 | |
| | RI-BH-20 2-4’ | 16.4 | |
| | SS-2 0.17-0.5’ | 17.2 | |

| | | | |
|---|---|---|---|
| Lead | RI-BH-7 1-4’ | 4950 | 3900 |

### *5.1.2 SVOC’s*

A multitude of soil samples exceeded various SVOC SCOs as specified in the tables below.

| Unrestricted Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Phenol | RI-MW-1 8-11’ | 1.8 | 0.33 |
| | RI-MW-2 4-7’ | 6.3 | |
| | RI-MW-3 8-11’ | 1.8 | |
| | RI-MW-3 DUP 8-11’ | 3.9 | |
| | RI-MW-4 9-12’ | 1.7 | |
| | RI-MW-4 DUP 9-12’ | 0.76 | |
| | RI-MW-5 9-12’ | 0.42 | |

| Residential Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Benzo(k)fluoranthene | RI-BH-2 1-4’ | 1 | 1 |
| | RI-BH-7 1-4’ | 2.6 | |
| | SS-1 0.17-0.5’ | 1.7 | |
| Chrysene | RI-BH-2 1-4’ | 1.5 | 1 |
| | SS-1 0.17-0.5’ | 3.6 | |
| | SS-4 0.17-0.5’ | 1.4 | |

| Restricted Residential Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Benzo(a)anthracene | RI-BH-7 1-4’ | 4.3 | 400 |
| | RI-BH-16 0-3’ | 409 | |
| | SS-1 0.17-0.5’ | 2.9 | |
| Benzo(b)fluoranthene | RI-BH-2 1-4’ | 2 | 1 |
| | RI-BH-7 1-4’ | 4.7 | |
| | SS-1 0.17-0.5’ | 4.9 | |
| | SS-2 0.17-0.5’ | 1.5 | |
| | SS-4 0.17-0.5’ | 1.8 | |
| Chrysene | RI-BH-7 1-4’ | 4.3 | 3.9 |
| Indeno(1,2,3-cd)pyrene | RI-BH-2 1-4’ | 0.88 | 0.5 |
| | RI-BH-7 1-4’ | 2.3 | |
| | SS-1 0.17-0.5’ | 2.4 | |
| | SS-4 0.17-0.5’ | 0.87 | |

| Commercial Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Dibenz(a,h)anthracene | RI-BH-9 1-3’ | 598 | 270 |

| Industrial Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Benzo(a)pyrene | RI-BH-2 1-4' | 1.3 | 1.1 |
| | RI-BH-7 1-4' | 4.1 | |
| | SS-4 0.17-0.5' | 1.1 | |

### 5.1.3 *VOC's*

| Unrestricted Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Acetone | RI-BH-4 1-4' | 0.2 | 0.05 |
| | RI-BH-5 5-8' | 0.26 | |
| | RI-BH-10 1-4' | 0.11 | |
| | RI-BH-13 1-4' | 0.16 | |
| | RI-BH-17 8-11' | 0.08 | |

### *5.1.4 Organochlorine Pesticides*

| Unrestricted Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| 4,4'-DDD | RI-BH-4 1-4' | 0.0081 | 0.0033 |
| | RI-BH-7 1-4' | 0.019 | |
| | RI-BH-16 0-3' | 0.0038 | |
| | RI-BH-19 3-5' | 0.0054 | |
| 4,4'-DDE | RI-BH-16 0-3' | 0.0066 | 0.0033 |
| | RI-BH-19 3-5' | 0.0043 | |
| 4,4'-DDT | RI-BH-1 2-5' | 0.0037 | 0.0033 |
| | RI-BH-1 6-9' | 0.0036 | |
| | RI-BH-2 1-4' | 0.064 | |
| | RI-BH-7 1-4' | 0.025 | |
| | RI-BH-10 1-4' | 0.012 | |
| | RI-BH-12 1-3' | 0.0036 | |
| | RI-BH-13 1-4' | 0.069 | |
| | RI-BH-16 0-3' | 0.017 | |
| | RI-BH-17 0-3' | 0.0042 | |
| | RI-BH-18 0-3' | 0.0035 | |
| | RI-BH-19 3-5' | 0.0039 | |
| | RI-MW-1 8-11' | 0.057 | |

### *5.1.5 PCB's*

There were no exceedances of PCB's found in any of the soils samples taken.

### 5.1.6 PFAS

| Unrestricted Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Perfluorooctanesulfonic acid (PFOS) | RI-BH-18 0-3' | 1.6 | 0.88 |

## 5.2 GROUNDWATER SAMPLE ANALYTICAL RESULTS

All RI groundwater sampling results exceeding TOGS 1.1.1 guidelines are listed on **Figure 7**.

### 5.2.1 METALS

| TOGS Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Iron | RI-MW-2 | 0.77 | 0.3 |
| | RI-MW-3 | 1.3 | |
| | RI-MW-4 | 0.35 | |
| Magnesium | RI-MW-3 | 36.6 | 35 |
| | RI-MW-4 | 47.8 | |
| | RI-MW-5 | 43.8 | |
| Manganese | RI-MW-3 | 0.34 | 0.3 |
| | RI-MW-4 | 0.47 | |
| | RI-MW-5 | 2.6 | |

### 5.2.2 SVOC's

There were no exceedances for SVOCs in any of the wells sampled.

### 5.2.3 VOC's

| TOGS Exceedances | | | |
|---|---|---|---|
| **Analyte** | **Sample ID** | **Result** | **Standard** |
| Acetone | RI-MW-5 | 51 | 50 |

### 5.2.4 ORGANOCHLORINE PESTICIDES

There were no exceedances for organochlorine pesticides in any of the wells sampled.

### 5.2.5 PCB's

There were no exceedances for PCBs in any of the wells sampled.

### 5.2.6 PFAS

There were no exceedances for PFAS in any of the wells sampled.

## 6.0 FATE AND TRANSPORT OF CONTAMINANTS OF CONCERN

The soil, groundwater and soil vapor sample analytical results were incorporated with the physical Site conditions to evaluate the fate and transport of COC in Site media. The mechanisms through which the COC can migrate to other areas or media are briefly outlined below. The potential pathways are evaluated in the context of pre-remedial conditions.

### *6.1 FUGITIVE DUST*

Contaminants present in soil can be released into ambient air due to fugitive dust generation from disturbance of dry friable soils. The Site currently contains one dilapidated building surrounded by asphalt parking and minimal greenspace which limits any fugitive dust generation.

During demolition, redevelopment construction and remedial work, fugitive dust may be generated. A Health and Safety Plan (HASP) along with a CAMP will be prepared, as required, by the RAWP, which will minimize fugitive dust concerns during this time. The fugitive dust migration pathway is not presently a relevant pathway, however, during remediation activities, fugitive dust migration will be more relevant and not be relevant thereafter due to the proposed soil cover system and new development. During construction activities, the contractor will institute dust control measures per the site specific January 2024 Stormwater Management Report (SWMR).

### *6.2 SURFACE WATER*

The potential for impacted soil particle transport with surface water runoff is considered low due to the hardscape and existing vegetative cover over impacted soil across the Site. Although heavy rainfall can cause erosion in greenspace areas, no sensitive receptors are present within close proximity to the Site.

Redevelopment will include new structures, paved areas, and landscaping. The January 2024 SWMR will control storm water during construction and remediation activities. The redevelopment design includes substantial bioretention planters to handle surface water upon completion of redevelopment. Therefore, the movement of impacted soil by surface water runoff is not considered a relevant migration pathway.

### *6.3 VOLITILIZATION*

No VOCs were detected above their SCOs in soil samples from the RI or previous investigations. Groundwater samples collected from on-site wells during the RI indicated that VOCs are not present in groundwater above TOGS 1.1.1 guidance values.

### *6.4 LEACHING*

Leaching refers to contaminants in soil/fill migrating into groundwater due to infiltration of stormwater.

VOCs, SVOCs, PCBs, and pesticides were not detected above TOGS 1.1.1 guidance values in the groundwater samples collected from the 4 productive monitoring wells during the RI. Although the metals Iron, Magnesium, Manganese, and Sodium were detected above TOGS 1.1.1 guidance values, constituents are likely naturally occurring as a result of native minerals

in the subsurface.

VOCs were not detected in the soil samples above any SCOs, however, both SVOCs (primarily PAHs) and metals were detected in the site soils above restricted residential SCOs. PAHs and metals are not very mobile in soils in that they have low solubility with water and tend to adsorb to the soil grains.

### *6.5 GROUNDWATER TRANSPORT*

Based on groundwater elevation data, groundwater on the Site appears to flow northwest. As previously noted in Section 5.4.2 (Contaminants of Concern – Groundwater), there are no contaminants of concern in groundwater. No exceedances of TOGS 1.1.1 guidance values were noted that could not be attributed to natural conditions.

Although sodium, iron, magnesium, and manganese were detected above guidance values, all constituents can be naturally occurring. Natural sources of these metals include weathered rocks and minerals. These conditions were consistently noted throughout the Site.

In addition, the Site and surrounding area are serviced by municipal water. The Site Management Plan (SMP) will also prohibit the use of groundwater for drinking or process use. Therefore, significant potential exposure of local receptors to contaminants in the groundwater is minimal.

### *6.6 EXPOSURE PATHWAY SUMMARY*

Based on the above assessment, the pathways through which COC could reach receptors at significant exposure concentrations are minimal. The more probable pathways of stormwater and fugitive dust will be mitigated using pollution prevention and dust suppression control measures during remedial and construction activities.

## 7.0 QUALITATIVE EXPOSURE ASSESSMENT

A Qualitative Human Health Exposure Assessment (QHHEA) was completed in general accordance with Appendix 3B of DER-10 to identify potential exposure pathways associated with the COC at the Site. The exposure pathway elements are summarized as follows:

| **Qualitative Exposure Assessment Summary** | |
|---|---|
| **Environmental Media & Exposure Route** | **Human Exposure Assessment** |
| Direct contact with surface soils (and incidental ingestion) | **Current:** People should not come into contact with contaminated surface soils as they are primarily covered by asphalt and vegetative cover. |
| | **Future:** People may contact contaminated surface soils during ground-intrusive work. |
| Direct contact with subsurface soils (and incidental ingestion) | **Current:** There is no current concern for contact with subsurface soils as there is no ground-intrusive work being performed at the Site. |
| | **Future:** People may come into contact with subsurface soils during ground-intrusive work. |
| Ingestion of groundwater | **Current:** Groundwater at the Site does not |

| | |
|---|---|
| | appear impacted. Additionally, contaminated groundwater is not being used for drinking water in the surrounding area as the City of Dunkirk is served by a treated public water supply. There are no know private domestic water supply wells in the area of the Site. |
| | **Future:** The planned development will be served by treated municipal water (City of Dunkirk). |
| Direct contact with groundwater | **Current:** There is no current access to groundwater. |
| | **Future:** People may come into contact with groundwater during ground intrusive work. However, groundwater is not thought to be impacted. |
| Direct contact with surface water or sediment (and incidental ingestion) | **Current:** There are no water bodies on or within proximity of the Site, therefore direct contact with contaminated surface water or sediment is possible. |
| | **Future:** No water features capable of providing recreation use or supporting aquatic life are planned at the Site. |
| Inhalation of air (exposures related to SVI) | **Current:** SVI is not a current concern at the Site. |
| | **Future:** SVI concern is not foreseeable. Although not required as a component on the BCP, a sub-slab depressurization system (SSDS) is included in Site plans to mitigate radon. |

### 7.1.1 Contaminant Sources

Metals and PAHs exceeding regulatory standards were consistently observed throughout Site soils. Based on previous investigations, the overburden is almost entirely composed of impacted fill, ranging in depth from 0 to 7 feet bgs.

An elevated concentration of Heptane was noted in one vapor point located within the existing building on Site. The vapor point is currently covered by existing hardscape (i.e. concrete slab). Based on the lack of VOC exceedances in soil and groundwater samples, no point contaminant sources have been identified.

### 7.1.2 Contaminant Release and Transport Mechanisms

The only release/transport of impacted soils to an exposed population would be through fugitive dust and rain that may result in soil erosion. However, as previously noted, the Site currently contains a large building surrounded by asphalt parking and minimal greenspace which limits any fugitive dust generation along with erodible soils.

### 7.1.3 Potential Exposure Points

Currently, direct contact exposure to impacted soil is low due to the predominant hardscape and low percentage of soil cover over the Site. Future contact may occur during soil excavation activities.

#### 7.1.4 Routes of Exposure

The only viable current or future routes of exposure would be direct contact or inhalation/ingestion of impacted soils.

#### 7.1.5 On-Site Receptors

The on-site receptor population would be customers and employees of the adjacent commercial plaza and surrounding businesses that may use the site for parking.

Future construction workers may encounter impacted soils during Site work. The entire boundary of the Site will be fenced off during construction and will not be accessible to outside personnel. Future residents should not encounter impacted soils as the entire Site will be covered by hardscape or two feet of clean fill in greenspace areas.

#### 7.1.6 Off-Site Receptors

Although limited, off-site migration of contaminants could potentially impact off-site receptor populations. As noted above in Section 6.1: Fugitive Dust, the fugitive dust migration pathway is not presently a relevant pathway.

During future remedial activities, fugitive dust migration will be more relevant and not be relevant thereafter due to the proposed soil cover system and new development. Should contaminants in impacted surface soil become airborne, off-site receptors could be exposed to the inhalation of particulates. The off-site receptor population includes passersby's, and customers and employees of surrounding businesses.

### *7.2 ECOLOGICAL EXPOSURE RISKS*

The Fish and Wildlife Resources Impact Analysis (FWRIA) Decision Key provided in Appendix 3C of DER-10 was completed during development of the RIWP and is included in **Appendix H**. No FWRIA is required based on the completed decision key process. This determination is based on the following:

- The Site is currently zoned C-2 General Commercial (Community Business) and is located in a mixed-use urban corridor
- The contamination at the Site has very low potential to migrate into or impact any off-site habitat of endangered, threatened, or special concern species or other fish and wildlife resources. There are no critical habitats onsite or nearby. The Full Environmental Assessment Form (FEAF) and Environmental Resource Mapper were consulted to make this determination.

## 8.0 REMEDIAL ALTERNATIVES ANALYSIS

### *8.1 REMEDIAL ACTION OBJECTIVES*

The final remedial measures for the Site must satisfy Remedial Action Objectives (RAOs), which are site-specific statements that convey the goals for minimizing or eliminating substantial risks to human health and the environment. No RAOs were identified in relation to groundwater. The primary RAOs identified for the Site are the following:

**Soil**

Public Health Protection RAOs

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation exposure to contaminants volatilizing from soil.

Environmental Protection RAOs

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

**Soil Vapor**

Public Health Protection RAOs

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

## *8.2 ALTERNATIVES SELECTION FACTORS*

In addition to achieving RAOs, NYSDEC's BCP requires an evaluation of remedial alternatives in accordance with 6 NYCRR Part 375-3 and DER-10. This alternative analysis evaluates the remedial options developed for the Site against the following selection factors:

- **Overall Protection of Public Health and the Environment**. This criterion evaluates a remedy's ability to achieve the public health and environmental RAOs through the assessment of existing and potential exposure pathways to be eliminated, reduced, or mitigated through removal, treatment, or ECs/ICs.
- **Compliance with SCGs**. This criterion addresses whether a remedy will meet applicable environmental regulations, standards, and guidance. The SCGs applicable to this site are listed in Section 1.2.
- **Long-Term Effectiveness and Permanence**. This criterion evaluates the long-term effectiveness and permanence of an alternative or remedy after implementation.
- **Reduction of Toxicity, Mobility or Volume with Treatment**. This criterion evaluates the remedy's ability to reduce the toxicity, mobility, or volume of Site contamination through treatment. Preference is given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the contamination at the Site.
- **Short-Term Effectiveness**. This criterion evaluates the potential short-term impacts to human health and the environment during remediation, including control measures of adverse conditions and their effectiveness (e.g., stormwater controls, dust controls, etc.). The length of time needed to achieve the RAOs and sustainability is also evaluated.
- **Implementability**. This criterion evaluates the technical and administrative feasibility of implementing the remedy including the difficulties associated with construction and monitoring the effectiveness of the remedy. The availability of labor, equipment, and material is evaluated in addition to operational approvals, logistics, permitting, etc.
- **Cost**. This criterion evaluates the overall cost of an alternative.
- **Community Acceptance**. This criterion evaluates the public's comments, concerns, and overall perception of the alternative.

## 8.3 LAND USE EVALUATION

The Site is located within an urbanized, mixed-use area of the City of Dunkirk, Chautauqua County, New York. Surrounding land uses include residential neighborhoods, public infrastructure, and light commercial operations. The proposed future use of the Site involves redevelopment into multi-family residential housing with associated parking areas and designated recreational or greenspace.

This land use category is appropriate considering the planned Site cover system, potential for on-site exposure, and compatibility with surrounding zoning and infrastructure. No ongoing industrial or agricultural activities are present, and no active groundwater use occurs on-site or nearby. The selected remedy must support this redevelopment scenario while addressing all SCGs related to soil, groundwater, and vapor intrusion.

## 8.4 SELECTION OF ALTERNATIVES FOR EVALUATION

In accordance with DER-10 and the applicable NYSDEC regulations under 6 NYCRR Part 375, remedial alternatives must be developed and evaluated based on the findings of the Remedial Investigation, intended site use, and the extent of contamination. The primary objective of this section is to identify reasonable and applicable cleanup options that align with the future use of the site and ensure the protection of public health and the environment. Two alternatives have been selected for detailed evaluation.

### *8.4.1 ALTERNATIVE 1 : TRACK 4: RESTRICTED RESIDENTIAL REMEDIATION*

A Track 4 cleanup generally involves removing all Site soils exceeding restricted residential criteria to specified depth and the creation of a cover system to meet Part 375 3.8 and 6.8(b) restricted residential use SCOs. Removal includes all soils above final grade requirements and an additional 2 feet of removal in non-hardscaped areas. The hardscaped areas (i.e., building footprint, parking lot and sidewalks) would be composed of approximately one foot of material which would function as a component of the cover system. All non-hardscaped/greenspace areas would be covered with 2 feet of clean imported fill meeting the provisions of NYSDEC DER-10 Subdivision 5.4(e) Appendix 5 (see **Figure 9**). Details of this alternative include the following:

1. Concrete slabs and other hardscape are to be removed within the BCP boundary to accommodate new development. The top two feet of surface soils beneath the removed slabs/hardscape and in the remaining open areas that are not otherwise to be covered by components of the new development (e.g. buildings, pavement) shall not exceed Restricted Residential SCOs.
2. All soils across the Site above final grade requirements and an additional 2 feet of material in future non-hardscape/greenspace areas will be removed and disposed of at an approved landfill. The estimated total volume of soil requiring removal is 6,300 tons.
3. Approximately 5,200 tons of clean fill will be imported to the Site to provide a 2-foot cover system in greenspace areas.
4. Confirmatory samples will be conducted after the excavation of on-site soils. A figure with proposed sampling locations will be included in the RAWP.
5. During RI sampling, specific borings were identified that did not appear to have Restricted Residential SCO exceedances. The general areas around these borings are delineated on Figure 9. Although unlikely due to the observed urban fill layer found across the site ranging from 0 to 7 feet bgs, soils excavated in this area may be suitable

for reuse. Final determination will be made during excavation by the onsite QEP in accordance with 6 NYCRR Parts 360 and 375.

6. An SVI investigation during the heating season will be completed after the proposed building is complete to assess potential soil vapor intrusion concerns Details of the SVI investigation will be provided in the RAWP.
7. Upon completion of remediation, provisions for managing the Site will be provided through an Environmental Easement (EE) which outlines Institutional Controls (ICs) and Engineering Controls (ECs).
8. Imposition of an IC in the form of an EE for the controlled party includes the following:
    a. The remedial party or site owner must complete and submit a periodic certification of IC/EC in accordance with NYSDEC Part 375-1.8(h)(3).
    b. Allows the use and development of the controlled property for restricted residential, commercial, and industrial uses as defined by Part 375-1.8(g)., although land use is subject to local zoning laws.
    c. Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH.
    d. Requires compliance with the approved Site Management Plan.
9. An SMP is required that includes the following:
    a. An IC/EC plan that identifies all use restrictions and ECs for the Site and details the steps and media specific requirements necessary to ensure the IC and/or ECs remain in place and effective. The ICs are as discussed above, and the only EC is a soil cover system.
    b. An Excavation Plan which details provisions for management of future excavations in areas of remaining contamination.
    c. Descriptions of the provisions of the EE including any land use or groundwater use restrictions.
    d. Provisions for the management and inspection of the identified ECs.
    e. Maintaining site access controls and NYSDEC notifications.
    f. The steps necessary for the periodic reviews and certifications of the IC/ECs.

**Overall Protection of Public Health and the Environment –** Alternative 1 is protective of human health and the environment with the removal of two feet of impacted soil from open areas external to the building and backfilling with two feet of clean soil or hardscape. The clean soil and hardscape covered areas will be incorporated into the SMP as an EC for the Site and IC/ECs will be implemented to prevent more restrictive forms of future site use (e.g., unrestricted and residential) and restrict any use of the groundwater at the Site. Under ICs/ECs, the cover system will be inspected, monitored and maintained. The SMP Excavation Work Plan (EWP) will apply to any future disturbance of soils beneath the cover system. The SMP also requires the implementation of an approved HASP for all future work.

**Compliance with SCGs** – Alternative 1 is a Part 375 Track 4 remedy with some soils exceeding the restricted residential SCOs remaining below an approved cover system.

**Long-Term Effectiveness and Permanence –** The removal of the open area impacted fill soils to meet restricted residential SCOs and backfilling with clean fill and hardscape meets the RAOs for soil in this area. Although groundwater contamination is not a concern, there will be a restriction on the use of groundwater at the Site. The SMP requires periodic inspection and monitoring of the cover system for the Site to assure its integrity and the SMP EWP will apply to any future disturbance of the remaining impacted soils including the requirement to prepare an approved HASP for all work.

**Reduction of Toxicity, Mobility, or Volume with Treatment –** The remedial measure will either permanently or significantly reduce the mobility of contamination in the soils at the Site through the cover system. The volume of impacted soil will be reduced at the Site by excavation and offsite disposal of the top two feet of impacted soil across open areas and one foot in areas to be hardscaped.

The SMP will include an EWP to address any impacted soil/fill encountered during future development and/or maintenance activities and include a site-wide Inspection program to assure that the ICs/ECs placed on the Site have not been altered and remain effective. This alternative will not, however, reduce the toxicity of the soil contaminants left in place upon completion of the remedial measure. Therefore, this alternative partially satisfies this criterion.

**Short-Term Effectiveness –** Although minimal, potential short-term adverse impacts and human exposures may occur during construction (remediation and new development). A RAWP will be implemented prior to remediation which will require the contractor to prepare and implement a site-specific HASP to cover all workers. Periodic inspections of the cover system per the SMP requirements will prevent ingestion/direct contact with contaminated soil and prevent inhalation of contaminants in soil that may remain below the cover system. This alternative is sustainable through the EE and implementation of the SMP.

**Implementability –** There are no implementation issues related to the proposed remediation or related to the ICs/ECs placed on the Site under this alternative.

**Community Acceptance** – Community acceptance will be evaluated based on comments to be received from the public in response to fact sheets, public comment periods, and other planned citizen participation activities. Currently, no public comments have been received regarding the BCP activities at the Site.

**Cost –** The values used in estimating alternatives are order-of-magnitude estimates for comparing alternatives and are not meant to be a specific remedial criterion. The estimated cost for Alternative 1 – Track 4 Restricted Residential Use Alternative is approximately $1.3 million. The associated cost summary is provided in **Appendix I**.

**Green Remediation** – This alternative will follow a shorter remedial timeline as there will be less excavation and disposal of impacted materials. A shorter remedial timeline implies less total energy use and less emissions. Less excavation and disposal implies reduced waste/landfilling, use of heavy equipment, truck travel, localized noise, vibration and wear and tear on roads. Some additional efforts will be required to import clean fill to compose the required cover system.

### *8.4.2 ALTERNATIVE 2: TRACK 1: UNRESTRICTED USE REMEDIATION*

A Track 1 cleanup involves removal of all Site soils exceeding unrestricted criteria to meet Part 375 3.8 and 6.8(a) unrestricted use SCOs. Based on the RI, all Site soils exceed unrestricted criteria and therefore excavation to bedrock across the entire Site would be required. Details of this alternative include the following:

1. All soils across the entire Site will be removed to approximately 8 feet bgs. The removal of impacted soil will include the removal of all existing building slabs and hardscape areas and backfill all areas with clean soil to meet new development grades. The

approximate volume of soil amounts to 17,000 tons.
2. Clean fill meeting the provisions of NYSDEC DER-10 Subdivision 5.4(e) Appendix 5 will be imported to the Site to meet final grade requirements. The approximate volume of soil/stone amounts to 15,500 tons.

**Overall Protection of Public Health and the Environment** – This alternative would achieve the corresponding Part 375 SCOs, which are designed to be protective of human health under any reuse scenario.

**Compliance with SCGs** – This alternative would comply with SCOs, as all non-compliant material would be removed from the Site.

**Long-Term Effectiveness and Permanence** – This alternative would achieve removal of all contaminant sources and residual impacted soil. No soil exceeding the unrestricted SCOs would remain on the Site. As such, this alternative would provide long-term effectiveness and permanence. Post-remedial monitoring and controls would not be required.

**Reduction of Toxicity, Mobility, or Volume with Treatment** – This alternative would permanently reduce the toxicity and mobility of Site contamination through the removal of impacted Site soils. Although this is not considered a treatment technology and the volume of contamination would remain the same, removal is very effective in eliminating toxicity and mobility.

**Short-Term Effectiveness** – The short-term effectiveness of this alternative to the community, workers, and environment during implementation of the unrestricted use alternative would be marginal. The exposure time to community, workers, and the environment from possible fugitive dust or other migration pathways would increase during the excavation, packaging, and offsite disposal of significant quantities of soil and debris. However, within approximately 6 months, the site would be remediated of all soil contamination.

**Implementability** – Technical implementability of the unrestricted use alternative is high. Demolition, remediation, excavation, and removal activities are associated with standard construction techniques, but impacted soil removal may require excavation below the groundwater table.

**Community Acceptance** – Community acceptance will be evaluated based on comments to be received from the public in response to fact sheets, public comment periods, and other planned citizen participation activities. Currently, no public comments have been received regarding the Site.

**Cost** – The cost of implementing a Track 1 Unrestricted Use alternative is estimated at approximately $3.6 million. (Refer to **Appendix I**).

**Green Remediation** –This alternative will follow a longer remedial timeline as there will be more excavation and disposal of impacted materials. A longer remedial timeline implies more total energy use and more emissions. More excavation and disposal implies additional waste/landfilling, use of heavy equipment, truck travel, localized noise, vibration and wear and tear on roads. This alternative will address the source of contamination more aggressively (i.e., complete removal of impacted materials), which will reduce long-term operation and maintenance of treatment or containment systems (i.e., a cover system).

### 8.5 RECOMMENDED REMEDIAL ALTERNATIVE

The evaluation of remedial alternatives for the Site considered key selection factors outlined in DER-10, including protection of public health and the environment, compliance with Standards, Criteria, and Guidance (SCGs), long-term effectiveness, short-term impacts, implement ability, and cost. Both Track 1 (Unrestricted Use) and Track 4 (Restricted Residential Use) are protective of human health and the environment; however, Track 1 requires full attainment of the most stringent SCOs and complete contaminant removal, which is not feasible due to widespread exceedances of metals and SVOCs in subsurface soils and the substantial cost and disruption associated with deep excavation and disposal. While Track 1 would eliminate the need for long-term management, Track 4 remains fully protective by employing a compliant site cover system, institutional controls, and a Site Management Plan (SMP), thereby effectively isolating contaminants and mitigating exposure risks. Track 4 also aligns with the intended residential redevelopment and is more readily implementable, with lower short-term construction risks and fewer logistical challenges. Additionally, groundwater exceedances of naturally occurring elements such as sodium, iron, magnesium and manganese do not indicate off-site migration of contaminants of concern, further supporting a Track 4 approach. Therefore, while both alternatives satisfy regulatory requirements, Track 4 is the preferred remedy due to its balance of protectiveness, practicality, cost-effectiveness, and compatibility with proposed site use.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

The Remedial Investigation was completed in accordance with the July 2025 NYSDEC-approved RI Work Plan, with minor deviations documented and communicated appropriately. Analytical data confirm the presence of contamination across the Site that exceeds applicable SCGs, including metals and PAHs. Groundwater monitoring identified elevated concentrations of naturally occurring constituents such as sodium, iron, magnesium and manganese. An elevated concentration of Heptane was noted in one vapor point located within the existing building on Site. The vapor point is currently covered by existing hardscape (i.e. concrete slab) and will continue to be covered by hardscape after redevelopment. Although not required as a component on the BCP, an SSDS is included in Site plans with the primary purpose of mitigating radon which will also mitigate potential soil vapor intrusion.

Given the proposed redevelopment of the Site for multi-family residential use with associated green space and parking, and considering the nature and extent of contamination, full unrestricted cleanup under Track 1 is not practical. Instead, Track 4 – Restricted Residential Use with a site cover system, institutional controls, and long-term management – is recommended. This remedial approach meets the objectives of protecting human health and the environment, complies with SCGs, and supports the future use of the property while minimizing unnecessary disturbance and cost.

# Tables

# TABLE 1
# SOIL SAMPLE ANALYTICAL RESULTS

| Analyte | Sample Identification, Sample Depth and Sample Collection Date | | | | | | | | | | | | | | | NYSDEC Part 375 Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RI-BH-1 | RI-BH-1 | RI-BH-2 | RI-BH-2 | RI-BH-3 | RI-BH-4 | RI-BH-5 | RI-BH-6 | RI-BH-6 | RI-BH-7 | RI-BH-7 | RI-BH-8 | RI-BH-8 | RI-BH-9 | RI-BH-9 | Unrestricted | Residential | Restricted Residential | Commercial | Industrial |
| | 0-3' | 6-9' | 1-4' | 5-8' | 1-4' | 1-4' | 2-4' | 0-3' | 6-9' | 0-3' | 6-10' | 0-3' | 4-6' | 1-3' | 6-10' | | | | | |
| | 6/3/2025 | | | | 5/30/2025 | | 8/11/2025 | 5/30/2025 | | | | 6/3/2025 | | 5/30/2025 | | | | | | |
| **METALS (ppm)** | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 3300 | 7440 | 5150 | 20400 | 3100 | 19700 | 4070 | 4800 | 18200 | 6660 | 17600 | 2670 | 11900 | 17000 | 9660 | NS | NS | NS | NS | NS |
| Antimony | 1.2 | 1.3 | 4.1 | 1.2 | 0.79 | 1.5 | ND | 2.0 | 0.86 | 39.4 | 1.5 | 2.3 | 0.78 | 3.3 | 2.1 | NS | NS | NS | NS | NS |
| **Arsenic** | 9.5 | 9.2 | **16.2** | 6.9 | 6.0 | **15.5** | 2.0 | 8.9 | 7.0 | **93.8** | 7.7 | 9.2 | 6.0 | **16.5** | **17.7** | **13** | **16** | **16** | **16** | **16** |
| **Barium** | 25.9 | 95.7 | 109 | 117 | 17.4 | 216 | 15.2 | 162 | 178 | 121 | 145 | 45.5 | 105 | 97.5 | 270 | **350** | **350** | **400** | **400** | 10000 |
| Beryllium | 0.62 | 0.50 | 0.87 | 1.0 | 0.18 | 0.85 | 0.38 | 0.37 | 0.85 | 0.85 | 0.94 | 0.21 | 0.59 | 0.69 | 0.80 | 7.2 | 14 | 72 | 590 | 2700 |
| Cadmium | 0.22 | 0.33 | 0.24 | 0.23 | 0.14 | 0.63 | 0.12 | 0.58 | 0.55 | 1.0 | 0.40 | 0.37 | 0.27 | 0.28 | 0.35 | 2.5 | 2.5 | 4.3 | 9.3 | 60 |
| Calcium | 1520 | 6300 | 5200 | 16700 | 5750 | 3330 | 1460 | 7160 | 1330 | 2370 | 5400 | 3080 | 11800 | 57700 | 15300 | NS | NS | NS | NS | NS |
| Chromium | **8.2** | **10.6** | **9.2** | **28.5** | 4.3 | **24.5** | **3.9** | 15.7 | **22.3** | **19.5** | **23.4** | **16.2** | **15.6** | **30.5** | **16.9** | 1 | 22 | 110 | 400 | 800 |
| Cobalt | 3.3 | 6.8 | 8.0 | 13.7 | 4.4 | 13.6 | 4.0 | 4.7 | 13.4 | 23.2 | 19.8 | 6.0 | 8.7 | 5.4 | 7.8 | NS | NS | NS | NS | NS |
| **Copper** | 13.0 | **50.0** | **302** | 25.0 | 12.1 | 22.0 | 26.4 | 26.1 | 14.1 | **1050** | 27.5 | **265** | 25.2 | 23.8 | **95.9** | **50** | 270 | 270 | 270 | 10000 |
| Iron | 14500 | 19800 | 31300 | 29800 | 8400 | 35700 | 5930 | 37400 | 26800 | 107000 | 32600 | 53400 | 20300 | 120000 | 24900 | NS | NS | NS | NS | NS |
| **Lead** | 40.3 | **105** | **123** | 14.3 | 17.6 | **108** | 4.4 | **157** | 18.8 | **658** | 29.0 | 58.9 | 60.3 | 31.6 | **711** | **63** | **400** | **400** | **1000** | **3900** |
| Magnesium | 291 | 2300 | 771 | 8470 | 2110 | 3760 | 520 | 1540 | 3630 | 1020 | 4570 | 312 | 3120 | 1110 | 2240 | NS | NS | NS | NS | NS |
| **Manganese** | 180 | 249 | 188 | 373 | 157 | 716 | 202 | 282 | 271 | 475 | 414 | 643 | 244 | **4130** | 307 | **1600** | 2000 | 2000 | 10000 | 10000 |
| **Nickel** | 7.7 | 17.0 | 17.5 | **37.9** | 8.6 | 24.6 | 3.3 | 14.7 | 23.9 | 35.1 | 33.9 | 15.5 | 20.5 | 13.8 | 16.4 | **30** | 140 | 310 | 310 | 10000 |
| Potassium | 617 | 1440 | 656 | 4440 | 771 | 3010 | 514 | 821 | 2790 | 860 | 3100 | 337 | 2360 | 1880 | 2040 | NS | NS | NS | NS | NS |
| **Selenium** | ND | ND | 0.99 | ND | ND | ND | ND | ND | 1.3 | 1.9 | 1.2 | ND | ND | 1.8 | 1.8 | 3.9 | 36 | 180 | 1500 | 6800 |
| Silver | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.33 | ND | ND | ND | 0.70 | 0.32 | 2 | 36 | 180 | 1500 | 6800 |
| Sodium | ND | 110 | 209 | 166 | 76.7 | 97.5 | 91.7 | 130 | ND | 119 | 94.7 | ND | 86.1 | 435 | 321 | NS | NS | NS | NS | NS |
| Thallium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Vanadium | 11.9 | 15.3 | 18.7 | 33.9 | 7.5 | 36.5 | 7.9 | 14.9 | 33.4 | 28.8 | 32.6 | 22.5 | 23.1 | 55.5 | 19.1 | NS | NS | NS | NS | NS |
| **Zinc** | 34.2 | **109** | 48.8 | 68.5 | 45.9 | **120** | 19.4 | **126** | 95.6 | **258** | 81.2 | 71.2 | 71.3 | 33.0 | **218** | **109** | 2200 | 10000 | 10000 | 10000 |
| Cyanide, Total | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.58 | ND | ND | ND | 27 | 27 | 27 | 27 | 10000 |
| **Mercury** | 0.028 | **0.77** | **0.36** | 0.014 | **0.37** | **1.4** | ND | 0.020 | 0.049 | **0.24** | 0.099 | 0.095 | **0.31** | 0.16 | **0.24** | **0.18** | **0.81** | **0.81** | 2.8 | 5.7 |
| **ORGANOCHLORINE PESTICIDES (ppm)** | | | | | | | | | | | | | | | | | | | | |
| **4,4'-DDD** | ND | 0.0013 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0033 | 2.6 | 13 | 92 | 180 |
| **4,4'-DDE** | ND | ND | ND | ND | ND | 0.006 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0033 | 1.8 | 8.9 | 62 | 120 |
| **4,4'-DDT** | 0.0016 | ND | ND | 0.0012 | 0.0017 | **0.0058** | ND | 0.0018 | 0.0019 | 0.0075 | 0.0018 | **0.0071** | 0.002 | 0.0016 | ND | 0.0033 | 1.7 | 7.9 | 47 | 94 |
| alpha-BHC | ND | ND | ND | ND | ND | 0.0012 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 0.097 | 0.48 | 3.4 | 6.8 |
| beta-BHC | ND | ND | ND | ND | ND | 0.00092 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.036 | 0.072 | 0.36 | 3 | 14 |
| delta-BHC | ND | ND | ND | ND | ND | 0.0013 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 100 | 100 | 500 | 1000 |
| Endosulfan II | ND | ND | ND | ND | ND | 0.0058 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.4 | 4.8 | 24 | 200 | 920 |
| **Endrin** | 0.00094 | 0.0023 | ND | ND | 0.0014 | 0.004 | ND | ND | ND | 0.0059 | ND | ND | 0.0013 | 0.0012 | ND | 0.014 | 2.2 | 11 | 89 | 410 |
| Endrin aldehyde | ND | ND | ND | ND | ND | 0.0017 | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Endrin ketone | ND | ND | ND | ND | ND | 0.013 | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Methoxychlor | ND | 0.001 | 0.01 | ND | 0.00087 | 0.0098 | ND | 0.00098 | ND | ND | 0.0012 | ND | 0.0011 | ND | ND | NS | NS | NS | NS | NS |
| **PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) (ppt)** | | | | | | | | | | | | | | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | ND | ND | ND | ND | ND | ND | 0.060 | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Perfluorononanoic acid (PFNA) | 0.079 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Perfluorooctanesulfonic acid (PFOS) | **1.0** | ND | ND | ND | ND | ND | ND | **0.76** | ND | ND | ND | **0.75** | ND | 0.16 | ND | 0.88 | 8.8 | 44 | 440 | 440 |
| Perfluorooctanoic acid (PFOA) | 0.13 | ND | ND | ND | ND | ND | ND | 0.15 | ND | ND | ND | **0.22** | ND | ND | ND | 0.66 | 6.6 | 33 | 500 | 600 |
| **POLYCHLORINATED BIPHENYLS (PCBS) (ppm)** | | | | | | | | | | | | | | | | | | | | |
| Total PCBs | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.1 | 1 | 1 | 1 | 25 |
| **SEMIVOLITALE ORGANIC COMPOUNDS (SVOCS) (ppm)** | | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.13 | 0.14 | 0.48 | ND | 0.051 | ND | ND | 0.048 | ND | 0.38 | ND | 0.53 | 0.13 | 0.089 | ND | NS | NS | NS | NS | NS |
| Acenaphthene | ND | 0.064 | 0.47 | ND | ND | 0.071 | ND | ND | ND | 0.3 | ND | ND | ND | ND | ND | 20 | 100 | 100 | 500 | 1000 |
| Acenaphthylene | ND | ND | ND | ND | ND | 0.062 | ND | ND | ND | 0.039 | ND | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Anthracene | ND | 0.22 | 0.6 | ND | 0.051 | 0.22 | ND | ND | ND | 0.72 | ND | 0.39 | 0.067 | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[a]anthracene** | ND | 0.51 | **2.8** | ND | 0.16 | 0.52 | ND | 0.083 | ND | **1.7** | ND | 0.75 | 0.19 | ND | ND | 1 | 1 | 1 | 5.6 | 11 |
| **Benzo[a]pyrene** | ND | 0.52 | **3.9** | ND | 0.11 | 0.44 | ND | 0.065 | ND | **1.5** | ND | ND | 0.18 | ND | ND | 1 | 1 | 1 | 1 | 1.1 |
| **Benzo[b]fluoranthene** | 0.051 | 0.66 | **5.3** | ND | 0.13 | 0.52 | ND | 0.093 | ND | **1.9** | ND | 0.89 | 0.22 | ND | 0.032 | 1 | 1 | 1 | 5.6 | 11 |
| Benzo[g,h,i]perylene | 0.038 | 0.36 | 4.3 | ND | 0.068 | 0.19 | ND | 0.057 | ND | 1.1 | ND | 0.59 | 0.13 | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[k]fluoranthene** | ND | 0.27 | **2.4** | ND | 0.055 | 0.3 | ND | 0.078 | ND | 0.92 | ND | 0.65 | 0.083 | ND | ND | 0.8 | 1 | 3.9 | 56 | 110 |
| Bis(2-ethylhexyl) phthalate | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.098 | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Carbazole | ND | 0.11 | 0.43 | ND | ND | 0.048 | ND | ND | ND | 0.35 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **Chrysene** | ND | 0.55 | **3.7** | ND | 0.15 | 0.52 | ND | 0.088 | ND | **1.9** | ND | 0.6 | 0.25 | ND | ND | 1 | 1 | 3.9 | 56 | 110 |
| **Dibenz(a,h)anthracene** | ND | 0.11 | **1.2** | ND | ND | 0.085 | ND | ND | ND | 0.32 | ND | ND | 0.045 | ND | ND | 0.33 | 0.33 | 0.33 | 0.56 | 1.1 |
| Dibenzofuran | ND | 0.07 | ND | ND | ND | 0.044 | ND | ND | ND | 0.25 | ND | ND | 0.047 | ND | ND | 7 | 14 | 59 | 350 | 1000 |
| Fluoranthene | 0.081 | 1.1 | 4.3 | ND | 0.26 | 0.96 | ND | 0.14 | ND | 4.4 | 0.051 | 1.5 | 0.36 | 0.039 | 0.065 | 100 | 100 | 100 | 500 | 1000 |
| Fluorene | ND | 0.063 | 0.26 | ND | ND | 0.069 | ND | ND | ND | 0.28 | ND | ND | ND | ND | ND | 30 | 100 | 100 | 500 | 1000 |
| **Indeno[1,2,3-cd]pyrene** | ND | 0.3 | **3.2** | ND | 0.058 | 0.2 | ND | 0.057 | ND | **0.97** | ND | **0.54** | 0.093 | ND | ND | 0.5 | 0.5 | 0.5 | 5.6 | 11 |
| Naphthalene | 0.066 | ND | 0.75 | ND | ND | ND | ND | 0.034 | ND | 0.25 | ND | ND | 0.09 | ND | ND | 12 | 100 | 100 | 500 | 1000 |
| Phenanthrene | 0.12 | 0.88 | 2.9 | ND | 0.29 | 0.78 | ND | 0.11 | ND | 3.4 | 0.048 | 1.4 | 0.33 | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Pyrene | 0.081 | 0.9 | 3.8 | ND | 0.25 | 0.9 | ND | 0.14 | ND | 3.5 | 0.052 | 1.5 | 0.32 | 0.034 | 0.062 | 100 | 100 | 100 | 500 | 1000 |
| Total TICs | 38.03 | 7.78 | 38.42 | 45.95 | 39.14 | 21 | 13.3 | 44.79 | 25.2 | 42.9 | 41.2 | 8.6 | 19.12 | 43.94 | 45.04 | NS | NS | NS | NS | NS |
| **VOLITALE ORGANIC COMPOUNDS (VOCS)** | | | | | | | | | | | | | | | | | | | | |
| 2-Butanone (MEK) | ND | ND | ND | ND | ND | ND | ND | ND | 0.0085 | ND | 0.012 | ND | 0.0045 | 0.0056 | 0.014 | 0.12 | 100 | 100 | 500 | 1000 |
| **Acetone** | 0.0055 | ND | 0.0066 | ND | 0.0081 | 0.0079 | 0.0066 | ND | 0.049 | 0.012 | **0.059** | 0.011 | 0.029 | ND | **0.068** | 0.05 | 100 | 100 | 500 | 1000 |
| Benzene | ND | ND | 0.00043 | ND | ND | ND | ND | 0.0009 | ND | ND | ND | ND | ND | 0.00055 | ND | 0.06 | 2.9 | 4.8 | 44 | 89 |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | 0.00044 | ND | ND | ND | ND | ND | ND | 0.00047 | 0.37 | 10 | 49 | 350 | 700 |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | 0.0012 | ND | ND | ND | ND | ND | ND | ND | 1 | 30 | 41 | 390 | 780 |
| Methylcyclohexane | ND | ND | ND | ND | ND | 0.0014 | ND | ND | ND | ND | 0.0015 | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **Methylene Chloride** | ND | **0.43** | ND | ND | 0.025 | 0.049 | ND | 0.038 | ND | 0.013 | 0.0044 | ND | ND | 0.0054 | 0.011 | 0.05 | 51 | 100 | 500 | 1000 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 | 5.5 | 19 | 150 | 300 |
| Toluene | 0.00061 | ND | 0.00049 | ND | 0.00054 | ND | ND | 0.0021 | ND | ND | ND | ND | ND | 0.00055 | ND | 0.7 | 100 | 100 | 500 | 1000 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | 0.024 | 0.034 | ND | 0.026 | ND | 0.0073 | 0.0007 | ND | ND | ND | 0.0026 | 0.19 | 100 | 100 | 500 | 1000 |
| Xylenes, Total | ND | ND | ND | ND | ND | ND | ND | 0.00098 | ND | ND | ND | ND | ND | ND | ND | 0.26 | 100 | 100 | 500 | 1000 |
| Total TICs | 0 | 154.10 | 0.00 | 0.00 | 0.00 | 0.00 | ND | 0.12 | 0.00 | 0.00 | 0.01 | 0.05 | 0.00 | 0.60 | 0.00 | NS | NS | NS | NS | NS |

**TABLE 1**
**SOIL SAMPLE ANALYTICAL RESULTS**

| Analyte | Sample Identification, Sample Depth and Sample Collection Date | | | | | | | | | | | | | NYSDEC Part 375 Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RI-BH-10 | RI-BH-10 | RI-BH-11 | RI-BH-11 | RI-BH-12 | RI-BH-12 | RI-BH-13 | RI-BH-13 | RI-BH-14 | RI-BH-14 | RI-BH-15 | RI-BH-15 | RI-BH-16 | Unrestricted | Residential | Restricted Residential | Commercial | Industrial |
| | 0-3' | 5-9' | 0-3' | 4-7' | 0-3' | 5-7' | 0-3' | 5-8' | 1-3' | 4-7' | 0-3.5' | 4-7' | 1-3' | | | | | |
| | 5/30/2025 | | | | | | | | | | | | 8/11/2025 | | | | | |
| **METALS (ppm)** | | | | | | | | | | | | | | | | | | |
| Aluminum | 12000 | 15500 | 7240 | 11800 | 8120 | 12500 | 9850 | 11000 | 11100 | 19900 | 7780 | 11900 | 20100 | NS | NS | NS | NS | NS |
| Antimony | 1.0 | 0.93 | 1.4 | 1.1 | 2.2 | 1.0 | 1.7 | 1.6 | 1.1 | 1.9 | 1.9 | 1.4 | ND | NS | NS | NS | NS | NS |
| **Arsenic** | 10.3 | 6.2 | 7.6 | 10.2 | **19.1** | 5.4 | 7.2 | 12.7 | 7.5 | 10 | **13.7** | 12.7 | 8.7 | **13** | **16** | **16** | **16** | **16** |
| **Barium** | 74.3 | 170 | 76.2 | 70.3 | **367** | 108 | 90.1 | 66.0 | 71.6 | 157 | **366** | 92.2 | 108 | **350** | **350** | **400** | **400** | 10000 |
| Beryllium | 0.56 | 0.71 | 0.98 | 0.60 | 0.65 | 0.78 | 0.52 | 0.68 | 0.49 | 0.98 | 0.70 | 0.60 | 0.65 | 7.2 | 14 | 72 | 590 | 2700 |
| Cadmium | 0.18 | 0.71 | 0.31 | 0.44 | 0.31 | 0.15 | 0.23 | 0.31 | 0.25 | 0.25 | 2.2 | 0.45 | 0.3 | 2.5 | 2.5 | 4.3 | 9.3 | 60 |
| Calcium | 2280 | 122000 | 4510 | 42000 | 7840 | 1940 | 14200 | 12200 | 2570 | 24400 | 16000 | 37300 | 2890 | NS | NS | NS | NS | NS |
| Chromium | **14.2** | **21.1** | **9.7** | **17.0** | **14.9** | **16.9** | **12.9** | **15.6** | **12.2** | **27.3** | **133** | **17.8** | **22.4** | 1 | 22 | 110 | 400 | 800 |
| Cobalt | 7.9 | 9.7 | 7.6 | 10.4 | 8.0 | 10.4 | 7.8 | 11.1 | 10.6 | 16.4 | 8.2 | 11.0 | 9.9 | NS | NS | NS | NS | NS |
| **Copper** | 27.7 | 20.2 | **73.0** | 32.9 | **57.7** | 27.1 | **57.3** | 47.0 | **71.2** | 24.9 | **119** | 37.1 | 9.1 | **50** | 270 | 270 | 270 | 10000 |
| Iron | 20700 | 20600 | 23700 | 25200 | 31500 | 22000 | 19800 | 28000 | 22100 | 35000 | 24300 | 25500 | 33300 | NS | NS | NS | NS | NS |
| **Lead** | 28.9 | 14.9 | **73.1** | 17.0 | **674** | 20.9 | **110** | 30.3 | **86.8** | 15.8 | **707** | 18.9 | 24.9 | **63** | **400** | **400** | **1000** | **3900** |
| Magnesium | 2310 | 7960 | 975 | 7550 | 1210 | 3530 | 3170 | 5230 | 2860 | 7370 | 2230 | 7590 | 3130 | NS | NS | NS | NS | NS |
| **Manganese** | 195 | 254 | 231 | 305 | 446 | 200 | 297 | 234 | 430 | 356 | 303 | 311 | 1110 | **1600** | 2000 | 2000 | 10000 | 10000 |
| **Nickel** | 19.0 | 27.4 | 14.3 | **30.0** | 16.4 | 26.9 | 17.4 | **31.6** | 21.1 | **43.3** | **95.4** | **30.2** | 15.5 | **30** | 140 | 310 | 310 | 10000 |
| Potassium | 1790 | 3960 | 827 | 2410 | 1230 | 3020 | 1800 | 2590 | 1530 | 3530 | 1120 | 2410 | 2820 | NS | NS | NS | NS | NS |
| **Selenium** | 1.7 | 1.7 | 1.6 | 1.2 | 1.1 | 1.3 | 1.0 | 1.3 | ND | ND | 1.5 | ND | 2.6 | 3.9 | 36 | 180 | 1500 | 6800 |
| Silver | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.28 | ND | 0.29 | 2 | 36 | 180 | 1500 | 6800 |
| Sodium | 76.0 | 150 | 96.2 | 152 | 230 | 90.9 | 101 | 88.2 | 300 | 178 | 153 | 153 | 127 | NS | NS | NS | NS | NS |
| Thallium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Vanadium | 21.9 | 27.8 | 16.4 | 23.2 | 26.8 | 21.5 | 22.2 | 21.9 | 18.0 | 33.6 | 23.9 | 24.7 | 42.1 | NS | NS | NS | NS | NS |
| **Zinc** | 65.7 | 56.9 | 98.3 | 77.1 | **249** | 67.7 | 105 | 88.3 | **140** | 65.7 | **542** | 80.0 | 63.3 | **109** | 2200 | 10000 | 10000 | 10000 |
| Cyanide, Total | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 27 | 27 | 27 | 27 | 10000 |
| **Mercury** | **0.40** | 0.019 | **0.20** | 0.017 | **0.43** | 0.021 | **0.69** | 0.018 | **0.55** | 0.018 | **0.43** | 0.017 | 0.053 | **0.18** | **0.81** | **0.81** | 2.8 | 5.7 |
| **ORGANOCHLORINE PESTICIDES (ppm)** | | | | | | | | | | | | | | | | | | |
| **4,4'-DDD** | 0.0015 | ND | ND | ND | ND | ND | ND | ND | 0.00081 | ND | ND | ND | ND | 0.0033 | 2.6 | 13 | 92 | 180 |
| **4,4'-DDE** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0029 | 0.0033 | 1.8 | 8.9 | 62 | 120 |
| **4,4'-DDT** | 0.0017 | 0.0031 | 0.0031 | ND | 0.0031 | ND | 0.0032 | ND | ND | ND | **0.034** | ND | 0.0023 | 0.0033 | 1.7 | 7.9 | 47 | 94 |
| delta-BHC | 0.00099 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 100 | 100 | 500 | 1000 |
| Endosulfan II | ND | ND | ND | ND | ND | ND | 0.00086 | ND | ND | ND | ND | ND | ND | 2.4 | 4.8 | 24 | 200 | 920 |
| Endosulfan sulfate | ND | ND | ND | ND | ND | ND | ND | ND | 0.0014 | 0.0012 | ND | ND | ND | 2.4 | 4.8 | 24 | 200 | 920 |
| **Endrin** | 0.0016 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0011 | 0.014 | 2.2 | 11 | 89 | 410 |
| Endrin ketone | ND | ND | ND | ND | ND | ND | 0.0027 | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Methoxychlor | ND | ND | 0.0032 | ND | ND | ND | 0.0061 | 0.0039 | ND | ND | ND | ND | 0.0016 | NS | NS | NS | NS | NS |
| **PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) (ppt)** | | | | | | | | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ND | ND | ND | ND | ND | ND | 0.30 | 0.32 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Perfluorooctanesulfonic acid (PFOS) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.88 | 8.8 | 44 | 440 | 440 |
| Perfluorooctanoic acid (PFOA) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.66 | 6.6 | 33 | 500 | 600 |
| **POLYCHLORINATED BIPHENYLS (PCBS) (ppm)** | | | | | | | | | | | | | | | | | | |
| Total PCBs | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.1 | 1 | 1 | 1 | 25 |
| **SEMIVOLITALE ORGANIC COMPOUNDS (SVOCS) (ppm)** | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.038 | ND | 0.19 | ND | ND | ND | 0.33 | ND | ND | ND | 0.52 | ND | ND | NS | NS | NS | NS | NS |
| Acenaphthene | ND | ND | ND | ND | 0.099 | ND | ND | ND | ND | ND | ND | ND | ND | 20 | 100 | 100 | 500 | 1000 |
| Anthracene | 0.048 | ND | 0.084 | ND | 0.22 | ND | 0.038 | ND | ND | ND | 0.96 | ND | 0.054 | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[a]anthracene** | 0.27 | ND | 0.26 | ND | 0.44 | ND | 0.16 | ND | ND | ND | **2.1** | ND | 0.12 | 1 | 1 | 1 | 5.6 | 11 |
| **Benzo[a]pyrene** | 0.18 | ND | 0.21 | ND | 0.35 | ND | 0.12 | ND | ND | ND | **1.9** | ND | 0.11 | 1 | 1 | 1 | 1 | 1.1 |
| **Benzo[b]fluoranthene** | 0.18 | ND | 0.35 | ND | 0.47 | ND | 0.22 | ND | 0.034 | ND | **2.4** | ND | 0.13 | 1 | 1 | 1 | 5.6 | 11 |
| Benzo[g,h,i]perylene | 0.11 | ND | 0.17 | ND | 0.2 | ND | 0.085 | ND | ND | ND | 1.3 | ND | 0.063 | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[k]fluoranthene** | 0.15 | ND | 0.14 | ND | 0.19 | ND | 0.068 | ND | ND | ND | **1.4** | ND | 0.084 | 0.8 | 1 | 3.9 | 56 | 110 |
| Biphenyl | ND | ND | ND | ND | ND | ND | 0.039 | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Carbazole | ND | ND | ND | ND | 0.054 | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **Chrysene** | 0.21 | ND | 0.34 | ND | 0.46 | ND | 0.21 | ND | ND | ND | **1.9** | ND | 0.14 | 1 | 1 | 3.9 | 56 | 110 |
| **Dibenz(a,h)anthracene** | ND | ND | 0.048 | ND | 0.056 | ND | ND | ND | ND | ND | **0.48** | ND | ND | 0.33 | 0.33 | 0.33 | 0.56 | 1.1 |
| Dibenzofuran | ND | ND | 0.091 | ND | 0.051 | ND | 0.1 | ND | ND | ND | ND | ND | ND | 7 | 14 | 59 | 350 | 1000 |
| Fluoranthene | 0.28 | ND | 0.64 | ND | 1 | ND | 0.28 | ND | 0.041 | ND | 5.7 | ND | 0.26 | 100 | 100 | 100 | 500 | 1000 |
| Fluorene | ND | ND | ND | ND | 0.082 | ND | ND | ND | ND | ND | ND | ND | ND | 30 | 100 | 100 | 500 | 1000 |
| **Indeno[1,2,3-cd]pyrene** | 0.12 | ND | 0.12 | ND | 0.15 | ND | 0.068 | ND | ND | ND | **1.2** | ND | 0.047 | 0.5 | 0.5 | 0.5 | 5.6 | 11 |
| Naphthalene | ND | ND | 0.13 | ND | 0.033 | ND | 0.21 | ND | ND | ND | 0.38 | ND | ND | 12 | 100 | 100 | 500 | 1000 |
| Phenanthrene | ND | ND | 0.59 | ND | 0.85 | ND | 0.39 | ND | ND | ND | 4.5 | ND | 0.25 | 100 | 100 | 100 | 500 | 1000 |
| Pyrene | 0.24 | ND | 0.55 | ND | 0.84 | ND | 0.26 | ND | 0.043 | ND | 4.1 | ND | 0.25 | 100 | 100 | 100 | 500 | 1000 |
| Total TICs | 25.66 | 28.61 | 16.79 | 27.8 | 16.69 | 58.08 | 28.49 | 31.99 | 46.01 | 16.73 | 0 | 16.3 | 109.6 | NS | NS | NS | NS | NS |
| **VOLITALE ORGANIC COMPOUNDS (VOCS)** | | | | | | | | | | | | | | | | | | |
| 2-Butanone (MEK) | ND | ND | 0.0097 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.12 | 100 | 100 | 500 | 1000 |
| **Acetone** | ND | 0.0053 | **0.085** | ND | ND | 0.0089 | ND | 0.0098 | 0.026 | ND | ND | ND | ND | 0.05 | 100 | 100 | 500 | 1000 |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | 0.00035 | 0.00038 | ND | 0.00043 | ND | ND | 0.37 | 10 | 49 | 350 | 700 |
| Methylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0014 | ND | ND | ND | NS | NS | NS | NS | NS |
| **Methylene Chloride** | 0.023 | 0.031 | 0.007 | 0.019 | ND | ND | 0.0062 | 0.032 | 0.023 | 0.01 | 0.022 | 0.072 | ND | 0.05 | 51 | 100 | 500 | 1000 |
| trans-1,2-Dichloroethene | 0.016 | 0.021 | 0.0021 | 0.011 | 0.0011 | 0.0011 | 0.0033 | 0.018 | 0.0097 | 0.0078 | 0.013 | 0.05 | ND | 0.19 | 100 | 100 | 500 | 1000 |
| Total TICs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | NS | NS | NS | NS | NS |

**TABLE 1**
**SOIL SAMPLE ANALYTICAL RESULTS**

| Analyte | Sample Identification, Sample Depth and Sample Collection Date | | | | | | | NYSDEC Part 375 Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RI-MW-1 | RI-MW-2 | RI-MW-2 DUP | RI-MW-3 | RI-MW-3 DUP | RI-MW-4 | RI-MW-5 | Unrestricted | Residential | Restricted Residential | Commercial | Industrial |
| | 8-11' | 9-12' | 9-12' | 4-8' | 4-8' | 4-8' | 4-8' | | | | | |
| | 5/30/2025 | | | | | | | | | | | |
| **METALS (ppm)** | | | | | | | | | | | | |
| Aluminum | 11400 | 13500 | 14800 | 15500 | 20800 | 10400 | 10400 | NS | NS | NS | NS | NS |
| Antimony | 1.3 | 1.4 | 0.81 | 1.1 | 1.4 | ND | 1.3 | NS | NS | NS | NS | NS |
| **Arsenic** | 7.4 | 10.6 | 8.2 | 8.3 | 4.3 | 8.9 | **13.4** | **13** | **16** | **16** | **16** | **16** |
| **Barium** | 127 | 192 | 191 | **669** | 303 | 97.8 | 73.5 | **350** | **350** | **400** | **400** | 10000 |
| Beryllium | 0.73 | 0.80 | 0.71 | 0.75 | 1.0 | 0.51 | 0.55 | 7.2 | 14 | 72 | 590 | 2700 |
| Cadmium | 0.14 | 0.33 | 0.38 | 0.30 | 0.32 | 0.38 | 0.41 | 2.5 | 2.5 | 4.3 | 9.3 | 60 |
| Calcium | 1250 | 5470 | 12400 | 36300 | 2230 | 29400 | 17200 | NS | NS | NS | NS | NS |
| Chromium | 16.6 | 23.0 | 20.1 | 21.7 | 28.5 | 15.4 | 15.3 | NS | NS | NS | NS | NS |
| Cobalt | 11.8 | 12.8 | 12.4 | 12.8 | 16.7 | 11.2 | 12.5 | NS | NS | NS | NS | NS |
| **Copper** | 41.0 | **81.4** | 34.7 | 32.4 | 22.1 | 35.8 | 43.3 | **50** | 270 | 270 | 270 | 10000 |
| Iron | 19800 | 26800 | 25100 | 26500 | 29500 | 23200 | 28100 | NS | NS | NS | NS | NS |
| **Lead** | 26.2 | **70.8** | 50.1 | 15.5 | 13.3 | 15.6 | 25.4 | **63** | **400** | **400** | **1000** | **3900** |
| Magnesium | 3960 | 3590 | 5240 | 8880 | 6110 | 8000 | 6420 | NS | NS | NS | NS | NS |
| **Manganese** | 132 | 520 | 286 | 405 | 280 | 286 | 309 | **1600** | 2000 | 2000 | 10000 | 10000 |
| **Nickel** | **33.4** | 28.8 | **30.4** | **34.0** | **45.5** | 29.8 | **36.5** | **30** | 140 | 310 | 310 | 10000 |
| Potassium | 2510 | 2610 | 2890 | 3020 | 3020 | 2120 | 2080 | NS | NS | NS | NS | NS |
| **Selenium** | 2.8 | ND | ND | ND | 1.5 | ND | 1.2 | 3.9 | 36 | 180 | 1500 | 6800 |
| Silver | ND | ND | ND | ND | ND | ND | ND | 2 | 36 | 180 | 1500 | 6800 |
| Sodium | 72.5 | 90.1 | 113 | 175 | 121 | 124 | 91.5 | NS | NS | NS | NS | NS |
| Thallium | ND | ND | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Vanadium | 18.5 | 28.0 | 26.7 | 29.0 | 33.9 | 20.4 | 19.6 | NS | NS | NS | NS | NS |
| **Zinc** | 75.5 | **124** | **127** | 68.2 | 73.0 | 86.1 | **115** | **109** | 2200 | 10000 | 10000 | 10000 |
| Cyanide, Total | ND | ND | ND | ND | ND | ND | ND | 27 | 27 | 27 | 27 | 10000 |
| **Mercury** | 0.015 | **1.6** | **0.49** | 0.012 | 0.028 | 0.023 | 0.018 | **0.18** | **0.81** | **0.81** | 2.8 | 5.7 |
| **ORGANOCHLORINE PESTICIDES (ppm)** | | | | | | | | | | | | |
| **4,4'-DDT** | ND | 0.002 | 0.0019 | ND | ND | ND | ND | 0.0033 | 1.7 | 7.9 | 47 | 94 |
| delta-BHC | ND | ND | 0.0011 | ND | ND | ND | ND | 0.04 | 100 | 100 | 500 | 1000 |
| Endosulfan sulfate | ND | ND | ND | ND | 0.0012 | ND | ND | 2.4 | 4.8 | 24 | 200 | 920 |
| **Endrin** | ND | 0.0017 | 0.0014 | ND | ND | ND | ND | 0.014 | 2.2 | 11 | 89 | 410 |
| Methoxychlor | ND | ND | 0.0013 | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) (ppt)** | | | | | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | ND | ND | ND | ND | ND | ND | 0.88 | 8.8 | 44 | 440 | 440 |
| Perfluorooctanoic acid (PFOA) | ND | ND | ND | ND | ND | ND | ND | 0.66 | 6.6 | 33 | 500 | 600 |
| **POLYCHLORINATED BIPHENYLS (PCBS) (ppm)** | | | | | | | | | | | | |
| Total PCBs | ND | ND | ND | ND | ND | ND | ND | 0.1 | 1 | 1 | 1 | 25 |
| **SEMIVOLITALE ORGANIC COMPOUNDS (SVOCS) (ppm)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.57 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **4-Methylphenol** | ND | 0.046 | ND | ND | ND | ND | ND | 0.33 | 34 | 100 | 500 | 1000 |
| Acenaphthene | ND | 0.53 | ND | ND | ND | ND | ND | 20 | 100 | 100 | 500 | 1000 |
| Acenaphthylene | ND | 0.34 | ND | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Anthracene | ND | 1.5 | ND | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[a]anthracene** | ND | **1.9** | ND | ND | ND | ND | ND | 1 | 1 | 1 | 5.6 | 11 |
| **Benzo[a]pyrene** | ND | **1.4** | ND | ND | ND | ND | ND | 1 | 1 | 1 | 1 | 1.1 |
| **Benzo[b]fluoranthene** | ND | **1.7** | 0.037 | ND | ND | ND | ND | 1 | 1 | 1 | 5.6 | 11 |
| Benzo[g,h,i]perylene | ND | 0.77 | ND | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| **Benzo[k]fluoranthene** | ND | **0.87** | ND | ND | ND | ND | ND | 0.8 | 1 | 3.9 | 56 | 110 |
| Biphenyl | ND | 0.1 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Carbazole | ND | 0.35 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **Chrysene** | ND | **2** | ND | ND | ND | ND | ND | 1 | 1 | 3.9 | 56 | 110 |
| **Dibenz(a,h)anthracene** | ND | 0.29 | ND | ND | ND | ND | ND | 0.33 | 0.33 | 0.33 | 0.56 | 1.1 |
| Dibenzofuran | ND | 0.57 | ND | ND | ND | ND | ND | 7 | 14 | 59 | 350 | 1000 |
| Fluoranthene | ND | 4.1 | 0.098 | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Fluorene | ND | 1 | ND | ND | ND | ND | ND | 30 | 100 | 100 | 500 | 1000 |
| **Indeno[1,2,3-cd]pyrene** | ND | **0.62** | ND | ND | ND | ND | ND | 0.5 | 0.5 | 0.5 | 5.6 | 11 |
| Naphthalene | ND | 0.63 | ND | ND | ND | ND | ND | 12 | 100 | 100 | 500 | 1000 |
| Phenanthrene | ND | 4.8 | ND | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Pyrene | ND | 3.3 | 0.096 | ND | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Total TICs | 63.71 | 29.82 | 15.05 | 17.77 | 18.6 | 44.53 | 14.56 | NS | NS | NS | NS | NS |
| **VOLITALE ORGANIC COMPOUNDS (VOCS)** | | | | | | | | | | | | |
| 2-Butanone (MEK) | ND | 0.0047 | ND | 0.0048 | ND | ND | ND | 0.12 | 100 | 100 | 500 | 1000 |
| **Acetone** | 0.018 | 0.02 | 0.0057 | 0.044 | 0.041 | ND | ND | 0.05 | 100 | 100 | 500 | 1000 |
| Benzene | ND | 0.0042 | ND | ND | ND | ND | ND | 0.06 | 2.9 | 4.8 | 44 | 89 |
| Chloroform | ND | 0.00046 | ND | ND | ND | 0.00037 | ND | 0.37 | 10 | 49 | 350 | 700 |
| cis-1,2-Dichloroethene | 0.0019 | ND | ND | ND | ND | ND | ND | 0.25 | 59 | 100 | 500 | 1000 |
| Cyclohexane | ND | 0.19 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Ethylbenzene | ND | 0.02 | ND | ND | ND | ND | ND | 1 | 30 | 41 | 390 | 780 |
| Isopropylbenzene | ND | 0.012 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| Methylcyclohexane | ND | 0.24 | ND | ND | ND | ND | ND | NS | NS | NS | NS | NS |
| **Methylene Chloride** | **0.068** | 0.0035 | **0.071** | 0.041 | 0.009 | **0.11** | **0.052** | 0.05 | 51 | 100 | 500 | 1000 |
| Toluene | ND | 0.044 | ND | ND | ND | ND | ND | 0.7 | 100 | 100 | 500 | 1000 |
| trans-1,2-Dichloroethene | 0.047 | 0.00078 | 0.037 | 0.032 | 0.0051 | 0.073 | 0.032 | 0.19 | 100 | 100 | 500 | 1000 |
| Xylenes, Total | ND | 0.13 | ND | ND | ND | ND | ND | 0.26 | 100 | 100 | 500 | 1000 |
| Total TICs | 0.00 | 0.17478 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NS | NS | NS | NS | NS |

**TABLE 2**
**SURFACE AND STEP-OUT SOIL SAMPLE ANALYTICAL RESULTS**

| Analyte | Sample Identification, Sample Depth and Sample Collection Date | | | | | | | | NYSDEC Part 375 Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SS-1 | SS-2 | SS-3 | SS-4 | SS-5 | SS-6 | SS-7 | SS-8 | Unrestricted | Residential | Restricted Residential | Commercial | Industrial |
| | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | 0.17-0.5' | | | | | |
| | 8/7/2025 | | | | | | | | | | | | |
| **METALS (ppm)** | | | | | | | | | | | | | |
| Aluminum | 10400 | 9650 | 9290 | 9330 | 11900 | 6170 | 11800 | 12800 | - | - | - | - | - |
| Antimony | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - |
| Arsenic | 12.6 | 12.7 | **15.7** | 9.6 | 10.5 | 6.2 | 8.4 | **13.9** | 13 | 16 | 16 | 16 | 16 |
| Barium | 130 | 135 | 80.8 | 117 | 137 | 39.3 | 127 | 200 | 350 | 350 | 400 | 400 | 10000 |
| Beryllium | 0.61 | 0.55 | 0.55 | 0.6 | 0.6 | 0.3 | 0.67 | 0.64 | 7.2 | 14 | 72 | 590 | 2700 |
| Cadmium | 0.43 | 0.56 | 0.35 | 0.5 | 0.48 | 0.35 | **2.7** | 0.41 | 2.5 | 2.5 | 4.3 | 9.3 | 60 |
| Calcium | 1980 | 21500 | 2280 | 5090 | 3360 | 41000 | 17900 | 4650 | - | - | - | - | - |
| Chromium | **22.5** | **39.8** | **23.5** | **20.1** | **22.7** | **15.1** | **19.2** | **19.8** | 1 | 22 | 110 | 400 | 800 |
| Cobalt | 8.6 | 6.5 | 9.6 | 8.9 | 8.6 | 5.7 | 6.6 | 9.5 | - | - | - | - | - |
| Copper | 35.8 | **50.4** | **52.3** | **53.6** | 36.6 | 18.2 | 36.6 | 43.8 | 50 | 270 | 270 | 270 | 10000 |
| Iron | 22700 | 39000 | 47100 | 28000 | 22800 | 18200 | 30900 | 26700 | - | - | - | - | - |
| Lead | **187** | **209** | **96.4** | **206** | **276** | 21.7 | **208** | **353** | 63 | 400 | 400 | 1000 | 3900 |
| Magnesium | 2200 | 1880 | 1940 | 2160 | 2570 | 8860 | 1670 | 2520 | - | - | - | - | - |
| Manganese | 311 | **1710** | 384 | 423 | 272 | 445 | 1280 | 648 | 1600 | 2000 | 2000 | 10000 | 10000 |
| Nickel | 26.9 | **82.6** | 29.1 | 24.4 | 25.3 | 22.5 | 22.4 | 25.2 | 30 | 140 | 310 | 310 | 10000 |
| Potassium | 1770 | 1290 | 1630 | 1710 | 2300 | 1210 | 1920 | 2280 | - | - | - | - | - |
| Selenium | ND | 1.8 | ND | 1.1 | ND | ND | 1.5 | 0.95 | 3.9 | 36 | 180 | 1500 | 6800 |
| Silver | ND | 0.28 | ND | ND | ND | ND | 0.24 | 0.24 | 2 | 36 | 180 | 1500 | 6800 |
| Sodium | 85.3 | 182 | ND | 87 | 79 | 96.7 | 183 | 110 | - | - | - | - | - |
| Thallium | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - |
| Vanadium | 20.9 | 31.2 | 18.9 | 21.1 | 22.5 | 15.9 | 26.6 | 26.2 | - | - | - | - | - |
| Zinc | **142** | **175** | **119** | **177** | **285** | **118** | **178** | **168** | 109 | 2200 | 10000 | 10000 | 10000 |
| Cyanide, Total | ND | 2.2 | 2.2 | 0.69 | 0.54 | ND | 5.1 | ND | 27 | 27 | 27 | 27 | 10000 |
| Mercury | 0.12 | 0.049 | **0.21** | **0.21** | **0.39** | 0.011 | 0.18 | **0.59** | 0.18 | 0.81 | 0.81 | 2.8 | 5.7 |
| **ORGANOCHLORINE PESTICIDES (ppm)** | | | | | | | | | | | | | |
| 4,4'-DDD | - | ND | - | - | - | ND | ND | 0.0071 | 0.0033 | 2.6 | 13 | 92 | 180 |
| 4,4'-DDE | - | ND | - | - | - | ND | ND | 0.015 | 0.0033 | 1.8 | 8.9 | 62 | 120 |
| 4,4'-DDT | - | ND | - | - | - | 0.014 | 0.016 | 0.015 | 0.0033 | 1.7 | 7.9 | 47 | 94 |
| Aldrin | - | ND | - | - | - | ND | ND | ND | 0.005 | 0.019 | 0.097 | 0.68 | 1.4 |
| alpha-BHC | - | 0.015 | - | - | - | ND | ND | ND | 0.02 | 0.097 | 0.48 | 3.4 | 6.8 |
| Endrin | - | 0.029 | - | - | - | 0.014 | 0.013 | ND | 0.014 | 2.2 | 11 | 89 | 410 |
| **PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) (ppt)** | | | | | | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | - | ND | - | - | - | ND | 0.25 | 0.18 | - | - | - | - | - |
| Perfluorodecanesulfonic acid (PFDS) | - | ND | - | - | - | ND | ND | ND | - | - | - | - | - |
| Perfluorodecanoic acid (PFDA) | - | 0.13 | - | - | - | 0.050 | 0.11 | 0.061 | - | - | - | - | - |
| Perfluorododecanoic acid (PFDoA) | - | 0.12 | - | - | - | ND | ND | ND | - | - | - | - | - |
| Perfluoroheptanoic acid (PFHpA) | - | ND | - | - | - | ND | 0.11 | 0.099 | - | - | - | - | - |
| Perfluorohexanoic acid (PFHxA) | - | ND | - | - | - | ND | ND | 0.10 | - | - | - | - | - |
| Perfluorononanoic acid (PFNA) | - | 0.089 | - | - | - | 0.062 | 0.22 | 0.16 | - | - | - | - | - |
| Perfluorooctanesulfonic acid (PFOS) | - | 0.37 | - | - | - | 0.25 | **0.89** | 0.28 | 0.88 | 8.8 | 44 | 440 | 440 |
| Perfluorooctanoic acid (PFOA) | - | 0.078 | - | - | - | ND | 0.38 | 0.17 | 0.66 | 6.6 | 33 | 500 | 600 |
| Perfluoropentanoic acid (PFPeA) | - | ND | - | - | - | ND | ND | 0.059 | - | - | - | - | - |
| Perfluorotridecanoic acid (PFTrDA) | - | 0.087 | - | - | - | ND | ND | ND | - | - | - | - | - |
| Perfluoroundecanoic acid (PFUnA) | - | 0.22 | - | - | - | ND | 0.11 | 0.052 | - | - | - | - | - |
| **POLYCHLORINATED BIPHENYLS (PCBS) (ppm)** | | | | | | | | | | | | | |
| Total PCBs | ND | - | - | - | ND | ND | ND | - | 0.1 | 1 | 1 | 1 | 25 |
| **SEMIVOLITALE ORGANIC COMPOUNDS (SVOCS) (ppm)** | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.49 | 1.3 | 0.95 | 0.75 | - | ND | 0.59 | ND | NS | NS | NS | NS | NS |
| Acenaphthene | ND | ND | 1 | ND | - | ND | ND | ND | 20 | 100 | 100 | 500 | 1000 |
| Acenaphthylene | 0.96 | 0.18 | 0.14 | 0.19 | - | ND | ND | ND | 100 | 100 | 100 | 500 | 1000 |
| Acetophenone | ND | ND | 0.083 | ND | - | ND | ND | ND | NS | NS | NS | NS | NS |
| Anthracene | 0.74 | 0.16 | 2.1 | ND | - | ND | 0.26 | 0.36 | 100 | 100 | 100 | 500 | 1000 |
| Benzo[a]anthracene | **3.6** | 0.8 | **4.3** | 0.82 | - | 0.073 | 0.71 | 0.56 | 1 | 1 | 1 | 5.6 | 11 |
| Benzo[a]pyrene | **3** | 0.91 | **3.6** | 0.89 | - | 0.11 | 0.84 | 0.65 | 1 | 1 | 1 | 1 | 1.1 |
| Benzo[b]fluoranthene | **4** | **1.4** | **4.5** | **1.3** | - | 0.18 | **1.1** | 0.73 | 1 | 1 | 1 | 5.6 | 11 |
| Benzo[g,h,i]perylene | 2.1 | 0.68 | 2.8 | 0.77 | - | 0.098 | 0.7 | 0.4 | 100 | 100 | 100 | 500 | 1000 |
| Benzo[k]fluoranthene | **2.8** | 0.48 | **2.4** | 0.71 | - | 0.061 | 0.61 | 0.38 | 0.8 | 1 | 3.9 | 56 | 110 |
| Biphenyl | ND | ND | 0.09 | ND | - | ND | ND | ND | NS | NS | NS | NS | NS |
| Carbazole | ND | ND | 1.7 | ND | - | ND | ND | ND | NS | NS | NS | NS | NS |
| Chrysene | **3.4** | **1.2** | **4.1** | **1.1** | - | 0.13 | 0.84 | 0.68 | 1 | 1 | 3.9 | 56 | 110 |
| Dibenz(a,h)anthracene | **0.68** | ND | **0.78** | ND | - | ND | ND | ND | 0.33 | 0.33 | 0.33 | 0.56 | 1.1 |
| Dibenzofuran | ND | 0.33 | 0.72 | 0.16 | - | ND | ND | ND | 7 | 14 | 59 | 350 | 1000 |
| Fluoranthene | 6.9 | 1.6 | 11 | 1.6 | - | 0.21 | 1.7 | 1.5 | 100 | 100 | 100 | 500 | 1000 |
| Fluorene | 0.27 | ND | 0.82 | ND | - | ND | ND | 0.17 | 30 | 100 | 100 | 500 | 1000 |
| Indeno[1,2,3-cd]pyrene | **1.8** | **0.59** | **2.3** | **0.63** | - | 0.088 | **0.54** | 0.37 | 0.5 | 0.5 | 0.5 | 5.6 | 11 |
| Naphthalene | 0.32 | 0.91 | 0.61 | 0.5 | - | ND | ND | ND | 12 | 100 | 100 | 500 | 1000 |
| Phenanthrene | 3.4 | 1.4 | 10 | 1 | - | ND | 1.1 | 1.3 | 100 | 100 | 100 | 500 | 1000 |
| Pyrene | 5.4 | 1.4 | 8.7 | 1.5 | - | 0.18 | 1.4 | 1.1 | 100 | 100 | 100 | 500 | 1000 |
| Total TICs | 57.4 | 10.3 | 40.74 | 35.2 | - | 12.34 | 77.6 | 28.9 | - | - | - | - | - |

**TABLE 2**
**SURFACE AND STEP-OUT SAMPLE ANALYTICAL RESULTS**



| Analyte | Sample Identification, Sample Depth and Sample Collection Date | | | | | | | | | | | | | | | | NYSDEC Part 375 Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | STP-1 E | STP-1 N | STP-1 S | STP-1 W | STP-2 E | STP-2 N | STP-2 S | STP-2 W | STP-3 E | STP-3 N | STP-3 S | STP-3 W | STP-4 E | STP-4 N | STP-4 S | STP-4 W | Unrestricted | Residential | Restricted Residential | Commercial | Industrial |
| | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | 1-2' | | | | | |
| | 8/112025 | | | | | | | | | | | | | | | | | | | | |
| | METALS (ppm) | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 6250 | 8710 | 10200 | 12700 | 12800 | 7980 | 19300 | 7430 | 5140 | 9570 | 4780 | 4970 | 10000 | 16100 | 16500 | 15200 | - | - | - | - | - |
| Antimony | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - |
| Arsenic | 19 | 19.2 | 9.3 | 29.5 | 9.2 | 11.9 | 14.2 | 19.3 | 10.7 | 6.9 | 15.8 | 11.7 | 9.8 | 12.9 | 13.7 | 13.2 | 13 | 16 | 16 | 16 | 16 |
| Barium | 417 | 574 | 114 | 150 | 150 | 103 | 190 | 144 | 83.1 | 116 | 80.5 | 56.9 | 411 | 491 | 537 | 403 | 350 | 350 | 400 | 400 | 10000 |
| Beryllium | 0.68 | 1.6 | 0.77 | 1.3 | 0.8 | 0.61 | 1.1 | 0.65 | 0.81 | 0.49 | 1.1 | 0.77 | 0.59 | 0.97 | 0.99 | 1.2 | 7.2 | 14 | 72 | 590 | 2700 |
| Cadmium | 0.65 | 0.95 | 0.47 | 0.25 | 0.35 | 0.44 | 0.4 | 0.41 | 0.26 | 0.75 | 0.13 | 0.18 | 0.79 | 1.6 | 0.99 | 1.1 | 2.5 | 2.5 | 4.3 | 9.3 | 60 |
| Calcium | 4500 | 7110 | 6460 | 5330 | 10300 | 18000 | 3390 | 16700 | 4820 | 25500 | 3480 | 3500 | 9950 | 10900 | 7350 | 8650 | - | - | - | - | - |
| Chromium | 19.3 | 19.9 | 17.3 | 18.9 | 18.1 | 16.5 | 25.7 | 21.3 | 11.1 | 13.3 | 8.4 | 9.3 | 28.1 | 42.7 | 168 | 39.6 | 1 | 22 | 110 | 400 | 800 |
| Cobalt | 7 | 9.6 | 11.3 | 8.1 | 8.8 | 6.8 | 13.9 | 6.1 | 7 | 6.4 | 8.2 | 8.1 | 8.2 | 11.8 | 13.4 | 11.6 | - | - | - | - | - |
| Copper | 82.8 | 80.3 | 24.9 | 29.1 | 34.6 | 87.8 | 39.3 | 202 | 74 | 33.3 | 60.7 | 69.9 | 56.6 | 761 | 91.4 | 107 | 50 | 270 | 270 | 270 | 10000 |
| Iron | 29500 | 22300 | 31300 | 27800 | 21600 | 25300 | 31800 | 32700 | 29000 | 31500 | 31000 | 37800 | 21300 | 26900 | 37600 | 31600 | - | - | - | - | - |
| Lead | 399 | 656 | 131 | 249 | 154 | 101 | 177 | 267 | 226 | 140 | 37.9 | 95.9 | 1180 | 1090 | 1120 | 2460 | 63 | 400 | 400 | 1000 | 3900 |
| Magnesium | 645 | 1110 | 1190 | 460 | 2460 | 999 | 4170 | 1230 | 567 | 2910 | 238 | 203 | 2110 | 2970 | 3500 | 3040 | - | - | - | - | - |
| Manganese | 211 | 240 | 987 | 52.2 | 866 | 1520 | 380 | 1120 | 128 | 445 | 61.4 | 95.1 | 270 | 330 | 430 | 402 | 1600 | 2000 | 2000 | 10000 | 10000 |
| Nickel | 61.3 | 24.5 | 17.4 | 19.1 | 23 | 16.7 | 39.7 | 23.8 | 15.9 | 20.6 | 17.9 | 16.8 | 22.2 | 37.7 | 39.8 | 37.9 | 30 | 140 | 310 | 310 | 10000 |
| Potassium | 692 | 859 | 1420 | 1440 | 2040 | 1020 | 3530 | 1010 | 622 | 1110 | 485 | 339 | 2110 | 2900 | 3390 | 2950 | - | - | - | - | - |
| Selenium | 2.3 | 0.93 | 1.3 | ND | 1.4 | 2.8 | 1.1 | 2.4 | 1 | 1.3 | 1.6 | ND | 1.1 | 1.4 | 1.3 | 1.8 | 3.9 | 36 | 180 | 1500 | 6800 |
| Silver | ND | 0.22 | ND | ND | 0.22 | 0.22 | 0.35 | 0.22 | ND | ND | ND | ND | 0.4 | 0.79 | 0.85 | 0.68 | 2 | 36 | 180 | 1500 | 6800 |
| Sodium | 244 | 386 | 138 | 651 | 186 | 208 | 173 | 248 | 113 | 117 | 105 | 101 | 153 | 220 | 222 | 145 | - | - | - | - | - |
| Thallium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - |
| Vanadium | 19 | 26.9 | 24.9 | 33 | 26.5 | 18.6 | 40.5 | 19.9 | 18.1 | 23.4 | 20.2 | 19 | 20.2 | 32.3 | 32.2 | 30.5 | - | - | - | - | - |
| Zinc | 435 | 731 | 123 | 56.4 | 146 | 159 | 154 | 186 | 79.4 | 240 | 37.4 | 47.3 | 595 | 1180 | 686 | 652 | 109 | 2200 | 10000 | 10000 | 10000 |
| Cyanide, Total | 1.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.91 | 0.59 | 27 | 27 | 27 | 27 | 10000 |
| Mercury | 0.18 | 0.17 | 0.079 | 0.033 | 0.19 | 0.078 | 0.13 | 0.098 | 0.18 | 0.17 | 0.11 | 0.051 | 2.4 | 0.8 | 2.3 | 1.7 | 0.18 | 0.81 | 0.81 | 2.8 | 5.7 |

**TABLE 3**
**GROUNDWATER SAMPLE ANALYTICAL RESULTS**

| Parameter Tested | Sample Identification and Sample Date | | | | NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) |
|---|---|---|---|---|---|
| | RI-MW-2 | RI-BW-1 | RI-BW-2 | RI-BW-3 | |
| | 8/15/2025 | | | | |
| **METALS (ug/L)** | | | | | |
| Aluminum | ND | 610 | 820 | 310 | NS |
| Antimony | ND | ND | ND | ND | 3 |
| Arsenic | ND | ND | ND | ND | 25.0 |
| Barium | 190 | 99 | 120 | 570 | 1000 |
| Beryllium | ND | ND | ND | ND | 3 |
| Cadmium | ND | ND | ND | ND | 3 |
| Calcium | 115000 | 161000 | 55000 | 115000 | NS |
| Chromium | ND | 1.2 | ND | ND | 50 |
| Cobalt | 2.9 | 1.2 | 0.65 | ND | NS |
| Copper | 3.6 | 2.8 | 1.8 | 1.7 | 200 |
| Cyanide, Total | 8 | 11 | 8 | 6 | 200 |
| Iron | **2500** | **1400** | 140 | **330** | 300 |
| Lead | ND | ND | ND | ND | 25.0 |
| Magnesium | 9400 | 24000 | 19500 | 30500 | 35,000 |
| Manganese | **590** | 100 | 350 | 280 | 300.0 |
| Mercury | ND | ND | ND | ND | 0.7 |
| Nickel | 2.5 | 5.4 | 1.3 | 1.7 | 100.0 |
| Potassium | 4600 | 8900 | 21400 | 4100 | NS |
| Selenium | ND | ND | ND | 9.4 | 10.0 |
| Silver | ND | ND | ND | ND | 50.0 |
| Sodium | 10 | **130000** | **34100** | **73700** | 20,000 |
| Thallium | ND | ND | ND | ND | 0.5 |
| Vanadium | ND | 2.3 | 2.4 | ND | NS |
| Zinc | 21 | 3.5 | ND | ND | 2,000 |
| **SVOCS (ug/L)** | | | | | |
| 1,4-Dioxane | ND | ND | 0.18 | ND | 0.35 |
| 2-Methylnaphthalene | ND | ND | 0.66 | ND | NS |
| Total TICs | 75.4 | 84.6 | 276.3 | 92.1 | NS |
| **VOCS (ug/L)** | | | | | |
| Acetone | ND | ND | 5.8 | ND | 50 |
| Benzene | ND | ND | 0.79 | **1.1** | 1 |
| Cyclohexane | ND | 6.5 | 5.9 | 5.7 | NS |
| Ethylbenzene | ND | 0.84 | 1.2 | 1 | 5 |
| Methylcyclohexane | ND | 7.1 | 5.4 | 6.2 | NS |
| m,p-Xylene | ND | 3.6 | **5** | 4.4 | 5 |
| o-Xylene | ND | 1.7 | 2.7 | 2.2 | 5 |
| Total TICs | 0 | 29.2 | 29.6 | 26.4 | NS |
| Tetrachloroethene | ND | ND | ND | ND | NS |
| Toluene | ND | 2.7 | 3.5 | 3.8 | NS |
| **PFAS (ng/L)** | | | | | |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | 5.5 | ND | ND | ND | NS |
| Perfluorobutanesulfonic acid (PFBS) | 2.0 | ND | ND | ND | NS |
| Perfluorobutanoic acid (PFBA) | 14 | 2.3 | ND | 1.6 | NS |
| Perfluoroheptanoic acid (PFHpA) | 3.1 | ND | ND | ND | NS |
| Perfluorohexanoic acid (PFHxA) | 33 | ND | ND | ND | NS |
| Perfluorooctanesulfonic acid (PFOS) | **11** | ND | ND | ND | 2.7 |
| Perfluorooctanoic acid (PFOA) | **8.1** | ND | ND | ND | 6.7 |
| Perfluoropentanoic acid (PFPeA) | 39 | 1.5 | ND | 0.94 | NS |
| **PCBS (ug/L)** | | | | | |
| Total PCBs | ND | ND | ND | ND | 0.09 |
| **ORGANOCHLORINE PESTICIDES (ug/L)** | | | | | |
| 4,4'-DDT | ND | 0.032 | ND | 0.043 | 0.2 |
| Heptachlor epoxide | ND | ND | 0.0086 | ND | 0.03 |

Notes:
ND Not Detected
NS No Standard
TICs Tentatively Identified Compounds
Exceeds TOGs

# TABLE 4
# VAPOR SAMPLE ANALYTICAL RESULTS

| Contaminants | Sample Identification, Type of Sample, and Date Analyzed | | | | | | | | Table 3.1 NYSDOH Indoor Air Guideline Values |
|---|---|---|---|---|---|---|---|---|---|
| | RI-VP-1 | RI-VP-2 | RI-VP-3 | RI-VP-4 | RI-VP-5 | RI-VP-6 | RI-VP-7 | RI-VP-8 | |
| | 6/5/2025 | | | | | | | | |
| | Volatile Organic Compounds (TO-15) | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | 110 | 110 | 25 | 69 | - |
| 1,3-Butadiene | 12 | 4.8 | 2.7 | 4.0 | 1.9 | 1.8 | ND | 4.1 | - |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | 30 | 30 | 8.0 | 19 | - |
| 2,2,4-Trimethylpentane | 35 | ND | 14 | 11 | ND | 150 | 28 | 29 | - |
| 4-Ethyltoluene | ND | ND | ND | ND | 35 | 36 | ND | 26 | - |
| 4-Isopropyltoluene | ND | ND | ND | ND | 7.1 | 9.1 | ND | 4.8 | - |
| Acetone | 53000 | 9200 | 7400 | 18000 | 5300 | 3100 | 4700 | 4400 | - |
| Benzene | ND | 5.1 | 3.4 | ND | 4.3 | 6.1 | 4.4 | 3.6 | - |
| Carbon disulfide | ND | ND | 53 | ND | 160 | 56 | 24 | 85 | - |
| Cumene | ND | ND | 13 | ND | 12 | 13 | ND | 8.9 | - |
| Cyclohexane | 260 | 55 | 45 | 35 | 1600 | 660 | 890 | 480 | - |
| Ethylbenzene | 23 | ND | 26 | 15 | 42 | 39 | 14 | 36 | - |
| Isopropyl alcohol | 1400 | ND | ND | 460 | 98 | ND | ND | ND | - |
| m,p-Xylene | 40 | 6.2 | 48 | 44 | 100 | 96 | 28 | 84 | - |
| Methyl Butyl Ketone (2-Hexanone) | 410 | 450 | 49 | 42 | 72 | ND | ND | 50 | - |
| Methyl Ethyl Ketone (2-Butanone) | 7400 | 17000 | 540 | 780 | 280 | 160 | 130 | 130 | - |
| Methylene Chloride | ND | ND | ND | ND | ND | ND | ND | ND | 60 |
| n-Butane | 730 | 150 | 2700 | 430 | 1100 | 190 | 98 | 1400 | - |
| n-Butylbenzene | ND | ND | ND | ND | 13 | 16 | ND | 9.7 | - |
| n-Heptane | 920 | 100 | 500 | 54 | 3600 | 2200 | 150 | 44 | - |
| n-Hexane | 2100 | 190 | 1500 | 150 | 3000 | 2400 | 58 | 130 | - |
| n-Propylbenzene | ND | ND | ND | ND | 30 | 29 | ND | 22 | - |
| Naphthalene | ND | ND | ND | ND | ND | 13 | 14 | ND | - |
| o-Xylene | ND | ND | 21 | 13 | 50 | 47 | 14 | 38 | - |
| sec-Butylbenzene | ND | ND | ND | ND | 11 | 12 | ND | 7.0 | - |
| tert-Butyl alcohol | ND | ND | ND | 120 | ND | ND | 160 | ND | - |
| Tetrachloroethene | ND | 21 | 9.3 | **97** | 10 | ND | **140** | 8.3 | 30 |
| Toluene | 68 | 8.0 | 63 | 29 | 68 | 63 | 27 | 65 | - |
| Trichloroethene | ND | ND | **3.4** | ND | **4.7** | **5.5** | ND | ND | 2 |

Notes:

(1) All values are in micrograms per cubic meter ($ug/m^3$)

ND Not detected

- Not applicable/no guidance value

**TABLE 5**
**SUMMARY OF SOIL ANALYTICAL RESULTS**
**FEBRUARY 2023 PHASE II ESA**

| Parameter Tested | BE3 Phase II Report January 2023 - Sample Identification, Sample Depth in feet below ground surface (bgs), and Sample Date | | | | | | | | NYSDEC Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH1 0-2 | BH2 0-3 | BH3 0-3 | BH4 0-3 | BH4 4-5 | BH5 0-3 | BH6 0-3 | BH7 0-3 | Unrestricted | Residential | Restricted Residential | Commerical | Industrial |
| | 1/13/2023 | | | | | | | | | | | | |
| **METALS/INORGANICS** | | | | | | | | | | | | | |
| Arsenic | **35.3** | **17.0** | 3.6 | 11.4 | ND | **44.0** | 10.2 | **32.4** | 13 | 16 | 16 | 16 | 16 |
| Barium | **501** | 221 | 39.5 | 73.0 | ND | 141.0 | 248 | 109 | 410 | 410 | 410 | 410 | 10,000 |
| Beryllium | 1.2 | 2.10 | 0.23 J | 0.5 | ND | 0.89 | 0.78 | 1.10 | 4.4 | 8.8 | 43 | 670 | 750 |
| Cadmium | 1.2 | 0.7 | 0.094 J | 0.3 | ND | 0.35 | 0.62 | 0.37 | 2.5 | 2.5 | 2.5 | 3.7 | 4.4 |
| Chromium | 22.3 | 18.7 | 6.1 | 28.1 | ND | **78.0** | 13.6 | 17.4 | 30 | 30 | 110 | 1,700 | 2,000 |
| Copper | **114.0** | **64.5** | 9.6 | 20.4 | ND | **63.7** | **54.6** | 41.0 | 50 | 280 | 280 | 280 | 10,000 |
| Lead | **1200** | **245** | 60.6 | 10.6 | ND | 31.6 | **386** | **90** | 63 | 400 | 400 | 1,000 | 3,900 |
| Manganese | 313 B | 482 B | 108 B | **3450.0** | ND | **6080 B** | 198 B | 261 B | 1,600 | 2,000 | 2,000 | 10,000 | 10,000 |
| Mercury | **0.52 B** | **0.23 B** | **0.35 B** | 0.04 B | ND | 0.051 B | **0.28 B** | 0.16 B | 0.18 | 0.26 | 0.26 | 1.1 | 1.1 |
| Nickel | 25.8 | **38.0** | 6.1 | 13.9 | ND | **49.4** | 16.7 | 23.3 | 30 | 44 | 210 | 320 | 3,400 |
| Selenium | 3.0 J | ND | ND | 1.5 J | ND | 1.3 J | 1.0 J | 1.1 J | 4 | 22 | 110 | 1,700 | 2,000 |
| Silver | 0.54 J | ND | ND | ND | ND | 0.34 J | 0.34 J | ND | 2 | 22 | 110 | 1,700 | 2,000 |
| Zinc | **353** | **146** | 54.4 | 17.1 | ND | 22.7 | **174** | 91.4 | 109 | 1,300 | 6,600 | 10,000 | 10,000 |
| **SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)** | | | | | | | | | | | | | |
| Acenaphthene | 0.61 J | ND | ND | ND | ND | 0.38 | 0.11 J | ND | 20 | 100 | 100 | 500 | 1,000 |
| Acenaphthylene | ND | ND | ND | ND | ND | ND | 0.036 J | ND | 100 | 100 | 100 | 500 | 1,000 |
| Anthracene | 1.2 J | 1.3 J | ND | ND | ND | 0.84 | 0.37 | ND | 100 | 100 | 100 | 500 | 1,000 |
| Benzo(a)anthracene | **2.9** | **7.5** | ND | ND | ND | **1.4** | **1.3** | 0.086 J | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(a)pyrene | **3.2** | **7.1** | 0.38 J | 0.032 J | ND | **1.2** | **1.3** | 0.13 J | 1 | 1 | 1 | 3.7 | 3.7 |
| Benzo(b)fluoranthene | **3.3** | **9.9** | 0.47 J | 0.04 J | ND | **1.2** | **1.3** | 0.17 J | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(g,h,i)perylene | **5.4** | **4.2** | 0.31 J | 0.038 J | ND | **0.83** | **0.85** | 0.15 J | 0.64 | 1.2 | 4.9 | 47 | 78 |
| Benzo(k)fluoranthene | **1.4 J** | **4.3** | 0.16 J | ND | ND | 0.64 | 0.72 | 0.071 J | 0.8 | 1.2 | 4.9 | 47 | 78 |
| Chrysene | **3.1** | **9.1** | 0.30 J | ND | ND | **1.3** | **1.4** | 0.13 J | 1 | 1.2 | 4.9 | 47 | 78 |
| Dibenz(a,h)anthracene | **1.5 J** | **2.2** | ND | ND | ND | 0.24 | 0.27 | 0.047 J | 0.33 | 0.33 | 0.33 | 3.7 | 3.7 |
| Dibenzofuran | 0.33 J | ND | ND | ND | ND | 0.22 | 0.074 J | ND | 2.1 | 4.2 | 18 | 180 | 290 |
| Fluoranthene | 7.0 | 11 | 0.49 J | 0.029 J | ND | 2.9 | 2.2 | 0.14 J | 85 | 100 | 100 | 500 | 1,000 |
| Fluorene | 0.55 J | 0.37 J | ND | ND | ND | 0.39 | 0.11 J | ND | 30 | 100 | 100 | 500 | 1,000 |
| Indeno(1,2,3-cd)pyrene | **2.40** | **4.4** | 0.27 J | 0.034 J | ND | **0.74** | **0.8** | 0.11 J | 0.5 | 0.5 | 1.4 | 37 | 37 |
| Naphthalene | ND | ND | ND | ND | ND | 0.13 J | 0.071 J | ND | 12 | 84 | 100 | 500 | 1,000 |
| Phenanthrene | **6.0** | **4.5** | 0.27 J | 0.036 J | ND | **3.1** | **1.6** | 0.11 J | 1.1 | 1.2 | 4.9 | 47 | 78 |
| Pyrene | 6.0 | 8.2 | 0.46 J | 0.037 J | ND | 3.1 | 2.3 | 0.17 J | 64 | 100 | 100 | 500 | 1,000 |

ND Analyte not detected
\- Not Applicable or sample not tested for this analyte
J Estimated Concentration
B Anaalyte detected in method blank
K Result is reported as Benzo(b)fluoranthene
E Results exceeded calibration range
T Result is Tentatively Identifies Compound and an estimated value

Analyte detected
Reported concentration greater than or equal to the NYSDEC Unrestricted SCO
Reported concentration greater than or equal to the NYSDEC Residential SCO
Reported concentration greater than or equal to the NYSDEC Restricted Residential SCO
Reported concentration greater than or equal to the NYSDEC Commercial SCO
Reported concentration greater than or equal to the NYSDEC Industrial SCO

**TABLE 5**
**SUMMARY OF SOIL ANALYTICAL RESULTS**
**FEBRUARY 2023 PHASE II ESA**

| Parameter Tested | BE3 Phase II Report January 2023 - Sample Identification, Sample Depth in feet below ground surface (bgs), and Sample Date | | | | | | | | NYSDEC Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH8 0-3 | BH9 0-3 | BH10 0-2 | BH11 0-2 | BH12 0-2 | BH13 0-2 | BH14 1-2 | BH15 1-2 | Unrestricted | Residential | Restricted Residential | Commerical | Industrial |
| | 1/13/2023 | | | | | | | | | | | | |
| **METALS/INORGANICS** | | | | | | | | | | | | | |
| Arsenic | 4.2 | 10.7 | 12.5 | 10.0 | 9.4 | **15.1** | 8.3 | **16.9** | 13 | 16 | 16 | 16 | 16 |
| Barium | 90.7 | 155 | 180.0 | 194 | 203 | **633** | 89.7 | 131 | 410 | 410 | 410 | 410 | 10,000 |
| Beryllium | 0.85 | 0.8 | 0.92 | 0.74 | 0.50 | 0.89 | 0.80 | 0.95 | 4.4 | 8.8 | 43 | 670 | 750 |
| Cadmium | 0.17 J | 0 | 0.460 | 0.95 | 0.63 | 0.7 | 0.23 J | 0.40 | 2.5 | 2.5 | 2.5 | 3.7 | 4.4 |
| Chromium | 6.5 | 26.8 | 26.6 | **33.1** | 16.5 | 28.2 | 11.0 | 12.9 | 30 | 30 | 110 | 1,700 | 2,000 |
| Copper | 31.8 | 32.1 | 33.2 | 58.6 | 30.9 | 70.8 | 49.0 | 84.5 | 50 | 280 | 280 | 280 | 10,000 |
| Lead | 47.9 | **104.0** | **281.0** | **393.0** | **447** | **1120** | **70.6** | **192** | 63 | 400 | 400 | 1,000 | 3,900 |
| Manganese | 290 B | 302 B | 375 B | 320 B | 365 B | 762 B | 288 B | 336 B | 1,600 | 2,000 | 2,000 | 10,000 | 10,000 |
| Mercury | 0.035 B | 0.15 B | 0.15 B | **0.32 B** | **1.0 B** | **6.7 B** | **0.44 B** | **0.27 B** | 0.18 | 0.26 | 0.26 | 1.1 | 1.1 |
| Nickel | 8.4 | **33.7** | **31.6** | **44.6** | 15.6 | **30.1** | 20.7 | 24.6 | 30 | 44 | 210 | 320 | 3,400 |
| Selenium | ND | 0.65 J | ND | ND | ND | 1.1 J | ND | 1.4 J | 4 | 22 | 110 | 1,700 | 2,000 |
| Zinc | 39.8 | **105.0** | **176.0** | **261** | **284** | **438** | 93.1 | 99 | 109 | 1,300 | 6,600 | 10,000 | 10,000 |
| **SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)** | | | | | | | | | | | | | |
| Acenaphthene | ND | ND | 0.049 J | ND | 0.42 | ND | ND | ND | 20 | 100 | 100 | 500 | 1,000 |
| Acenaphthylene | ND | ND | ND | ND | ND | ND | 0.13 J | 0.028 J | 100 | 100 | 100 | 500 | 1,000 |
| Anthracene | ND | ND | 0.19 J | ND | 0.9 | ND | ND | ND | 100 | 100 | 100 | 500 | 1,000 |
| Benzo(a)anthracene | ND | ND | 0.39 | ND | **1.5** | 0.093 J | 0.44 J | 0.28 | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(a)pyrene | ND | 0.18 J | 0.38 | ND | **1.2** | 0.13 J | 0.57 J | 0.27 | 1 | 1 | 1 | 3.7 | 3.7 |
| Benzo(b)fluoranthene | ND | 0.21 J | 0.42 | ND | **1.1** | 0.15 J | 0.83 J | 0.34 | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(g,h,i)perylene | ND | ND | 0.26 | ND | **0.740** | 0.095 J | 0.38 J | 0.16 J | 0.64 | 1.2 | 4.9 | 47 | 78 |
| Benzo(k)fluoranthene | ND | 0.14 J | 0.2 J | ND | 0.63 | 0.061 J | 0.29 J | 0.16 J | 0.8 | 1.2 | 4.9 | 47 | 78 |
| Chrysene | ND | ND | 0.43 | ND | **1.5** | 0.14 J | 0.52 J | 0.3 | 1 | 1.2 | 4.9 | 47 | 78 |
| Dibenz(a,h)anthracene | ND | ND | 0.084 J | ND | 0.18 J | ND | ND | 0.051 J | 0.33 | 0.33 | 0.33 | 3.7 | 3.7 |
| Dibenzofuran | ND | ND | 0.051 J | ND | 0.16 J | ND | ND | 0.03 J | 2.1 | 4.2 | 18 | 180 | 290 |
| Fluoranthene | 3.5 J | 0.39 J | 0.8 | 6.3 J | 2.9 | 0.250 | 0.61 J | 0.31 | 85 | 100 | 100 | 500 | 1,000 |
| Fluorene | ND | ND | 0.064 J | ND | 0.340 | ND | ND | ND | 30 | 100 | 100 | 500 | 1,000 |
| Indeno(1,2,3-cd)pyrene | ND | 0.13 J | 0.25 | ND | **0.69** | 0.095 J | 0.37 J | 0.16 J | 0.5 | 0.5 | 1.4 | 37 | 37 |
| Naphthalene | ND | ND | 0.039 J | ND | ND | ND | ND | 0.041 J | 12 | 84 | 100 | 500 | 1,000 |
| Phenanthrene | ND | 0.25 J | 0.77 | **5.8 J** | **3.6** | 0.19 J | 0.2 J | 0.23 | 1.1 | 1.2 | 4.9 | 47 | 78 |
| Pyrene | 3.2 J | 0.35 J | 0.83 | 5.0 J | 3.6 | 0.260 | 0.51 J | 0.35 | 64 | 100 | 100 | 500 | 1,000 |

Notes: All units in parts per million (ppm)

ND Analyte not detected
- Not Applicable or sample not tested for this analyte
J Estimated Concentration
B Anaalyte detected in method blank
K Result is reported as Benzo(b)fluoranthene
E Results exceeded calibration range
T Result is Tentatively Identifies Compound and an estimated value

Analyte detected
Reported concentration greater than or equal to the NYSDEC Unrestricted SCO
Reported concentration greater than or equal to the NYSDEC Residential SCO
Reported concentration greater than or equal to the NYSDEC Restricted Residential SCO
Reported concentration greater than or equal to the NYSDEC Commercial SCO
Reported concentration greater than or equal to the NYSDEC Industrial SCO

**TABLE 5**
**SUMMARY OF SOIL ANALYTICAL RESULTS**
**FEBRUARY 2023 PHASE II ESA**

| Parameter Tested | BE3 Phase II Report January 2023 - Sample Identification, Sample Depth in feet below ground surface (bgs), and Sample Date | | | | NYSDEC Soil Cleanup Objectives (SCOs) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BH-16 0-4 | BH-17 0-4 | | | | | | | |
| | 1/13/2023 | | | | Unrestricted | Residential | Restricted Residential | Commerical | Industrial |
| **METALS/INORGANICS** | | | | | | | | | |
| Arsenic | 62.2 | 11.5 | | | 13 | 16 | 16 | 16 | 16 |
| Barium | 603 | 161 | | | 410 | 410 | 410 | 410 | 10,000 |
| Beryllium | 0.6 | 1.20 | | | 4.4 | 8.8 | 43 | 670 | 750 |
| Cadmium | 1.6 | 0.45 | | | 2.5 | 2.5 | 2.5 | 3.7 | 4.4 |
| Chromium | 145.0 | 51.9 | | | 30 | 30 | 110 | 1,700 | 2,000 |
| Copper | 114.0 | 37.1 | | | 50 | 280 | 280 | 280 | 10,000 |
| Lead | 714 | 12 | | | 63 | 400 | 400 | 1,000 | 3,900 |
| Manganese | 1910 B | 9770 B | | | 1,600 | 2,000 | 2,000 | 10,000 | 10,000 |
| Mercury | 0.30 B | 0.008 J B | | | 0.18 | 0.26 | 0.26 | 1.1 | 1.1 |
| Nickel | 44.1 | 22.9 | | | 30 | 44 | 210 | 320 | 3,400 |
| Selenium | 3.9 J | 3.5 J | | | 4 | 22 | 110 | 1,700 | 2,000 |
| Zinc | 376 | 41.7 | | | 109 | 1,300 | 6,600 | 10,000 | 10,000 |
| **SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)** | | | | | | | | | |
| Acenaphthene | ND | ND | | | 20 | 100 | 100 | 500 | 1,000 |
| Acenaphthylene | ND | ND | | | 100 | 100 | 100 | 500 | 1,000 |
| Anthracene | ND | ND | | | 100 | 100 | 100 | 500 | 1,000 |
| Benzo(a)anthracene | 2.3 J | ND | | | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(a)pyrene | 3.1 J | ND | | | 1 | 1 | 1 | 3.7 | 3.7 |
| Benzo(b)fluoranthene | ND | ND | | | 1 | 1 | 1.4 | 37 | 37 |
| Benzo(g,h,i)perylene | ND | ND | | | 0.64 | 1.2 | 4.9 | 47 | 78 |
| Benzo(k)fluoranthene | ND | ND | | | 0.8 | 1.2 | 4.9 | 47 | 78 |
| Chrysene | ND | ND | | | 1 | 1.2 | 4.9 | 47 | 78 |
| Dibenz(a,h)anthracene | ND | ND | | | 0.33 | 0.33 | 0.33 | 3.7 | 3.7 |
| Dibenzofuran | ND | ND | | | 2.1 | 4.2 | 18 | 180 | 290 |
| Fluoranthene | 6.0 J | 0.027 J | | | 85 | 100 | 100 | 500 | 1,000 |
| Fluorene | ND | ND | | | 30 | 100 | 100 | 500 | 1,000 |
| Indeno(1,2,3-cd)pyrene | ND | ND | | | 0.5 | 0.5 | 1.4 | 37 | 37 |
| Naphthalene | ND | ND | | | 12 | 84 | 100 | 500 | 1,000 |
| Phenanthrene | 4.8 J | ND | | | 1.1 | 1.2 | 4.9 | 47 | 78 |
| Pyrene | 4.5 J | 0.027 J | | | 64 | 100 | 100 | 500 | 1,000 |

Notes: All units in parts per million (ppm)

ND Analyte not detected

\- Not Applicable or sample not tested for this analyte

J Estimated Concentration

B Analyte detected in method blank

K Result is reported as Benzo(b)fluoranthene

E Results exceeded calibration range

Analyte detected

Reported concentration greater than or equal to the NYSDEC Unrestricted SCO

Reported concentration greater than or equal to the NYSDEC Residential SCO

Reported concentration greater than or equal to the NYSDEC Restricted Residential SCO

Reported concentration greater than or equal to the NYSDEC Commercial SCO

Reported concentration greater than or equal to the NYSDEC Industrial SCO

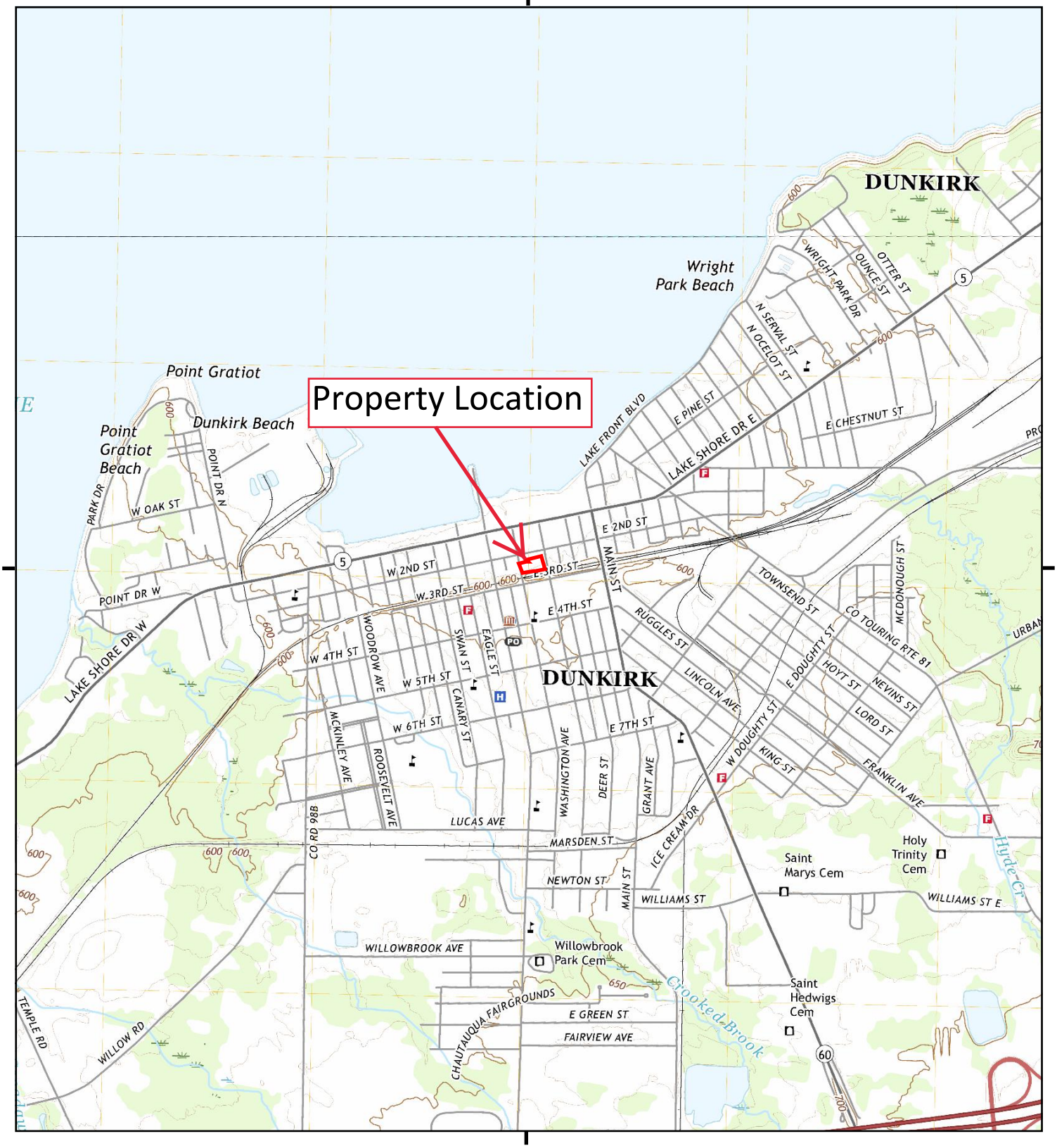
**TABLE 6**

**BORING-MONITORING WELL-VAPOR GPS COORDINATES**

| Sample Identification | Coordinates-North American Datum 1983 | |
|---|---|---|
| | Latitude | Longitude |
| **Borings** | | |
| RI-BH-1 | 42.48566 | -79.33304 |
| RI-BH-2 | 42.485722 | -79.333383 |
| RI-BH-3 | 42.485869 | -79.333167 |
| RI-BH-4 | 42.485936 | -79.333192 |
| RI-BH-5 | 42.485994 | -79.332969 |
| RI-BH-6 | 42.485906 | -79.333086 |
| RI-BH-7 | 42.485744 | -79.333172 |
| RI-BH-8 | 42.48565 | -79.332753 |
| RI-BH-9 | 42.485825 | -79.332836 |
| RI-BH-10 | 42.486067 | -79.33275 |
| RI-BH-11 | 42.485931 | -79.332597 |
| RI-BH-12 | 42.485675 | -79.332247 |
| RI-BH-13 | 42.485786 | -79.332297 |
| RI-BH-14 | 42.485956 | -79.332456 |
| RI-BH-15 | 42.486175 | -79.332403 |
| RI-BH-16 | 42.486017 | -79.3322 |
| **Surface Samples** | | |
| SS-1 | 42.486108 | -79.332992 |
| SS-2 | 42.485986 | -79.333014 |
| SS-3 | 42.485931 | -79.332742 |
| SS-4 | 42.48575 | -79.332167 |
| SS-5 | 42.486189 | -79.332561 |
| SS-6 | 42.485794 | -79.332928 |
| SS-7 | 42.485767 | -79.332528 |
| SS-8 | 42.486028 | -79.332258 |
| **Step-Out Samples** | | |
| STP-1 | 42.486108 | -79.332992 |
| STP-2 | 42.485931 | -79.332742 |
| STP-3 | 42.48575 | -79.332167 |
| STP-4 | 42.486189 | -79.332561 |
| **Overburden Wells** | | |
| RI-MW-1 | 42.485592 | -79.333025 |
| RI-MW-2 | 42.485972 | -79.333314 |
| RI-MW-3 | 42.486156 | -79.332794 |
| RI-MW-4 | 42.486253 | -79.332231 |
| RI-MW-5 | 42.485753 | -79.332147 |

| **Bedrock Wells** | | |
|---|---|---|
| RI-BW-1 | 42.486206 | -79.332242 |
| RI-BW-2 | 42.485753 | -79.332211 |
| RI-BW-3 | 42.485981 | -79.333261 |
| **Vapor Pobes** | | |
| RI-VP-1 | 42.485669 | -79.332419 |
| RI-VP-2 | 42.485981 | -79.333264 |
| RI-VP-3 | 42.485642 | -79.332744 |
| RI-VP-4 | 42.485814 | -79.332853 |
| RI-VP-5 | 42.485797 | -79.332281 |
| RI-VP-6 | 42.486106 | -79.332303 |
| RI-VP-7 | 42.486147 | -79.332717 |
| RI-VP-8 | 42.485647 | -79.333308 |

# Figures




This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Dunkirk, 2019, 7.5-minute
N, North of Dunkirk, 2019, 7.5-minute

**FIGURE 1**
**Site Location Map**
**Block of Washington, E.2nd & Park**

N

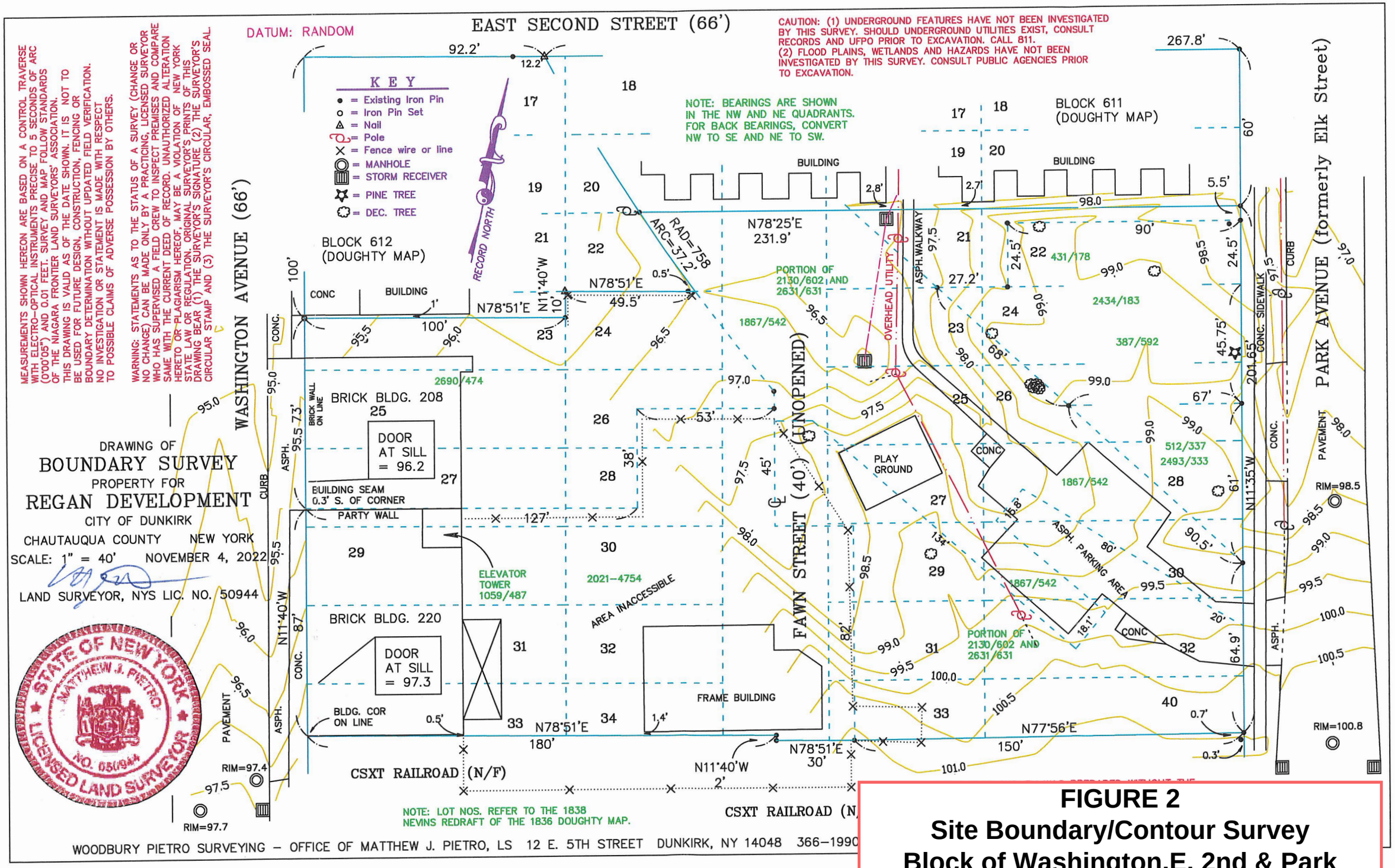
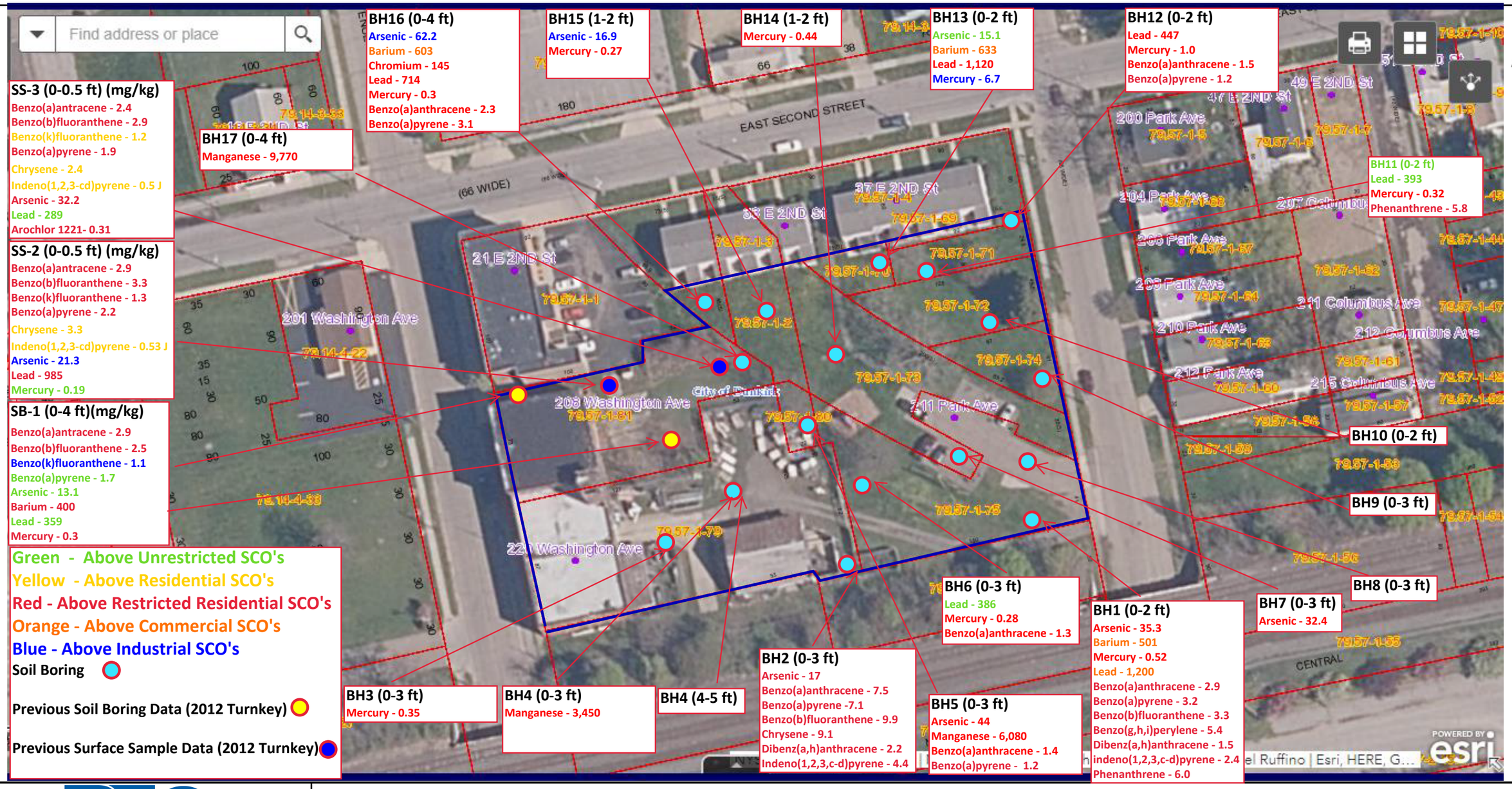
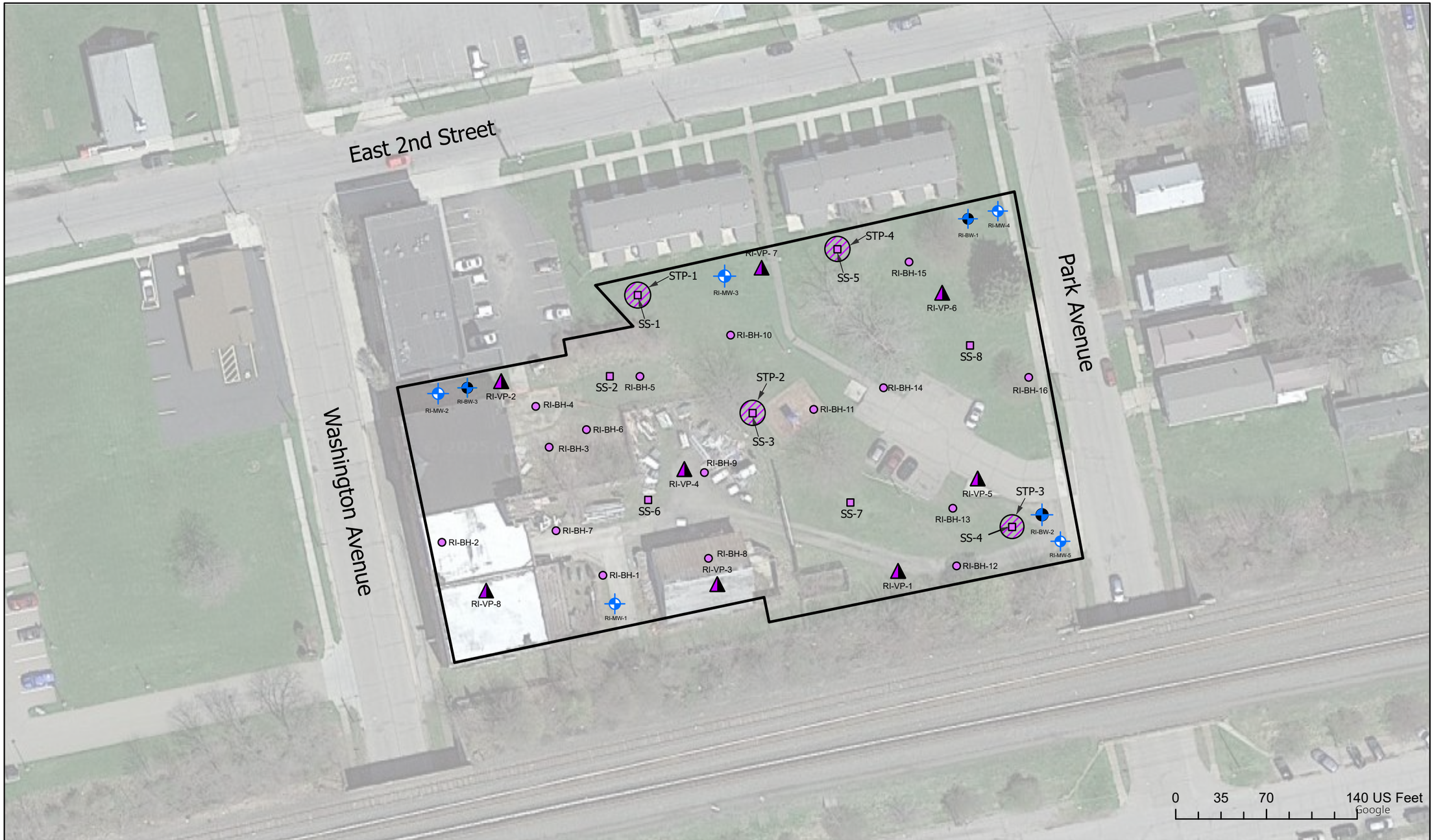



**FIGURE 2**
**Site Boundary/Contour Survey**
**Block of Washington.E. 2nd & Park**




| | | |
|---|---|---|
| BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | Boring Locations | |
| | Dunkirk | 1/13/2023 |
| | New York | Regan Development - Dunkirk |

**FIGURE 3 - Phase 2 ESA - Block of Washington,E. 2nd & Park-Boring Soil Sample Locations & Analytical Results**




## LEGEND

- Property Boundary
- MW-1 — RI Monitoring Well
- RI-BH-1 — RI Boring Locations
- VP-1 — Vapor Point
- STP-1 — Step Out Sample
- SS-2 — Surface Sample
- RI-BW-1 — RI Bedrock Well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CLIENT: REGAN DEVELOPMENT

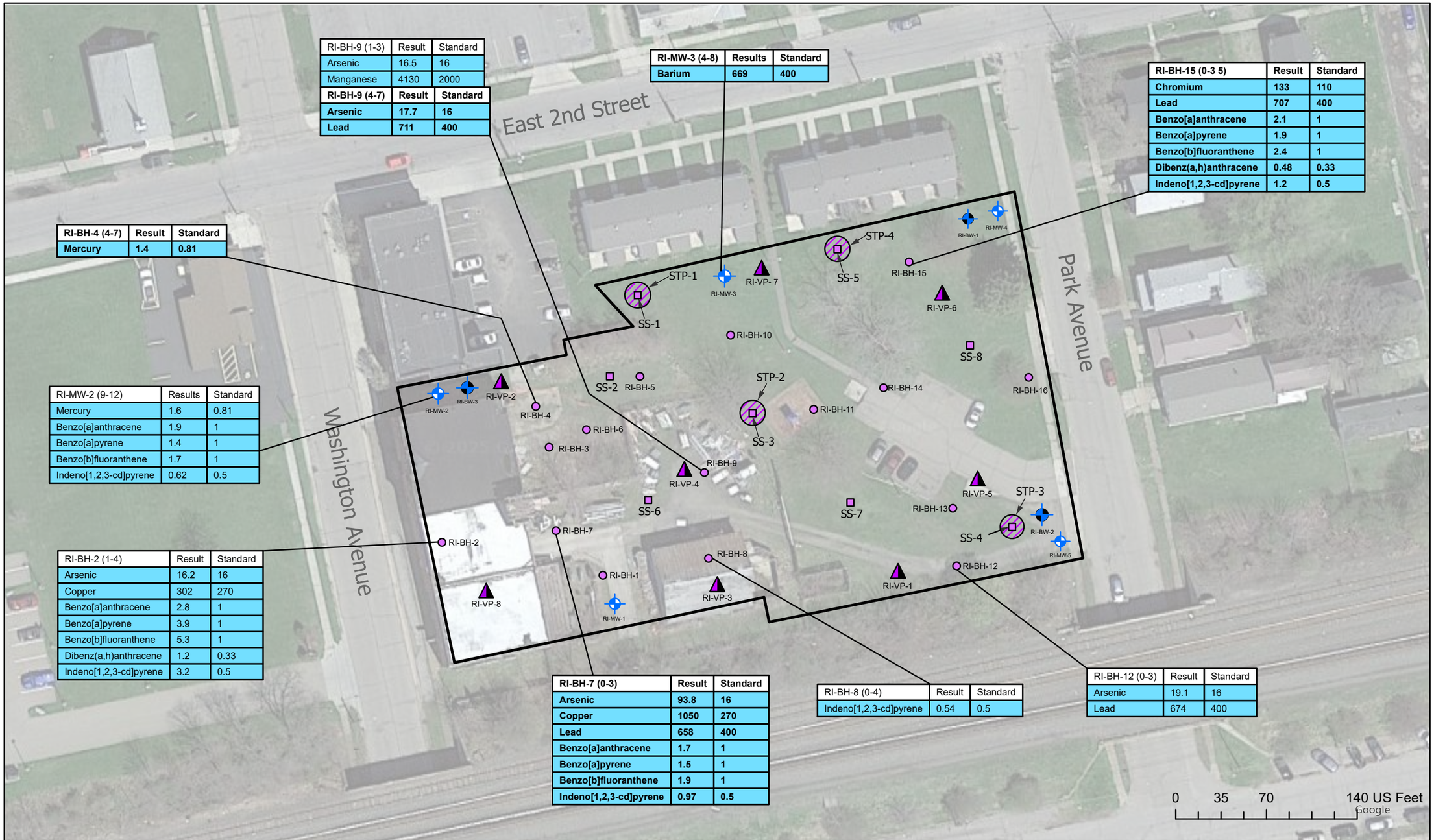
# FIGURE 4
## RI Sampling Locations

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

N
W E
S

DATE ISSUED:
July 31, 2025

SCALE: 1:910




| RI-BH-9 (1-3) | Result | Standard |
|---|---|---|
| Arsenic | 16.5 | 16 |
| Manganese | 4130 | 2000 |
| **RI-BH-9 (4-7)** | **Result** | **Standard** |
| **Arsenic** | **17.7** | **16** |
| **Lead** | **711** | **400** |

| RI-MW-3 (4-8) | Results | Standard |
|---|---|---|
| **Barium** | **669** | **400** |

| RI-BH-15 (0-3 5) | Result | Standard |
|---|---|---|
| **Chromium** | **133** | **110** |
| **Lead** | **707** | **400** |
| **Benzo[a]anthracene** | **2.1** | **1** |
| **Benzo[a]pyrene** | **1.9** | **1** |
| **Benzo[b]fluoranthene** | **2.4** | **1** |
| **Dibenz(a,h)anthracene** | **0.48** | **0.33** |
| **Indeno[1,2,3-cd]pyrene** | **1.2** | **0.5** |

| RI-BH-4 (4-7) | Result | Standard |
|---|---|---|
| **Mercury** | **1.4** | **0.81** |

| RI-MW-2 (9-12) | Results | Standard |
|---|---|---|
| Mercury | 1.6 | 0.81 |
| Benzo[a]anthracene | 1.9 | 1 |
| Benzo[a]pyrene | 1.4 | 1 |
| Benzo[b]fluoranthene | 1.7 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.62 | 0.5 |

| RI-BH-2 (1-4) | Result | Standard |
|---|---|---|
| Arsenic | 16.2 | 16 |
| Copper | 302 | 270 |
| Benzo[a]anthracene | 2.8 | 1 |
| Benzo[a]pyrene | 3.9 | 1 |
| Benzo[b]fluoranthene | 5.3 | 1 |
| Dibenz(a,h)anthracene | 1.2 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 3.2 | 0.5 |

| RI-BH-7 (0-3) | Result | Standard |
|---|---|---|
| **Arsenic** | **93.8** | **16** |
| **Copper** | **1050** | **270** |
| **Lead** | **658** | **400** |
| **Benzo[a]anthracene** | **1.7** | **1** |
| **Benzo[a]pyrene** | **1.5** | **1** |
| **Benzo[b]fluoranthene** | **1.9** | **1** |
| **Indeno[1,2,3-cd]pyrene** | **0.97** | **0.5** |

| RI-BH-8 (0-4) | Result | Standard |
|---|---|---|
| Indeno[1,2,3-cd]pyrene | 0.54 | 0.5 |

| RI-BH-12 (0-3) | Result | Standard |
|---|---|---|
| Arsenic | 19.1 | 16 |
| Lead | 674 | 400 |

## LEGEND

- Property Boundary
- MW-1 — RI Monitoring Well
- RI-BH-1 — RI Boring Locations
- VP-1 — Vapor Point
- STP-1 — Step Out Sample
- SS-2 — Surface Sample
- RI-BW-1 — RI Bedrock Well

## NOTES

1. All values are provided in parts per million (ppm).
2. Standard references restricted residential SCOs.


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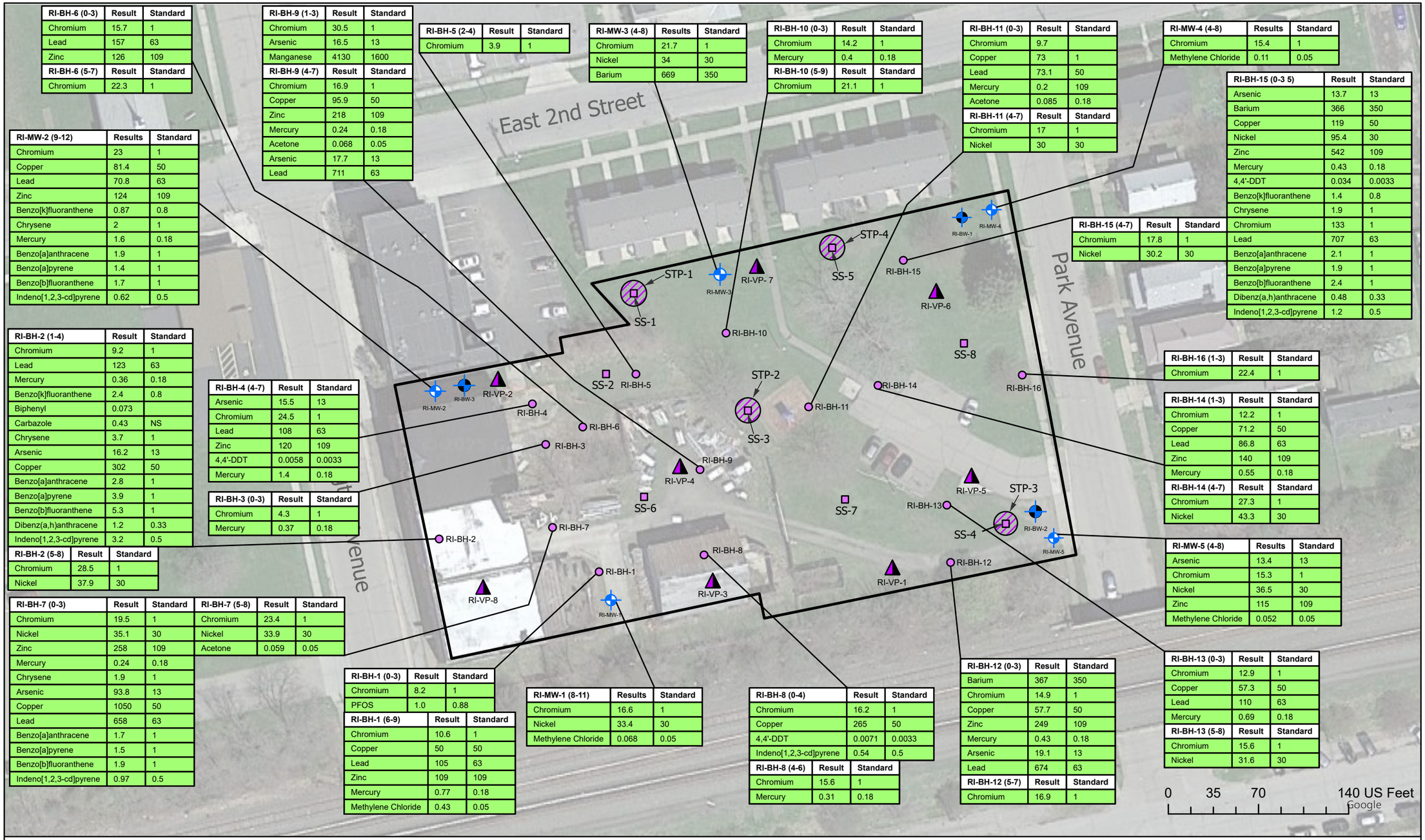
FIGURE 5
RI Restricted Residential Exceedances
Boring Soil Samples

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

N W E S

DATE ISSUED:
August 28, 2025
△
△
△

SCALE: 1:910




| RI-BH-6 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 15.7 | 1 |
| Lead | 157 | 63 |
| Zinc | 126 | 109 |
| **RI-BH-6 (5-7)** | **Result** | **Standard** |
| Chromium | 22.3 | 1 |

| RI-BH-9 (1-3) | Result | Standard |
|---|---|---|
| Chromium | 30.5 | 1 |
| Arsenic | 16.5 | 13 |
| Manganese | 4130 | 1600 |
| **RI-BH-9 (4-7)** | **Result** | **Standard** |
| Chromium | 16.9 | 1 |
| Copper | 95.9 | 50 |
| Zinc | 218 | 109 |
| Mercury | 0.24 | 0.18 |
| Acetone | 0.068 | 0.05 |
| Arsenic | 17.7 | 13 |
| Lead | 711 | 63 |

| RI-BH-5 (2-4) | Result | Standard |
|---|---|---|
| Chromium | 3.9 | 1 |

| RI-MW-3 (4-8) | Results | Standard |
|---|---|---|
| Chromium | 21.7 | 1 |
| Nickel | 34 | 30 |
| Barium | 669 | 350 |

| RI-BH-10 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 14.2 | 1 |
| Mercury | 0.4 | 0.18 |
| **RI-BH-10 (5-9)** | **Result** | **Standard** |
| Chromium | 21.1 | 1 |

| RI-BH-11 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 9.7 | |
| Copper | 73 | 1 |
| Lead | 73.1 | 50 |
| Mercury | 0.2 | 109 |
| Acetone | 0.085 | 0.18 |
| **RI-BH-11 (4-7)** | **Result** | **Standard** |
| Chromium | 17 | 1 |
| Nickel | 30 | 30 |

| RI-MW-4 (4-8) | Results | Standard |
|---|---|---|
| Chromium | 15.4 | 1 |
| Methylene Chloride | 0.11 | 0.05 |

| RI-BH-15 (0-3 5) | Result | Standard |
|---|---|---|
| Arsenic | 13.7 | 13 |
| Barium | 366 | 350 |
| Copper | 119 | 50 |
| Nickel | 95.4 | 30 |
| Zinc | 542 | 109 |
| Mercury | 0.43 | 0.18 |
| 4,4'-DDT | 0.034 | 0.0033 |
| Benzo[k]fluoranthene | 1.4 | 0.8 |
| Chrysene | 1.9 | 1 |
| Chromium | 133 | 1 |
| Lead | 707 | 63 |
| Benzo[a]anthracene | 2.1 | 1 |
| Benzo[a]pyrene | 1.9 | 1 |
| Benzo[b]fluoranthene | 2.4 | 1 |
| Dibenz(a,h)anthracene | 0.48 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 1.2 | 0.5 |

| RI-BH-15 (4-7) | Result | Standard |
|---|---|---|
| Chromium | 17.8 | 1 |
| Nickel | 30.2 | 30 |

| RI-MW-2 (9-12) | Results | Standard |
|---|---|---|
| Chromium | 23 | 1 |
| Copper | 81.4 | 50 |
| Lead | 70.8 | 63 |
| Zinc | 124 | 109 |
| Benzo[k]fluoranthene | 0.87 | 0.8 |
| Chrysene | 2 | 1 |
| Mercury | 1.6 | 0.18 |
| Benzo[a]anthracene | 1.9 | 1 |
| Benzo[a]pyrene | 1.4 | 1 |
| Benzo[b]fluoranthene | 1.7 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.62 | 0.5 |

| RI-BH-2 (1-4) | Result | Standard |
|---|---|---|
| Chromium | 9.2 | 1 |
| Lead | 123 | 63 |
| Mercury | 0.36 | 0.18 |
| Benzo[k]fluoranthene | 2.4 | 0.8 |
| Biphenyl | 0.073 | |
| Carbazole | 0.43 | NS |
| Chrysene | 3.7 | 1 |
| Arsenic | 16.2 | 13 |
| Copper | 302 | 50 |
| Benzo[a]anthracene | 2.8 | 1 |
| Benzo[a]pyrene | 3.9 | 1 |
| Benzo[b]fluoranthene | 5.3 | 1 |
| Dibenz(a,h)anthracene | 1.2 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 3.2 | 0.5 |

| RI-BH-2 (5-8) | Result | Standard |
|---|---|---|
| Chromium | 28.5 | 1 |
| Nickel | 37.9 | 30 |

| RI-BH-4 (4-7) | Result | Standard |
|---|---|---|
| Arsenic | 15.5 | 13 |
| Chromium | 24.5 | 1 |
| Lead | 108 | 63 |
| Zinc | 120 | 109 |
| 4,4'-DDT | 0.0058 | 0.0033 |
| Mercury | 1.4 | 0.18 |

| RI-BH-3 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 4.3 | 1 |
| Mercury | 0.37 | 0.18 |

| RI-BH-16 (1-3) | Result | Standard |
|---|---|---|
| Chromium | 22.4 | 1 |

| RI-BH-14 (1-3) | Result | Standard |
|---|---|---|
| Chromium | 12.2 | 1 |
| Copper | 71.2 | 50 |
| Lead | 86.8 | 63 |
| Zinc | 140 | 109 |
| Mercury | 0.55 | 0.18 |
| **RI-BH-14 (4-7)** | **Result** | **Standard** |
| Chromium | 27.3 | 1 |
| Nickel | 43.3 | 30 |

| RI-MW-5 (4-8) | Results | Standard |
|---|---|---|
| Arsenic | 13.4 | 13 |
| Chromium | 15.3 | 1 |
| Nickel | 36.5 | 30 |
| Zinc | 115 | 109 |
| Methylene Chloride | 0.052 | 0.05 |

| RI-BH-7 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 19.5 | 1 |
| Nickel | 35.1 | 30 |
| Zinc | 258 | 109 |
| Mercury | 0.24 | 0.18 |
| Chrysene | 1.9 | 1 |
| Arsenic | 93.8 | 13 |
| Copper | 1050 | 50 |
| Lead | 658 | 63 |
| Benzo[a]anthracene | 1.7 | 1 |
| Benzo[a]pyrene | 1.5 | 1 |
| Benzo[b]fluoranthene | 1.9 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.97 | 0.5 |

| RI-BH-7 (5-8) | Result | Standard |
|---|---|---|
| Chromium | 23.4 | 1 |
| Nickel | 33.9 | 30 |
| Acetone | 0.059 | 0.05 |

| RI-BH-1 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 8.2 | 1 |
| PFOS | 1.0 | 0.88 |
| **RI-BH-1 (6-9)** | **Result** | **Standard** |
| Chromium | 10.6 | 1 |
| Copper | 50 | 50 |
| Lead | 105 | 63 |
| Zinc | 109 | 109 |
| Mercury | 0.77 | 0.18 |
| Methylene Chloride | 0.43 | 0.05 |

| RI-MW-1 (8-11) | Results | Standard |
|---|---|---|
| Chromium | 16.6 | 1 |
| Nickel | 33.4 | 30 |
| Methylene Chloride | 0.068 | 0.05 |

| RI-BH-8 (0-4) | Result | Standard |
|---|---|---|
| Chromium | 16.2 | 1 |
| Copper | 265 | 50 |
| 4,4'-DDT | 0.0071 | 0.0033 |
| Indeno[1,2,3-cd]pyrene | 0.54 | 0.5 |
| **RI-BH-8 (4-6)** | **Result** | **Standard** |
| Chromium | 15.6 | 1 |
| Mercury | 0.31 | 0.18 |

| RI-BH-12 (0-3) | Result | Standard |
|---|---|---|
| Barium | 367 | 350 |
| Chromium | 14.9 | 1 |
| Copper | 57.7 | 50 |
| Zinc | 249 | 109 |
| Mercury | 0.43 | 0.18 |
| Arsenic | 19.1 | 13 |
| Lead | 674 | 63 |
| **RI-BH-12 (5-7)** | **Result** | **Standard** |
| Chromium | 16.9 | 1 |

| RI-BH-13 (0-3) | Result | Standard |
|---|---|---|
| Chromium | 12.9 | 1 |
| Copper | 57.3 | 50 |
| Lead | 110 | 63 |
| Mercury | 0.69 | 0.18 |
| **RI-BH-13 (5-8)** | **Result** | **Standard** |
| Chromium | 15.6 | 1 |
| Nickel | 31.6 | 30 |

## LEGEND

- Property Boundary
- RI Monitoring Well (MW-1)
- RI Boring Locations (RI-BH-1)
- Vapor Point (VP-1)
- Step Out Sample (STP-1)
- Surface Sample (SS-2)
- RI Bedrock Well (RI-BW-1)

## NOTES

1. All values are provided in parts per million (ppm).
2. Standard references unrestricted SCOs.


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FIGURE 5A
RI Unrestricted Exceedances
Boring Soil Samples
Block of Washington, East 2nd and Park
Dunkirk, NY 14048

N W E S

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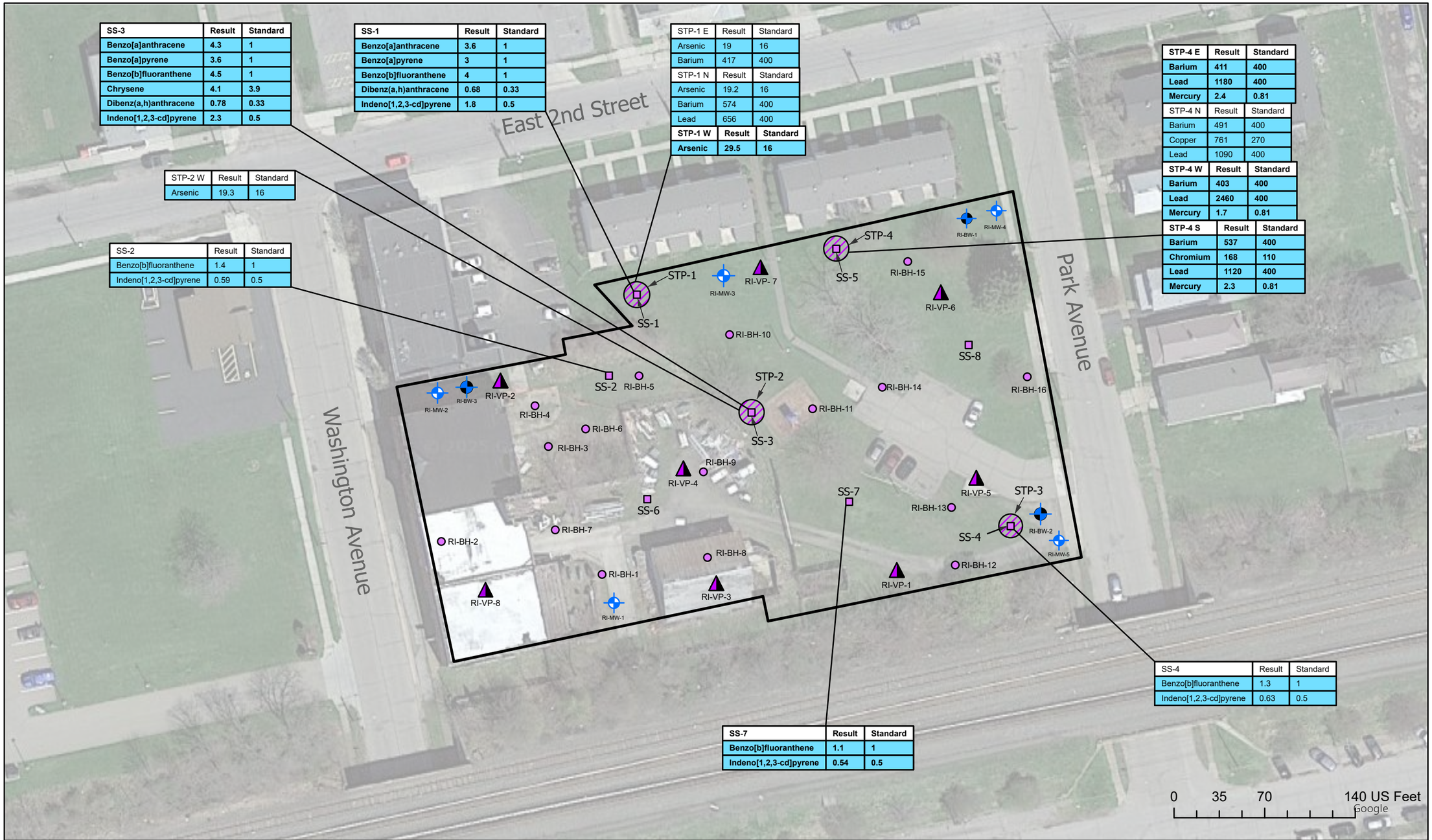


| SS-3 | Result | Standard |
|---|---|---|
| Benzo[a]anthracene | 4.3 | 1 |
| Benzo[a]pyrene | 3.6 | 1 |
| Benzo[b]fluoranthene | 4.5 | 1 |
| Chrysene | 4.1 | 3.9 |
| Dibenz(a,h)anthracene | 0.78 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 2.3 | 0.5 |

| SS-1 | Result | Standard |
|---|---|---|
| Benzo[a]anthracene | 3.6 | 1 |
| Benzo[a]pyrene | 3 | 1 |
| Benzo[b]fluoranthene | 4 | 1 |
| Dibenz(a,h)anthracene | 0.68 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 1.8 | 0.5 |

| STP-1 E | Result | Standard |
|---|---|---|
| Arsenic | 19 | 16 |
| Barium | 417 | 400 |
| STP-1 N | Result | Standard |
| Arsenic | 19.2 | 16 |
| Barium | 574 | 400 |
| Lead | 656 | 400 |
| **STP-1 W** | **Result** | **Standard** |
| **Arsenic** | **29.5** | **16** |

| STP-4 E | Result | Standard |
|---|---|---|
| **Barium** | **411** | **400** |
| **Lead** | **1180** | **400** |
| **Mercury** | **2.4** | **0.81** |
| STP-4 N | Result | Standard |
| Barium | 491 | 400 |
| Copper | 761 | 270 |
| Lead | 1090 | 400 |
| **STP-4 W** | **Result** | **Standard** |
| **Barium** | **403** | **400** |
| **Lead** | **2460** | **400** |
| **Mercury** | **1.7** | **0.81** |
| **STP-4 S** | **Result** | **Standard** |
| **Barium** | **537** | **400** |
| **Chromium** | **168** | **110** |
| **Lead** | **1120** | **400** |
| **Mercury** | **2.3** | **0.81** |

| STP-2 W | Result | Standard |
|---|---|---|
| Arsenic | 19.3 | 16 |

| SS-2 | Result | Standard |
|---|---|---|
| Benzo[b]fluoranthene | 1.4 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.59 | 0.5 |

| SS-4 | Result | Standard |
|---|---|---|
| Benzo[b]fluoranthene | 1.3 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.63 | 0.5 |

| SS-7 | Result | Standard |
|---|---|---|
| **Benzo[b]fluoranthene** | **1.1** | **1** |
| **Indeno[1,2,3-cd]pyrene** | **0.54** | **0.5** |

## LEGEND

- Property Boundary
- MW-1 — RI Monitoring Well
- RI-BH-1 — RI Boring Locations
- VP-1 — Vapor Point
- STP-1 — Step Out Sample
- SS-2 — Surface Sample
- RI-BW-1 — RI Bedrock Well

## NOTES

1. All values are provided in parts per million (ppm).
2. Standard references restricted residential SCOs.


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FIGURE 6
Restricted Residential Soil Exceedances
Surface and Step-out Samples

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

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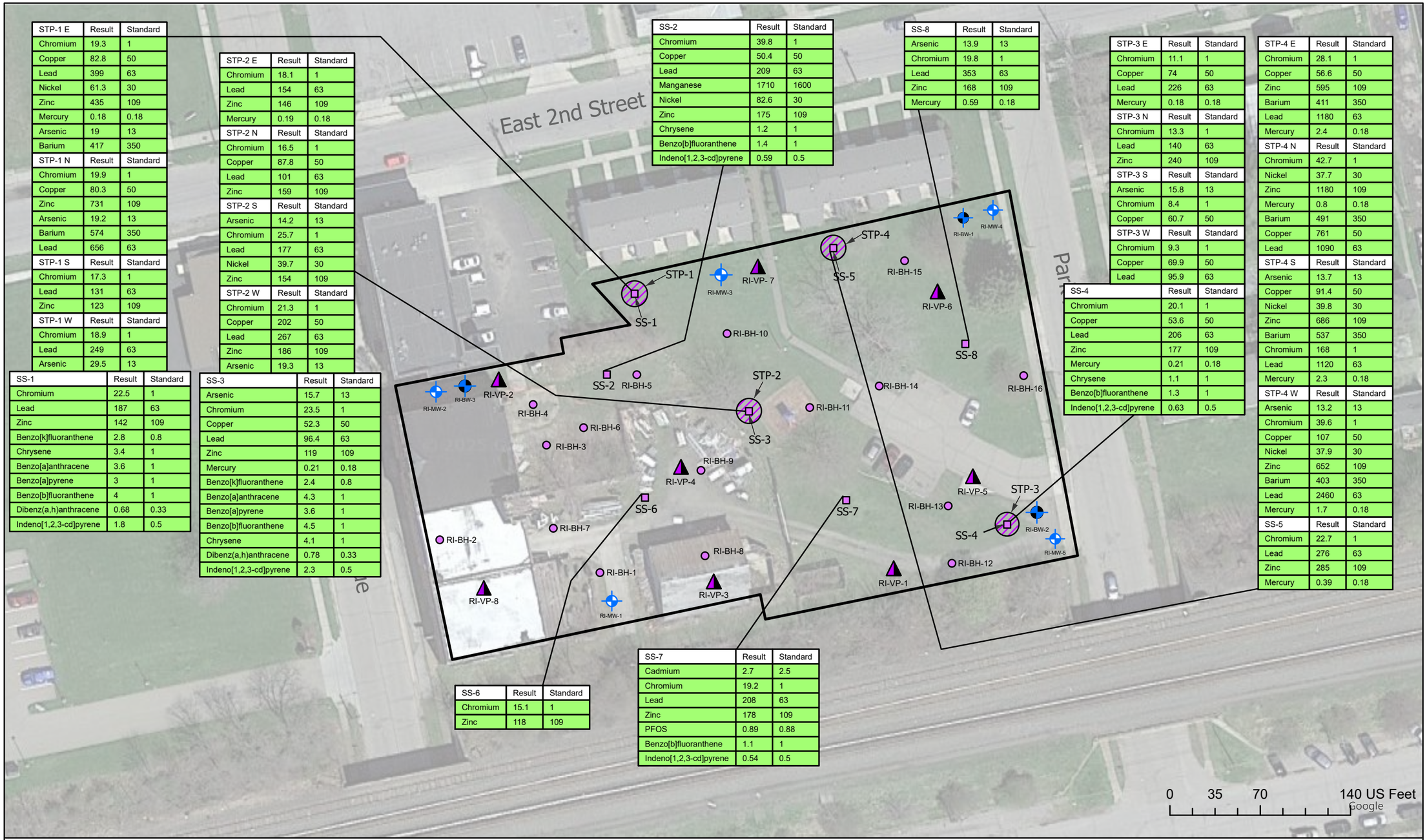


| STP-1 E | Result | Standard |
|---|---|---|
| Chromium | 19.3 | 1 |
| Copper | 82.8 | 50 |
| Lead | 399 | 63 |
| Nickel | 61.3 | 30 |
| Zinc | 435 | 109 |
| Mercury | 0.18 | 0.18 |
| Arsenic | 19 | 13 |
| Barium | 417 | 350 |
| STP-1 N | Result | Standard |
| Chromium | 19.9 | 1 |
| Copper | 80.3 | 50 |
| Zinc | 731 | 109 |
| Arsenic | 19.2 | 13 |
| Barium | 574 | 350 |
| Lead | 656 | 63 |
| STP-1 S | Result | Standard |
| Chromium | 17.3 | 1 |
| Lead | 131 | 63 |
| Zinc | 123 | 109 |
| STP-1 W | Result | Standard |
| Chromium | 18.9 | 1 |
| Lead | 249 | 63 |
| Arsenic | 29.5 | 13 |

| STP-2 E | Result | Standard |
|---|---|---|
| Chromium | 18.1 | 1 |
| Lead | 154 | 63 |
| Zinc | 146 | 109 |
| Mercury | 0.19 | 0.18 |
| STP-2 N | Result | Standard |
| Chromium | 16.5 | 1 |
| Copper | 87.8 | 50 |
| Lead | 101 | 63 |
| Zinc | 159 | 109 |
| STP-2 S | Result | Standard |
| Arsenic | 14.2 | 13 |
| Chromium | 25.7 | 1 |
| Lead | 177 | 63 |
| Nickel | 39.7 | 30 |
| Zinc | 154 | 109 |
| STP-2 W | Result | Standard |
| Chromium | 21.3 | 1 |
| Copper | 202 | 50 |
| Lead | 267 | 63 |
| Zinc | 186 | 109 |
| Arsenic | 19.3 | 13 |

| SS-2 | Result | Standard |
|---|---|---|
| Chromium | 39.8 | 1 |
| Copper | 50.4 | 50 |
| Lead | 209 | 63 |
| Manganese | 1710 | 1600 |
| Nickel | 82.6 | 30 |
| Zinc | 175 | 109 |
| Chrysene | 1.2 | 1 |
| Benzo[b]fluoranthene | 1.4 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.59 | 0.5 |

| SS-8 | Result | Standard |
|---|---|---|
| Arsenic | 13.9 | 13 |
| Chromium | 19.8 | 1 |
| Lead | 353 | 63 |
| Zinc | 168 | 109 |
| Mercury | 0.59 | 0.18 |

| STP-3 E | Result | Standard |
|---|---|---|
| Chromium | 11.1 | 1 |
| Copper | 74 | 50 |
| Lead | 226 | 63 |
| Mercury | 0.18 | 0.18 |
| STP-3 N | Result | Standard |
| Chromium | 13.3 | 1 |
| Lead | 140 | 63 |
| Zinc | 240 | 109 |
| STP-3 S | Result | Standard |
| Arsenic | 15.8 | 13 |
| Chromium | 8.4 | 1 |
| Copper | 60.7 | 50 |
| STP-3 W | Result | Standard |
| Chromium | 9.3 | 1 |
| Copper | 69.9 | 50 |
| Lead | 95.9 | 63 |

| SS-4 | Result | Standard |
|---|---|---|
| Chromium | 20.1 | 1 |
| Copper | 53.6 | 50 |
| Lead | 206 | 63 |
| Zinc | 177 | 109 |
| Mercury | 0.21 | 0.18 |
| Chrysene | 1.1 | 1 |
| Benzo[b]fluoranthene | 1.3 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.63 | 0.5 |

| STP-4 E | Result | Standard |
|---|---|---|
| Chromium | 28.1 | 1 |
| Copper | 56.6 | 50 |
| Zinc | 595 | 109 |
| Barium | 411 | 350 |
| Lead | 1180 | 63 |
| Mercury | 2.4 | 0.18 |
| STP-4 N | Result | Standard |
| Chromium | 42.7 | 1 |
| Nickel | 37.7 | 30 |
| Zinc | 1180 | 109 |
| Mercury | 0.8 | 0.18 |
| Barium | 491 | 350 |
| Copper | 761 | 50 |
| Lead | 1090 | 63 |
| STP-4 S | Result | Standard |
| Arsenic | 13.7 | 13 |
| Copper | 91.4 | 50 |
| Nickel | 39.8 | 30 |
| Zinc | 686 | 109 |
| Barium | 537 | 350 |
| Chromium | 168 | 1 |
| Lead | 1120 | 63 |
| Mercury | 2.3 | 0.18 |
| STP-4 W | Result | Standard |
| Arsenic | 13.2 | 13 |
| Chromium | 39.6 | 1 |
| Copper | 107 | 50 |
| Nickel | 37.9 | 30 |
| Zinc | 652 | 109 |
| Barium | 403 | 350 |
| Lead | 2460 | 63 |
| Mercury | 1.7 | 0.18 |
| SS-5 | Result | Standard |
| Chromium | 22.7 | 1 |
| Lead | 276 | 63 |
| Zinc | 285 | 109 |
| Mercury | 0.39 | 0.18 |

| SS-1 | Result | Standard |
|---|---|---|
| Chromium | 22.5 | 1 |
| Lead | 187 | 63 |
| Zinc | 142 | 109 |
| Benzo[k]fluoranthene | 2.8 | 0.8 |
| Chrysene | 3.4 | 1 |
| Benzo[a]anthracene | 3.6 | 1 |
| Benzo[a]pyrene | 3 | 1 |
| Benzo[b]fluoranthene | 4 | 1 |
| Dibenz(a,h)anthracene | 0.68 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 1.8 | 0.5 |

| SS-3 | Result | Standard |
|---|---|---|
| Arsenic | 15.7 | 13 |
| Chromium | 23.5 | 1 |
| Copper | 52.3 | 50 |
| Lead | 96.4 | 63 |
| Zinc | 119 | 109 |
| Mercury | 0.21 | 0.18 |
| Benzo[k]fluoranthene | 2.4 | 0.8 |
| Benzo[a]anthracene | 4.3 | 1 |
| Benzo[a]pyrene | 3.6 | 1 |
| Benzo[b]fluoranthene | 4.5 | 1 |
| Chrysene | 4.1 | 1 |
| Dibenz(a,h)anthracene | 0.78 | 0.33 |
| Indeno[1,2,3-cd]pyrene | 2.3 | 0.5 |

| SS-6 | Result | Standard |
|---|---|---|
| Chromium | 15.1 | 1 |
| Zinc | 118 | 109 |

| SS-7 | Result | Standard |
|---|---|---|
| Cadmium | 2.7 | 2.5 |
| Chromium | 19.2 | 1 |
| Lead | 208 | 63 |
| Zinc | 178 | 109 |
| PFOS | 0.89 | 0.88 |
| Benzo[b]fluoranthene | 1.1 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.54 | 0.5 |

## LEGEND

- Property Boundary
- MW-1 — RI Monitoring Well
- RI-BH-1 — RI Boring Locations
- VP-1 — Vapor Point
- STP-1 — Step Out Sample
- SS-2 — Surface Sample
- RI-BW-1 — RI Bedrock Well

## NOTES

1. All values are provided in parts per million (ppm).
2. Standard references unrestricted SCOs.


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FIGURE 6A
RI Unrestricted Soil Exceedances
Surface and Step-out Samples

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

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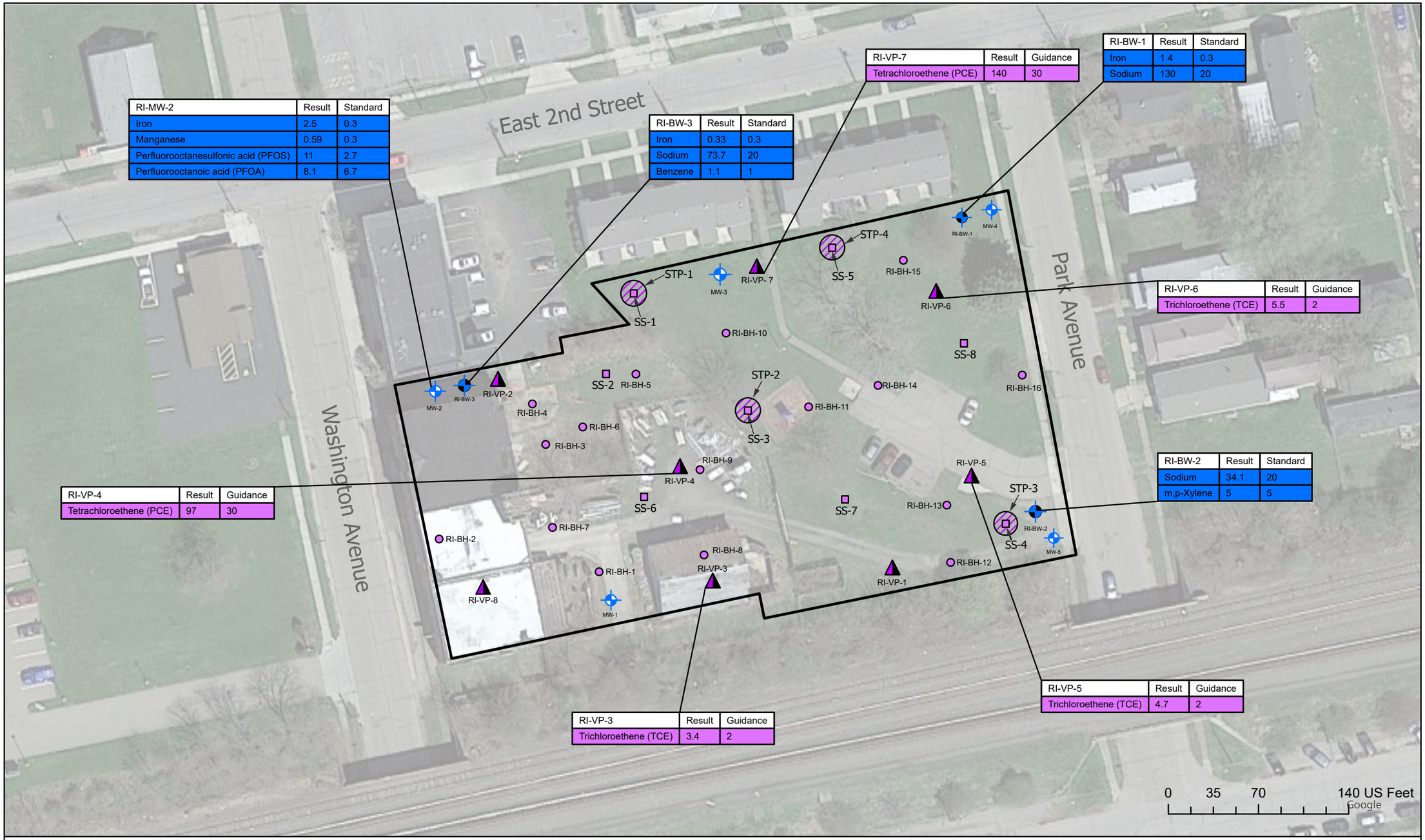


## LEGEND

- Property Boundary
- MW-1 — RI Monitoring Well
- RI-BH-1 — RI Boring Locations
- VP-1 — Vapor Point
- STP-1 — Step Out Sample
- SS-2 — Surface Sample
- RI-BW-1 — RI Bedrock Well

## NOTES

1. All values are provided in parts per billion (ppb).
2. Groundwater results are provided in blue.
3. Vapor results are provided in purple.
4. Groundwater standard references TOGS 1.1.1 Guidance Values.
5. Vapor result is considered elevated since it exceeds the Indoor Air Guidance Value for the listed compound (NYSDOH Soil Vapor Intrusion Guidance).


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FIGURE 7
RI Groundwater and Soil Vapor Sample Guidance Exceedances

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

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## LEGEND

- Property Boundary
- Potential Areas for Reuse
- Proposed Asphalt Hardscape
- Proposed Building Footprint
- Proposed Stone/Gras Recreation Area
- Proposed Lawn/Tree Greenspace

## SQUARE FOOTAGE (SF) BREAKDOWN

1. Greenspace
   Recreation Area: 5,000 SF
   Lawn/Landscape Areas: 15,300 SF
2. Hardscape
   Building: 17,400 SF
   Asphalt Parking Lot: 21,500 SF

## NOTES

1.) Greenspace Remedial Approach
-Remove approximately 2 feet of hardscape and/or underlying soils.
-Replace with 2 +/- feet of clean soils.
2.) Hardscape Remedial Approach
-Soils beneath the areas of proposed new development buildings and hardscape shall be cut/filled to the depth of new building foundations/slabs or hardscape to meet new development grades. Approximate average cuts and fills are as follows: Asphalt= -1.5 ft, Slabs= +3.25 ft, Foundations= -5 ft.
-Replace with building foundations or hardscape.
3.) Soil cover must meet a minimum of 2 feet of clean soil or hardscape meeting NYSDEC restricted residential criteria.

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FIGURE 9
Alternative 1
Restricted Residential Remediation

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

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## LEGEND

- Property Boundary
- Proposed Asphalt Hardscape
- Proposed Building Footprint
- Proposed Stone/Gras Recreation Area
- Proposed Lawn/Tree Greenspace

## SQUARE FOOTAGE (SF) BREAKDOWN

1. Greenspace
   Recreation Area: 5,000 SF
   Lawn/Landscape Areas: 15,300 SF
2. Hardscape
   Building: 17,400 SF
   Asphalt Parking Lot: 21,500 SF

## NOTES

1.) Remedial Approach (same in greenspace and hardscape areas)
   -Remove all soil/fill across the Site where soil concentrations exceed the unrestricted use SCOs or to bedrock (whichever is shallower)
   -Backfill all areas with clean soil to meet new development grades
2.) Imported soil must meet NYSDEC unrestricted use criteria.

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FIGURE 10
Alternative 2
Unrestricted Use Remediation

Block of Washington, East 2nd and Park
Dunkirk, NY 14048

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# Appendices

# Appendix A

# Daily Field Reports

960 Busti Ave.
Buffalo, New York 14213

## DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Friday, May 30, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Sessler Environmental |
| **Weather Conditions:** | Sunny 60 ˚F WSW 4 MPH |

**Description of Work Performed:**

| | |
|---|---|
| 8:30 | Arrived on site and met with Chris (Sessler Environmental). Michael Keller with DEC onsite aswell. |
| 8:35 | Set up upwind downwind air monitors. |
| 8:45 | Began completing vapor points starting with VP-5. |
| 10:00 | Started borings at BH-9 and worked in a counter clockwise direction. |
| 12:30 | Started lunch |
| 13:00 | Resume with sampling well screen intervals starting with RI-MW-2. |
| 16:30 | Completed all exterior soil samples and vapor probe locations. Vapor probes capped. |
| End of Day | Samples delivered to laboratory. |

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 driller, 1 helper |
| Contractor Equipment | Geoprobe (Model 7720DT) |
| Attachments : Photolog, Air Quality Data, Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## PHOTO LOG

| | |
|---|---|
| Date: | Friday, May 30, 2025 |
| Site Name: | 2nd & Washington |

1. RI-VP-5 location, facing SE

2. RI-VP-6 location, facing E.

3. RI-BH-9 location, facing NE.

4. RI-BH-7 location, facing W.

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960 Busti Ave.
Buffalo, New York 14213

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Friday, May 30, 2025 |
|---|---|
| Site Name: | 2nd & Washington |

| Upwind Data | | Downwind Data | | | Delta |
|---|---|---|---|---|---|
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 5/30/2025 9:30 | 3 | 5/30/2025 9:30 | | 0 | -3 |
| 5/30/2025 9:45 | 2.7 | 5/30/2025 9:45 | 4.9 | 0 | 2.2 |
| 5/30/2025 10:00 | 4.5 | 5/30/2025 10:00 | 6.4 | 0 | 1.9 |
| 5/30/2025 10:15 | 3 | 5/30/2025 10:15 | 5.3 | 0 | 2.3 |
| 5/30/2025 10:30 | 3.6 | 5/30/2025 10:30 | 5.8 | 0 | 2.2 |
| 5/30/2025 10:45 | 2.7 | 5/30/2025 10:45 | 5.2 | 0 | 2.5 |
| 5/30/2025 11:00 | 2.7 | 5/30/2025 11:00 | 5.5 | 0 | 2.8 |
| 5/30/2025 11:15 | 2.1 | 5/30/2025 11:15 | 6.8 | 0 | 4.7 |
| 5/30/2025 11:30 | 3.4 | 5/30/2025 11:30 | 5.1 | 0 | 1.7 |
| 5/30/2025 11:45 | 3.1 | 5/30/2025 11:45 | 5.1 | 0 | 2 |
| 5/30/2025 12:00 | 3.7 | 5/30/2025 12:00 | 6.5 | 0 | 2.8 |
| 5/30/2025 12:15 | 3.3 | 5/30/2025 12:15 | 6 | 0 | 2.7 |
| 5/30/2025 12:30 | 3.2 | 5/30/2025 12:30 | 6.8 | 0 | 3.6 |
| 5/30/2025 12:45 | 3.5 | 5/30/2025 12:45 | 6.7 | 0 | 3.2 |
| 5/30/2025 13:00 | 3 | 5/30/2025 13:00 | 5.9 | 0 | 2.9 |
| 5/30/2025 13:15 | 2.8 | 5/30/2025 13:15 | 6.3 | 0 | 3.5 |
| 5/30/2025 13:30 | 2.7 | 5/30/2025 13:30 | 5.2 | 0 | 2.5 |
| 5/30/2025 13:45 | 2.1 | 5/30/2025 13:45 | 5.7 | 0 | 3.6 |
| 5/30/2025 14:00 | 2.9 | 5/30/2025 14:00 | 5.2 | 0 | 2.3 |
| 5/30/2025 14:15 | 5.1 | 5/30/2025 14:15 | 5.5 | 0 | 0.4 |
| 5/30/2025 14:30 | 2.4 | 5/30/2025 14:30 | 4.5 | 0 | 2.1 |
| 5/30/2025 14:45 | 2.5 | 5/30/2025 14:45 | 4.4 | 0 | 1.9 |
| 5/30/2025 15:00 | 2.4 | 5/30/2025 15:00 | 5.2 | 0 | 2.8 |

***Particulate Threshold PM 10  15minute average = 100µg/m³ above background***

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Friday, May 30, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

## DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Monday, June 2, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Sessler Environmental |
| **Weather Conditions:** | Sunny 67 ˚F WSW 6 MPH |

**Description of Work Performed:**

Arrived on site and met with Chris (Sessler Environmental). Michael Keller with DEC onsite aswell.

Set up upwind downwind air monitors.

Began augering overburden well locations. All cuttings stored in onsite 55-gallon drums.

Final well depths were recorded.

All 5 overburden wells were installed.

End of day spent cleaning equipment.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 driller, 1 helper |
| Contractor Equipment | Geoprobe (Model 7720DT) with auger attachment. |
| Attachments : Air Quality Data, Work Location Map | |
| Inspectors Name | Travis Numan |

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

960 Busti Ave.
Buffalo, New York 14213

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Monday, June 2, 2025 |
|---|---|
| Site Name: | 2nd & Washington |

| Upwind Data | | Downwind Data | | | Delta |
|---|---|---|---|---|---|
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 6/2/2025 9:15 | 0 | 6/2/2025 9:15 | 0 | 0 | 0 |
| 6/2/2025 9:30 | 1.4 | 6/2/2025 9:30 | 3 | 0 | 1.6 |
| 6/2/2025 9:45 | 2.1 | 6/2/2025 9:45 | 1.6 | 0 | -0.5 |
| 6/2/2025 10:00 | 1.6 | 6/2/2025 10:00 | 3.2 | 0 | 1.6 |
| 6/2/2025 10:15 | 1.2 | 6/2/2025 10:15 | 3 | 0 | 1.8 |
| 6/2/2025 10:30 | 2.4 | 6/2/2025 10:30 | 2.5 | 0 | 0.1 |
| 6/2/2025 10:45 | 1.4 | 6/2/2025 10:45 | 1.9 | 0 | 0.5 |
| 6/2/2025 11:00 | 1.7 | 6/2/2025 11:00 | 3.6 | 0 | 1.9 |
| 6/2/2025 11:15 | 1.6 | 6/2/2025 11:15 | 4.2 | 0 | 2.6 |
| 6/2/2025 11:30 | 2.3 | 6/2/2025 11:30 | 4.3 | 0 | 2 |
| 6/2/2025 11:45 | 2.4 | 6/2/2025 11:45 | 3.6 | 0 | 1.2 |
| 6/2/2025 12:00 | 2.7 | 6/2/2025 12:00 | 4.7 | 0 | 2 |
| 6/2/2025 12:15 | 2.4 | 6/2/2025 12:15 | 5.1 | 0 | 2.7 |
| 6/2/2025 12:30 | 2.4 | 6/2/2025 12:30 | 4.4 | 0 | 2 |
| 6/2/2025 12:45 | 2.1 | 6/2/2025 12:45 | 5.3 | 0 | 3.2 |
| 6/2/2025 13:00 | 2.4 | 6/2/2025 13:00 | 4.2 | 0 | 1.8 |
| 6/2/2025 13:15 | 3.8 | 6/2/2025 13:15 | 5.9 | 0 | 2.1 |
| 6/2/2025 13:30 | 8.1 | 6/2/2025 13:30 | 5.9 | 0 | -2.2 |
| 6/2/2025 13:45 | 3.5 | 6/2/2025 13:45 | 5.3 | 0 | 1.8 |
| 6/2/2025 14:00 | 2.3 | 6/2/2025 14:00 | 4.6 | 0 | 2.3 |
| 6/2/2025 14:15 | 3.8 | 6/2/2025 14:15 | 4.7 | 0 | 0.9 |
| 6/2/2025 14:30 | 3.4 | 6/2/2025 14:30 | 5.1 | 0 | 1.7 |
| 6/2/2025 14:45 | 2.3 | 6/2/2025 14:45 | 4.1 | 0 | 1.8 |
| 6/2/2025 15:00 | 12.9 | 6/2/2025 15:00 | 4.1 | 0 | -8.8 |
| 6/2/2025 15:15 | 8.5 | 6/2/2025 15:15 | 3.7 | 0 | -4.8 |
| 6/2/2025 15:30 | 13.8 | 6/2/2025 15:30 | 3.3 | 0 | -10.5 |
| 6/2/2025 15:45 | 18.1 | 6/2/2025 15:45 | 2.8 | 0 | -15.3 |

***Particulate Threshold PM 10  15minute average = 100µg/m³ above background***

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Monday, June 2, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

## DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Tuesday, June 3, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Sessler Environmental |
| **Weather Conditions:** | Sunny 75 ˚F WSW 3 MPH |

**Description of Work Performed:**

Arrived on site and met with Chris (Sessler Environmental). Michael Keller with DEC onsite as well.

Set up upwind downwind air monitors.

Began with RI-BH-8. Crew cut a hole in wooden floor to expose soil for geoprobing.

RI-BH-1 moved east outside of building footprint due to access constraints.

Crew cored concrete to expose soils in RI-BH-2 location for geoprobing.

RI-MW-2 was the only overburden well found to be producing water during development. Further purging and sampling will occur when bedrock wells are installed.

All samples packaged and dropped off to the laboratory at the end of the day.

| | |
|---|---|
| Problems/Observations: | RI DEVIATIONS: RI-BH-1 location moved east just outside of the building due to accessibility issues. 4 of 5 overburden wells were found to be dry during development. Bedrock wells will be installed in consultation with DEC. |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 driller, 1 helper |
| Contractor Equipment | Geoprobe (Model 7720DT) with auger attachment. |
| Attachments : Air Quality Data, Work Location Map | |
| Inspectors Name | Travis Numan and Jim Hull |

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

**960 Busti Ave.**
**Buffalo, New York 14213**

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Tuesday, June 3, 2025 | | | | |
|---|---|---|---|---|---|
| Site Name: | 2nd & Washington | | | | |
| Upwind Data | | Downwind Data | | | Delta |
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 6/3/2025 8:45 | 0 | 6/3/2025 8:45 | | 0 | 0 |
| 6/3/2025 9:00 | 10.4 | 6/3/2025 9:00 | 7.4 | 0 | -3 |
| 6/3/2025 9:15 | 3 | 6/3/2025 9:15 | 4 | 0 | 1 |
| 6/3/2025 9:30 | 2.6 | 6/3/2025 9:30 | 3.5 | 0 | 0.9 |
| 6/3/2025 9:45 | 3.9 | 6/3/2025 9:45 | 4.2 | 0 | 0.3 |
| 6/3/2025 10:00 | 3.4 | 6/3/2025 10:00 | 3.7 | 0 | 0.3 |
| 6/3/2025 10:15 | 4.6 | 6/3/2025 10:15 | 4.6 | 0 | 0 |
| 6/3/2025 10:30 | 3.5 | 6/3/2025 10:30 | 4.3 | 0 | 0.8 |
| 6/3/2025 10:45 | 3.7 | 6/3/2025 10:45 | 5.5 | 0 | 1.8 |
| 6/3/2025 11:00 | 3.5 | 6/3/2025 11:00 | 6.2 | 0 | 2.7 |
| 6/3/2025 11:15 | 3.4 | 6/3/2025 11:15 | 4.9 | 0 | 1.5 |
| 6/3/2025 11:30 | 5 | 6/3/2025 11:30 | 5.3 | 0 | 0.3 |
| 6/3/2025 11:45 | 4.8 | 6/3/2025 11:45 | 4.9 | 0 | 0.1 |
| 6/3/2025 12:00 | 5.5 | 6/3/2025 12:00 | 6.4 | 0 | 0.9 |
| 6/3/2025 12:15 | 5.1 | 6/3/2025 12:15 | 5.9 | 0 | 0.8 |
| 6/3/2025 12:30 | 5.5 | 6/3/2025 12:30 | 6.5 | 0 | 1 |

***Particulate Threshold PM 10 15minute average = 100µg/m³ above background***

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Tuesday, June 3, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

## DAILY FIELD REPORT

| | | | |
|---|---|---|---|
| **Date:** | Thursday, August 7, 2025 | | |
| **Site Name:** | 2nd & Washington | | |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 | | |
| **Contractor/Sub-Contractor:** | BE3 | | |
| **Weather Conditions:** | Hazy | 80 ˚F | N 8 MPH |

**Description of Work Performed:**

Arrived on site and set up upwind and downwind air monitors.

Michael Keller (DEC PM) on site.

Began Collecting surface samples starting with SS-6.

All surface samples collected.

Drilling contractor will not be able to make it so site until Monday 8/11 due to delays.

All samples labeled and packaged.

Began mobilization to 160-164 E 4th Street BCP site.

All samples delivered to lab at the end of the day.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | N/a |
| Contractor Equipment | Shovel |
| Attachments : Air Quality Data, Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Thursday, August 7, 2025 | | | | |
|---|---|---|---|---|---|
| Site Name: | 2nd & Washington | | | | |
| Upwind Data | | Downwind Data | | | Delta |
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 8/7/2025 10:45 | 3.9 | 8/7/2025 10:45 | 16.5 | 0 | 12.6 |
| 8/7/2025 11:00 | 4.6 | 8/7/2025 11:00 | 16.7 | 0 | 12.1 |
| 8/7/2025 11:15 | 3.8 | 8/7/2025 11:15 | 16.4 | 0 | 12.6 |
| 8/7/2025 11:30 | 3.4 | 8/7/2025 11:30 | 17.6 | 0 | 14.2 |
| 8/7/2025 11:45 | 2.7 | 8/7/2025 11:45 | 15.7 | 0 | 13 |
| 8/7/2025 12:00 | 2.6 | 8/7/2025 12:00 | 15.8 | 0 | 13.2 |
| 8/7/2025 12:15 | 4.4 | 8/7/2025 12:15 | 15.5 | 0 | 11.1 |
| 8/7/2025 12:30 | 3.3 | 8/7/2025 12:30 | 15.1 | 0 | 11.8 |
| ***Particulate Threshold PM 10 15minute average = 100µg/m³ above background*** | | | | | |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Thursday, August 7, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

# DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Monday, August 11, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Empire Exploration and Geology |
| **Weather Conditions:** | Sunny 80 ˚F N 10 MPH |

**Description of Work Performed:**

Arrived on site and set up upwind and downwind air monitors.

Began on RI-BH-16 and traversed in a counter clockwise direction.

Michael Keller (DEC PM) arrived on site shortly after drilling began.

Completed RI-BH-5, RI-BH-16, and STP-1 through 4. All additional soil samples now complete.

Drill rig arrived on site towards end of day. Due to having the wrong equipment, well installation will start tomorrow (8/12).

All samples packaged and brought to laboratory at the end of the day.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | N/a |
| Contractor Equipment | Geoprobe, Drill Rig. |

Attachments : Air Quality Data, Work Location Map

| | |
|---|---|
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Monday, August 11, 2025 | | | | |
|---|---|---|---|---|---|
| Site Name: | 2nd & Washington | | | | |
| Upwind Data | | Downwind Data | | | Delta |
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 8/11/2025 9:45 | | 8/11/2025 9:45 | | 0 | 0 |
| 8/11/2025 10:00 | 6.6 | 8/11/2025 10:00 | 8.2 | 0 | 1.6 |
| 8/11/2025 10:15 | 7.6 | 8/11/2025 10:15 | 10.5 | 0 | 2.9 |
| 8/11/2025 10:30 | 7.1 | 8/11/2025 10:30 | 17.7 | 0 | 10.6 |
| 8/11/2025 10:45 | 7.1 | 8/11/2025 10:45 | 8 | 0 | 0.9 |
| 8/11/2025 11:00 | 6.8 | 8/11/2025 11:00 | 9.9 | 0 | 3.1 |
| 8/11/2025 11:15 | 7.2 | 8/11/2025 11:15 | 9.3 | 0 | 2.1 |
| 8/11/2025 11:30 | 8.2 | 8/11/2025 11:30 | 8 | 0 | -0.2 |
| 8/11/2025 11:45 | 11.1 | 8/11/2025 11:45 | 8.4 | 0 | -2.7 |
| 8/11/2025 12:00 | 7.2 | 8/11/2025 12:00 | 9 | 0 | 1.8 |
| 8/11/2025 12:15 | 8.8 | 8/11/2025 12:15 | 8.3 | 0 | -0.5 |
| 8/11/2025 12:30 | 7.2 | 8/11/2025 12:30 | 9.6 | 0 | 2.4 |
| 8/11/2025 12:45 | 8.2 | 8/11/2025 12:45 | 8.1 | 0 | -0.1 |
| 8/11/2025 13:00 | 8.1 | 8/11/2025 13:00 | 8 | 0 | -0.1 |
| 8/11/2025 13:15 | 7.6 | 8/11/2025 13:15 | 9.7 | 0 | 2.1 |
| 8/11/2025 13:30 | 9.8 | 8/11/2025 13:30 | 15.2 | 0 | 5.4 |
| 8/11/2025 13:45 | 8.8 | 8/11/2025 13:45 | 8.1 | 0 | -0.7 |
| 8/11/2025 14:00 | 7.2 | 8/11/2025 14:00 | 8.1 | 0 | 0.9 |
| 8/11/2025 14:15 | 7.5 | 8/11/2025 14:15 | 8.5 | 0 | 1 |
| 8/11/2025 14:30 | 6.9 | 8/11/2025 14:30 | 9.4 | 0 | 2.5 |
| 8/11/2025 14:45 | 8.2 | 8/11/2025 14:45 | 9.8 | 0 | 1.6 |
| 8/11/2025 15:00 | 8 | 8/11/2025 15:00 | 7.6 | 0 | -0.4 |
| ***Particulate Threshold PM 10 15minute average = 100µg/m³ above background*** | | | | | |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Monday, August 11, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

# DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Tuesday, August 12, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Empire Exploration and Geology |
| **Weather Conditions:** | Partly Cloudy 80 ˚F N 8 MPH |

**Description of Work Performed:**

Arrived on site and set up upwind and downwind air monitors.

Began drilling through overburden and installing rock socket on RI-BW-2.

Michael Keller (DEC PM) arrived on site shortly after drilling began.

Rock socket set on RI-BW-2 at approximately 12:30pm. Casing will be allowed to set for at least 24 hours before coring.

Began drilling through overburden and installing rock socket on RI-BW-1. Casing set at approximately 3:30pm.

Rock socket for RI-BW-3 will begin tomorrow 8/13.

All cuttings stored on site in 55-gallon drums.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 Driller, 1 helper |
| Contractor Equipment | Drill Rig. |
| Attachments : Air Quality Data, Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## COMMUNITY AIR MONITORING PROGRAM DATA

| Date: | Tuesday, August 12, 2025 | | | | |
|---|---|---|---|---|---|
| Site Name: | 2nd & Washington | | | | |
| Upwind Data | | Downwind Data | | | Delta |
| Time | PM 10 - 15 min AVG (µg/m³) | Time | PM 10 - 15 min AVG (µg/m³) | VOC | PM 10 - 15m AVG (µg/m³) |
| 8/12/2025 8:45 | | 8/12/2025 8:45 | 8.1 | 0 | 8.1 |
| 8/12/2025 9:00 | 8.8 | 8/12/2025 9:00 | 9.7 | 0 | 0.9 |
| 8/12/2025 9:15 | 7.2 | 8/12/2025 9:15 | 8.4 | 0 | 1.2 |
| 8/12/2025 9:30 | 6.5 | 8/12/2025 9:30 | 7.1 | 0 | 0.6 |
| 8/12/2025 9:45 | 7.1 | 8/12/2025 9:45 | 7.2 | 0 | 0.1 |
| 8/12/2025 10:00 | 9.3 | 8/12/2025 10:00 | 6.6 | 0 | -2.7 |
| 8/12/2025 10:15 | 7.4 | 8/12/2025 10:15 | 6.3 | 0 | -1.1 |
| 8/12/2025 10:30 | 6.2 | 8/12/2025 10:30 | 6.2 | 0 | 0 |
| 8/12/2025 10:45 | 7.4 | 8/12/2025 10:45 | 6.7 | 0 | -0.7 |
| 8/12/2025 11:00 | 7.9 | 8/12/2025 11:00 | 7.4 | 0 | -0.5 |
| 8/12/2025 11:15 | 6.8 | 8/12/2025 11:15 | 6.4 | 0 | -0.4 |
| 8/12/2025 11:30 | 5.8 | 8/12/2025 11:30 | 5.2 | 0 | -0.6 |
| 8/12/2025 11:45 | 5.5 | 8/12/2025 11:45 | 5.1 | 0 | -0.4 |
| 8/12/2025 12:00 | 7 | 8/12/2025 12:00 | 6.7 | 0 | -0.3 |
| 8/12/2025 12:15 | 7.1 | 8/12/2025 12:15 | 6 | 0 | -1.1 |
| 8/12/2025 12:30 | 8.1 | 8/12/2025 12:30 | 6.7 | 0 | -1.4 |
| 8/12/2025 12:45 | 6.8 | 8/12/2025 12:45 | 6.8 | 0 | 0 |
| 8/12/2025 13:00 | 6.7 | 8/12/2025 13:00 | 6.8 | 0 | 0.1 |
| 8/12/2025 13:15 | 6.5 | 8/12/2025 13:15 | 6.2 | 0 | -0.3 |
| 8/12/2025 13:30 | 6.3 | 8/12/2025 13:30 | 5.5 | 0 | -0.8 |
| 8/12/2025 13:45 | 9.1 | 8/12/2025 13:45 | 6.2 | 0 | -2.9 |
| 8/12/2025 14:00 | 5.4 | 8/12/2025 14:00 | 5.3 | 0 | -0.1 |
| 8/12/2025 14:15 | 6.1 | 8/12/2025 14:15 | 5.1 | 0 | -1 |
| 8/12/2025 14:30 | 4.5 | 8/12/2025 14:30 | 5.6 | 0 | 1.1 |
| 8/12/2025 14:45 | 4.6 | 8/12/2025 14:45 | 5.1 | 0 | 0.5 |
| 8/12/2025 15:00 | 5 | 8/12/2025 15:00 | 5.2 | 0 | 0.2 |
| ***Particulate Threshold PM 10 15minute average = 100µg/m³ above background*** | | | | | |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Tuesday, August 12, 2025 |
| Site Name: | 2nd & Washington |


| Legend | |
|---|---|
| UW | Upwind Air Monitor Location |
| DW | Downtown Air Monitor Location |
| | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

# DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Wednesday, August 13, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Empire Exploration and Geology |
| **Weather Conditions:** | Cloudy, rainy 75 ˚F S 11 MPH |

**Description of Work Performed:**

No CAMP set up due to rainy conditions during first half of the day and use of water during drilling the remainder of the day

Began drilling through overburden and installing rock socket on RI-BW-3. Casing set around 12:00pm

Set up for coring on RI-BW-2. Drillers had to buy equipment from home depot.

DEC PM Michael Keller arrived on site shortly before coring began.

RI-BW-2 installed at 21.8' bgs with 10' PVC screen.

Approximately 200 gallons of drilling water was lost during construction.

End of day spent cleaning equipment and preparing for tomorrow 8/14.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 Driller, 1 helper |
| Contractor Equipment | Drill Rig. |
| Attachments : Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Wednesday, August 13, 2025 |
| Site Name: | 2nd & Washington |

| Legend | |
|---|---|
| ⊕ | Bedrock Well Location |
| ▭ | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

## DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Thursday, August 14, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | Empire Exploration and Geology |
| **Weather Conditions:** | Sunny 78 ˚F S 8 MPH |

**Description of Work Performed:**

No CAMP set up due to use of water during drilling.

Checked water levels in RI-BW-2, approximately 4 feet of water present in the well.

Began coring RI-BW-1.

DEC PM Michael Keller arrived on site shortly after coring began.

Unstable rock began caving in the borehole after the well was drilled to 21.2' bgs. Driller was able to clear out loose rock with hollow stem auger and roller bit and install PVC screen.

John Boyd, P.G. arrived on site and began coring logs for both RI-BW-2 and RI-BW-3.

Started coring RI-BW-3 at approximately 1:00pm. Well set at a final depth of 24.10' bgs.

Total drilling water lost for RI-BW-1 and RI-BW-2 respectively was 180 and 120 gallons respectively.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 1 Driller, 1 helper |
| Contractor Equipment | Drill Rig. |
| Attachments : Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Thursday, August 14, 2025 |
| Site Name: | 2nd & Washington |

| Legend | |
|---|---|
| ⊕ | Bedrock Well Location |
| ▭ | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

# DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Friday, August 15, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | BE3 |
| **Weather Conditions:** | Sunny 82 ˚F N 8 MPH |

**Description of Work Performed:**

No CAMP set up due to lack of soil disturbing activates.

Began developing RI-BW-1 and RI-BW-2 and taking periodic water quality readings.

RI-BW-2 was pumped dry repeatedly and found to have a very slow recharge rate.

RI-BW-1 had a fast recharge and was not pumped dry during development.

At the end of the day approximately 165 and 10-gallons were removed from RI-BW-1 and RI-BW-2 respectively.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 2 laborers |
| Contractor Equipment | 2 Peristaltic Pumps, 1 Mini monsoon 12v down well pump, 2 water quality meters |
| Attachments : Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Friday, August 15, 2025 |
| Site Name: | 2nd & Washington |

| Legend | |
|---|---|
| ⊕ | Bedrock Well Location |
| ▭ | BCP Site Boundary |

960 Busti Ave.
Buffalo, New York 14213

# DAILY FIELD REPORT

| | |
|---|---|
| **Date:** | Monday, August 18, 2025 |
| **Site Name:** | 2nd & Washington |
| **Location:** | 211 Park Avenue, Dunkirk NY, 14048 |
| **Contractor/Sub-Contractor:** | BE3 |
| **Weather Conditions:** | Sunny 75 ˚F N 4 MPH |

**Description of Work Performed:**

No CAMP set up due to lack of soil disturbing activates.

Began developing RI-BW-2, RI-BW-3, and purging RI-MW-2 and taking periodic water quality readings.

RI-BW-2 was pumped dry repeatedly throughout the day due to slow recharge rate.

RI-BW-3 and RI-MW-2 were found to have sufficient recharge.

Proper flow rate was established and RI-BW-3 was able to be pumped continuously.

RI-MW-2 and RI-BW-3 were able to be sampled after sufficient volumes were removed and water quality parameters stabilized.

MS/MSD sample was taken from RI-MW-2.

After sampling RI-BW-3 and RI-MW-2, RI-BW-1 was purged and sampled.

At current flow rate for RI-BW-2, it would take approximately 20 additional business days to remove required drill water. It was decided that RI-BW-2 would be sampled as is to see the impact of not removing 100% of the required water.

In total across 8/15 and today 8/18: 220-gallons removed from RI-BW-1, 138-gallons removed from RI-BW-3 and 20-gallons were removed from RI-BW-2.

Samples were taken from RI-BW-1 through 3 and RI-MW-2, packaged, and dropped off at the lab at the end of the day.

| | |
|---|---|
| Problems/Observations: | |
| Health and Safety Concerns: | None. |
| Contractor Work Force: | 2 laborers |
| Contractor Equipment | 2 Peristaltic Pumps, 1 Mini monsoon 12v down well pump, 2 water quality meters |
| Attachments : Work Location Map | |
| Inspectors Name | Paul Staub |

960 Busti Ave.
Buffalo, New York 14213

## WORK LOCATION MAP

| | |
|---|---|
| Date: | Monday, August 18, 2025 |
| Site Name: | 2nd & Washington |

| Legend | |
|---|---|
| | Overburden Well Location |
| | Bedrock Well Location |
| | BCP Site Boundary |

# Appendix B

# Site Photographs

1. RI-VP-5

2. RI-VP-6

BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

3. RI-VP-2

4. RI-VP-1


5. RI-VP-4

6. RI-BH-9

7. RI-BH-7


8. RI-BH-13

9. RI-BH-15 Cores

10. RI-BH-15 Cores

11. RI-MW-3

12. RI-MW-2

13. RI-MW-5

14. RI-MW-4


15. RI-MW-1

16. RI-VP-3

17. RI-BH-1

18. RI-BH-1 Cores

19. RI-BH-2 Cores

20. RI-BW-2

21. RI-BW-3

22. RI-BW-2 Bedrock cores

23. RI-BW-3 Top half of bedrock cores

24. RI-BW-3 Bottom half of bedrock cores

25. RI-BW-1 Bedrock cores

# Appendix C

# Soil Boring Logs

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-1

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: TN

DATE STARTED: 6/3/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–5 | RI-BH-1 Fill | 0 | FILL; brown clayey silt | |
| 5–6 | | 0 | NATIVE; grey brown clay | native @ 5' |
| 6–9 | RI-BH-1 Native | 0 | NATIVE; wet grey brown clay | |
| 10 | | | | refusal @ 10' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-2

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: TN

DATE STARTED: 6/3/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0 | | | Concrete | |
| 1 | RI-BH-2 Fill | 0 | FILL; black loose sand | |
| 4 | | | | native @ 4' |
| 5 | RI-BH-2 Native | 0 | NATIVE; stiff grey brown clay | |
| 10 | | | | refusal @ 10' |
| 14 | | | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-3

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0 | | | Concrete | |
| 1 | RI-BH-3 Fill | 0 | FILL; black silty sand, some brick | |
| 4 | | | | native @ 4' |
| 5 | | 0 | NATIVE; stiff grey brown clay | |
| 8 | | | | |
| 9 | | 0 | NATIVE; soft moist grey brown clay | |
| 10 | | | | |
| 11 | | 0 | NATIVE; wet light brown sand | |
| 13 | | | | refusal @ 13' |
| 14 | | | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-4

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0 | | | Concrete | |
| 1 | RI-BH-4 Fill | 0 | FILL; black silty sand, some brick | |
| 5 | | | | native @ 5' |
| 6 | RI-BH-4 MS/MSD | 0 | NATIVE; stiff grey brown clay | collected MS/MSD |
| 10 | | | | refusal @ 10' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-5

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–4 | RI-BH-5 | 0 | FILL; black sandy silt, some brick | |
| 5 | | | | native @ 5' |
| 5–10 | | 0 | NATIVE; grey brown clay | |

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-6

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-6 Fill | 0 | FILL; black silty sand, trace brick and debrsi | |
| 5 | | | | native @ 5' |
| 6–9 | RI-BH-6 Native | 0 | NATIVE; stiff grey brown clay | |
| 11 | | | | refusal @ 11' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-7

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-7 Fill | 0 | FILL; black silty sand, trace debris | native @ '5 |
| 3–10 | RI-BH-7 Native | 0 | NATIVE; moist soft grey brown clay | |
| 10–14 | | 0 | NATIVE; wet soft grey brown clay | |

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 15 | | | | refusal @ 15' |
| 16 | | | | |
| 17 | | | | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-8

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: TN

DATE STARTED: 6/3/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–4 | RI-BH-8 Fill | 0 | FILL; black silty sand, trace wood | |
| 4–6 | RI-BH-8 Native | 0 | NATIVE; grey brown clay | native @ 4'<br>refusal @ 6' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-9

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-9 Fill | 0 | FILL; dark brown sandy loose fill | |
| 5 | | | | native @ 5' |
| 6–10 | RI-BH-9 Native | 0 | NATIVE; stiff grey brown clay | |
| 7–10 | | 0 | NATIVE; wet grey brown clay | |
| 10 | | | | refusal @ 10' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-10

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-10 Fill | 0 | FILL; brown clayey silt, trace debris and brick | |
| 4 | | | | native @ 4' |
| 5–7 | RI-BH-10 Native + MS/MSD | 0 | NATIVE; stiff grey brown clay | collected MS/MSD |
| 8 | | 0 | NATIVE; wet grey brown clay | |
| 9 | | | | refusal @ 9' |
| 10–14 | | | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-11

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-11 Fill | 0 | FILL; light brown sandy clay | |
| 3 | | | | native @ 3' |
| 3–7 | RI-BH-11 Native | 0 | NATIVE; stiff grey brown clay | |
| 7–9 | | 0 | NATIVE; wet grey brown clay | |
| 9 | | | | refusal @ 9' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-12

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–4 | RI-BH-12 Fill | 0 | FILL; loose brown sandy clay, trace brick and ceramics | |
| 4 | | | | native @ 4' |
| 5–7 | RI-BH-12 Native | 0 | NATIVE; moist soft grey brown clay | |
| 10 | | | | refusal @ 10 |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-13

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–4 | RI-BH-13 Fill | 0 | FILL; black sandy silt, some brick | |
| 4–5 | | | | native @ 4' |
| 5–7 | RI-BH-13 Native | 0 | NATIVE; stiff grey brown clay | |
| 7–11 | | 0 | NAITVE; soft wet grey brown clay | |
| 11 | | | | refusal @ 11' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-14

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0 | | | Asphalt | |
| 1 | RI-BH-14 Fill | 0 | FILL; loose black sandy silt, some grey rocks | |
| 2 | | | | |
| 3 | | | | native @ 3' |
| 4 | RI-BH-14 Native | 0 | NAITVE; stiff tight grey brown clay | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | refusal @ 7' |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-15

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-15 Fill | 0 | FILL; black silty sand, trace organics and brick | |
| 3–4 | | | | native @ 3.5' |
| 4–7 | RI-BH-15 Native | 0 | NATIVE; stiff grey brown clay | |
| 7–9 | | | NATIVE; wet grey brown clay | |
| 9 | | | | refusal @ 9' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-BH-16

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-BH-16 | 0 | FILL; loose brown sandy clay, trace brick and ceramics | |
| 6–7 | | 0 | NATIVE; moist grey brown clay | native @ 6' |
| 8–9 | | 0 | NATIVE; grey brown clay | |

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-MW-1

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–5 | | 0 | FILL; black loose sand | |
| 5–7 | | 0 | NATIVE; grey brown clay | native @ 5' |
| 7–11 | RI-MW-1 | 0 | NATIVE; moist grey brown clay | screen installed 7-12' |
| 11–13 | | 0 | | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-MW-2

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | | 0 | FILL; black silty sand, trace brick and debrsi | |
| 5 | | | | native @ 5' |
| 7 | | 0 | NATIVE; stiff brown clay | collected DUP |
| 9–11 | RI-MW-2 + DUP | 0 | NATIVE; wet clayey sand | |
| 12 | | | | screen installed 8-13' |
| 13 | | | NATIVE; shale | |
| 13.5 | | | | refusal @ 13.5' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-MW-3

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | | 0 | FILL; black sandy silt, grey rocks | |
| 3–9 | RI-MW-3 + DUP | 0 | NATIVE; stiff grey brown clay | native @ 3', collected dup<br>screen installed 3-8' |
| 9–10 | | 0 | NATIVE; wet soft grey brown clay | refusal @ 10' |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-MW-4

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-MW-4 | 0 | FILL; black sandy silt, trace brick | |
| 3–4 | RI-MW-4 | 0 | NATIVE; stiff grey brown clay | native @ 3' |
| 4–8 | RI-MW-4 | 0 | NATIVE; wet grey brown clay | |
| 8–10 | RI-MW-4 | 0 | NATIVE; wet light brown sand | screen installed 3-8'<br>refusal @ 10' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: RI-MW-5

DRILLING CONTRACTOR: Sessler Environmental Services

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 5/30/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–3 | RI-MW-5 | 0 | FILL - black loose sand | |
| 3–7 | RI-MW-5 | 0 | NATIVE; stiff grey brown clay | native @ 3' |
| 7–10 | RI-MW-5 | 0 | NATIVE; wet grey brown clay | screen installed 3-8'; refusal @ 10' |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-1 E

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-1 E | 0 | FILL; black sandy silt, some brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-1 N

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-1 N | 0 | FILL; black sandy silt, some brick | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-1 S

DRILLING CONTRACTOR: Empire Exploration and Geology

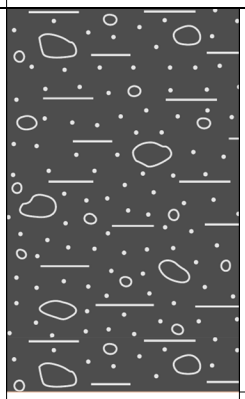
DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP1- S | 0 |  FILL; black sandy silt, some brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-1 W

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-1 W | 0 | FILL; loose brown sandy clay | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-2 E

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-2 E | 0 | FILL; black sandy silt, trace brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-2 N

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-2 N | 0 | FILL; black sandy silt, trace brick | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-2 S

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-2 S | 0 | FILL; loose brown sandy clay | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-2 W

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-2 W | 0 | FILL; black sandy silt, some glass | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-3 E

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-3 E | 0 | FILL - black loose sand | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-3 N

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-3 N | 0 | FILL; black sandy silt, some brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-3 S

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-3 S | 0 | FILL; loose brown sandy clay, trace debris | |

PROJECT:
2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-3 W

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-3 W | 0 | FILL; black sandy silt, some brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-4 E

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-4 E | 0 | FILL; brown clayey silt | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-4 N

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-4 N | 0 | FILL; brown clayey silt, trace debris and brick | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-4 S

DRILLING CONTRACTOR: Empire Exploration and Geology

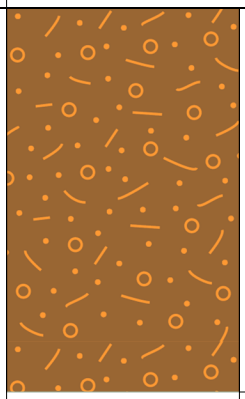
DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-4 S | 0 |  FILL; brown clayey silt | |

PROJECT: 2nd & Washington Remedial Investigation

# BORING LOG

BORING LOCATION: STP-4 W

DRILLING CONTRACTOR: Empire Exploration and Geology

DRILLING METHOD: Direct Push

EXCAVATION EQUIPMENT: Geoprobe Model 7720DT

LOGGED BY: PS

DATE STARTED: 8/11/2025

BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Sample | PID Reading | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| 0–2 | STP-4 W | 0 | FILL; brown clayey silt, trace ceramics and brick | |

# Appendix D

# Bedrock Well Boring Logs- Overburden/Bedrock Well Construction Logs

PROJECT:
Block of Washington, East 2nd and Park RI

# BEDROCK LOG

BORING LOCATION: RI-BW-1

DRILLING CONTRACTOR: Empire Geo Exploration

DRILLING METHOD: Hollow Stem Auger

EXCAVATION EQUIPMENT: CME 550 X ATV Rig

LOGGED BY: JB

DATE STARTED: 8/14/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Run | Rec. (%) | RQD (%) | PID Reading | DESCRIPTION |
|---|---|---|---|---|---|
| 0–9 | | | | 0 | Overburden |
| 9–12 | | | | 0 | Rock socket |
| 12–17 | 1 | 50 | 40 | 0 | Thinly banded medium gray shale; hard; intensely fractured into coarse gravel-sized pieces; natural fractures<br>Same lithology; natural fractures<br>Same lithology; slightly fractured; mechanical fractures |
| 17–20 | 2 | 100 | 100 | 0 | Same lithology; moderately – slightly fractured; mechanical fractures |

PHOTOGRAPHY

PROJECT:
Block of Washington, East 2nd and Park RI

# BEDROCK LOG

BORING LOCATION: RI-BW-2

DRILLING CONTRACTOR: Empire Geo Exploration

DRILLING METHOD: Hollow Stem Auger

EXCAVATION EQUIPMENT: CME 550 X ATV Rig

LOGGED BY: JB

DATE STARTED: 8/14/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Run | Rec. (%) | RQD (%) | PID Reading | DESCRIPTION |
|---|---|---|---|---|---|
| 0–13 | | | | 0 | Overburden |
| 13–16 | | | | 0 | Rock socket |
| 16–19 | 1 | 87 | 70 | 0 | Thinly banded, medium gray shale; hard; numerous mechanical fractures |
| 19–20 | | | | 0 | Same lithology; several natural fractures |
| 20–22 | 2 | 99 | 84 | 0 | Same lithology; all mechanical fractures |

PHOTOGRAPHY

PROJECT:
Block of Washington, East 2nd and Park RI

# BEDROCK LOG

BORING LOCATION: RI-BW-3

DRILLING CONTRACTOR: Empire Geo Exploration

DRILLING METHOD: Hollow Stem Auger

EXCAVATION EQUIPMENT: CME 550 X ATV Rig

LOGGED BY: JB

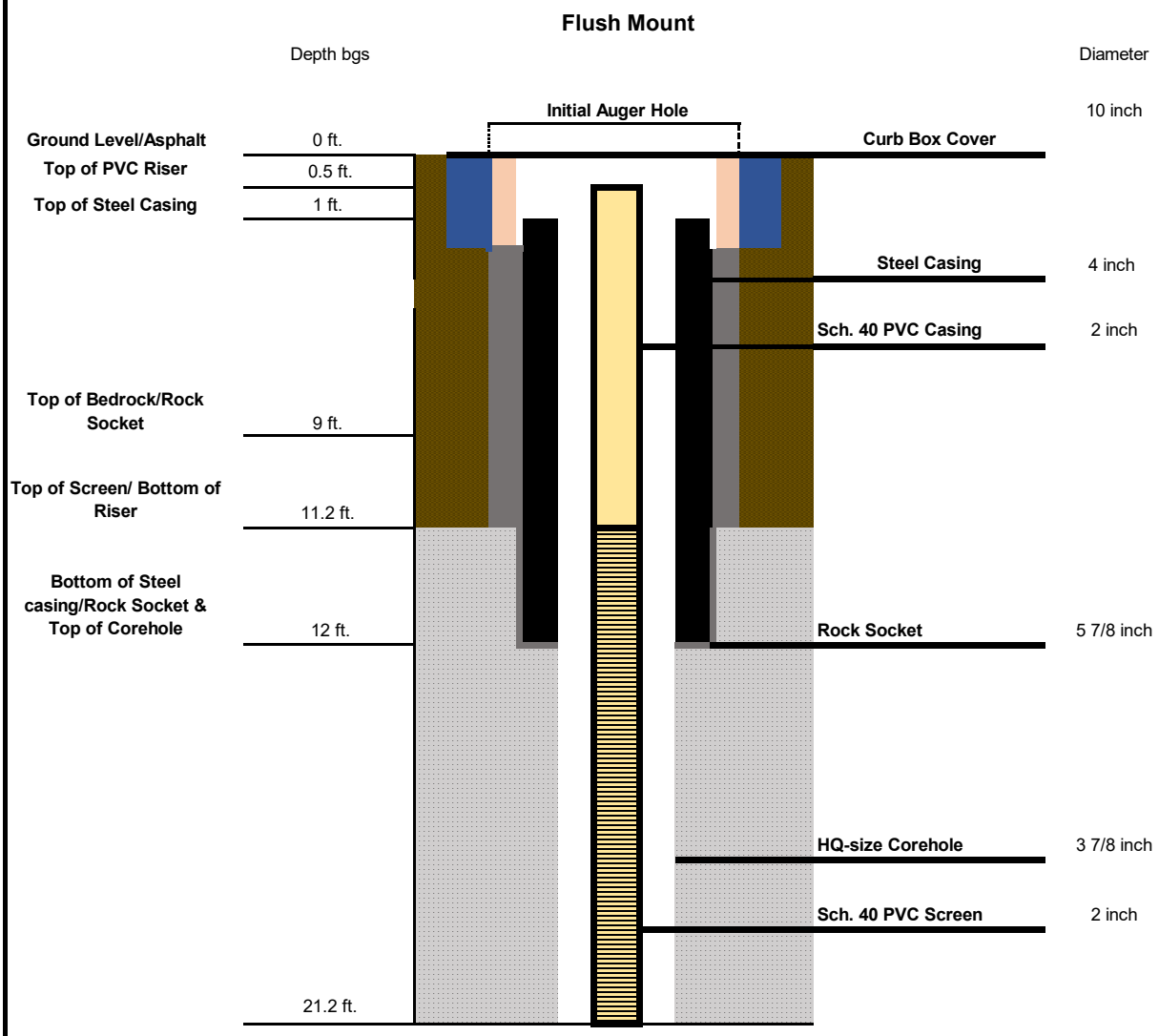
DATE STARTED: 8/14/2025

BRYDGES ENGINEERING
IN ENVIRONMENT AND ENERGY, DPC

| DEPTH (feet) | Run | Rec. (%) | RQD (%) | PID Reading | DESCRIPTION |
|---|---|---|---|---|---|
| 0–12 | | | | 0 | Overburden |
| 13–15 | | | | 0 | Rock socket |
| 16–20 | 1 | 100 | 100 | 0 | Thinly banded, medium gray shale; hard; moderately - slightly fractured; no natural fractures observed |
| 21–24 | 2 | 100 | 100 | 0 | Same lithology and fracturing |

PHOTOGRAPHY

# MONITORING WELL CONSTRUCTION LOG




| DRILLING SUMMARY | | COMMENTS |
|---|---|---|
| **Geologist:** | John Boyd | 1. The well was not sand packed therefore the white spacing on either side of the PVC riser and screen represents void space. |
| **Contractor:** | Empire Exploration and Geology | 2. The steel casing was positioned 3 feet into bedrock. |
| **Operator:** | Jason Tadarski | 3. All depths are measured from ground surface. |
| **Model:** | CME 550 X ATV Drilling Rig | 4. No filter material was utilized. |
| **Date:** | 8/14/2025 | |

## WELL DESIGN

| SCREEN MATERIAL | | SEAL MATERIAL | | CASING MATERIAL | |
|---|---|---|---|---|---|
| **Type:** | 2" Schedule 40 PVC | **Type 1:** | Grout | **0-12' bgs:** | 4" ⌀ Steel casing (Flush Mount) |
| **Slot Size:** | 0.010" | **Setting:** | Surrounding steel casing | **Monitor:** | 2" Schedule 40 PVC |
| **Setting:** | 11.2' - 21.2' bgs | **Type 2:** | Concrete | | |
| | | **Setting:** | Surrounding curb box | | |

## LEGEND

Concrete | Steel Casing | PVC Riser Pipe | PVC Screen

Cement Grout | Overburden | Bedrock | Curb Box

*Prepared for Regan Development Corp.*

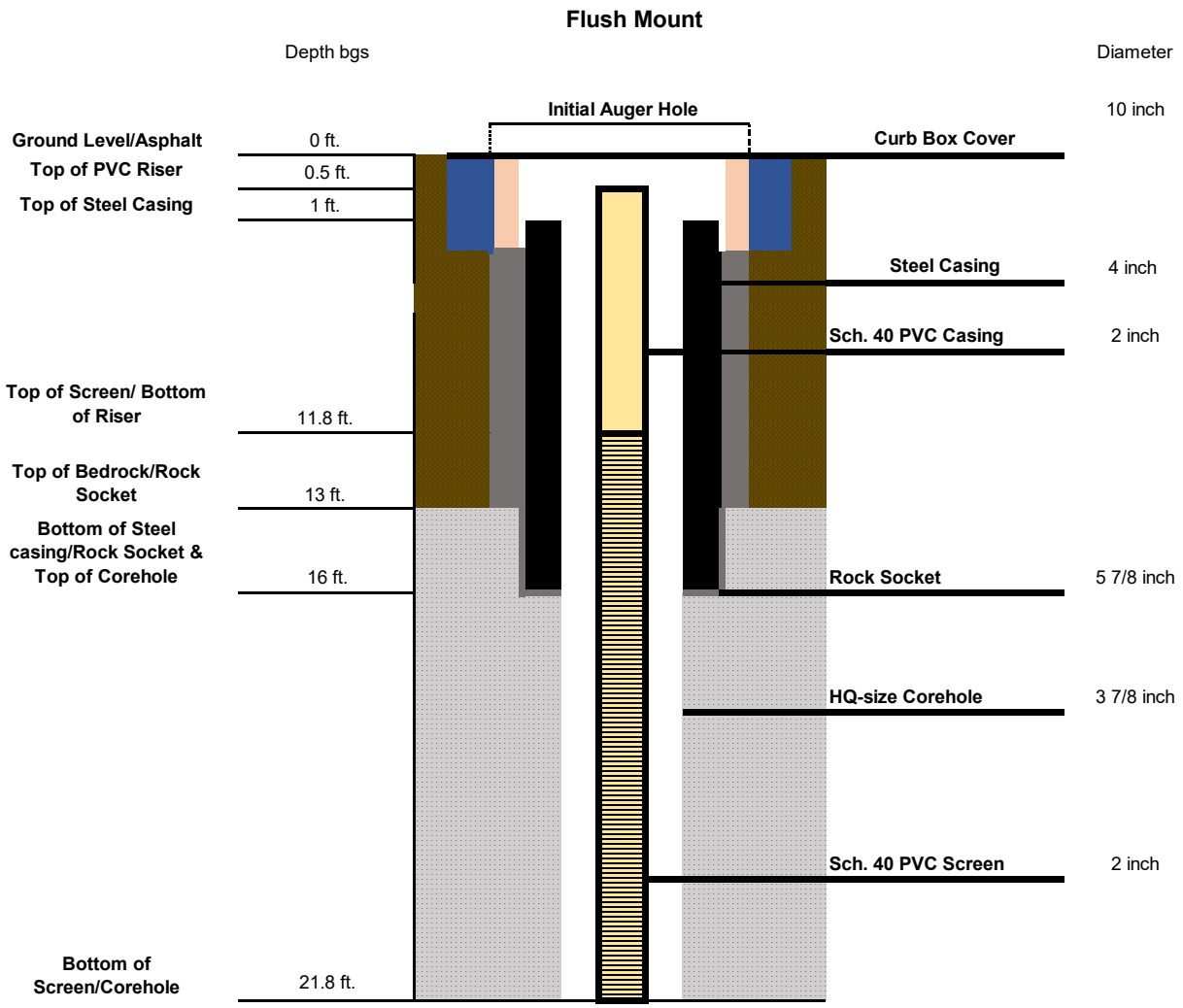
BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

Dunkirk Homesteads
Block of Washington, E. 2nd, and Park
Buffalo, Erie County, New York
NYSDEC BCP Site No. 907042

**Well ID: RI-BW-1**

Q:/Exchange/Montroy/bedrock well construction logs/BW-1 new-9/4/2025-1:39 PM

# MONITORING WELL CONSTRUCTION LOG




| DRILLING SUMMARY | |
|---|---|
| **Geologist:** | John Boyd |
| **Contractor:** | Empire Exploration and Geology |
| **Operator:** | Jason Tadarski |
| **Model:** | CME 550 X ATV Drilling Rig |
| **Date:** | 8/13/2025 |

**COMMENTS**

1. The well was not sand packed therefore the white spacing on either side of the PVC riser and screen represents void space.
2. The steel casing was positioned 3 feet into bedrock.
3. All depths are measured from ground surface.
4. No filter material was utilized.

**WELL DESIGN**

| SCREEN MATERIAL | | SEAL MATERIAL | | CASING MATERIAL | |
|---|---|---|---|---|---|
| **Type:** | 2" Schedule 40 PVC | **Type 1:** | Grout | **0-16' bgs:** | 4" ⌀ Steel casing (Flush Mount) |
| **Slot Size:** | 0.010" | **Setting:** | Surrounding steel casing | **Monitor:** | 2" Schedule 40 PVC |
| **Setting:** | 11.8' - 21.8' bgs | **Type 2:** | Concrete | | |
| | | **Setting:** | Surrounding curb box | | |

**LEGEND**

Concrete | Steel Casing | PVC Riser Pipe | PVC Screen

Cement Grout | Overburden | Bedrock | Curb Box

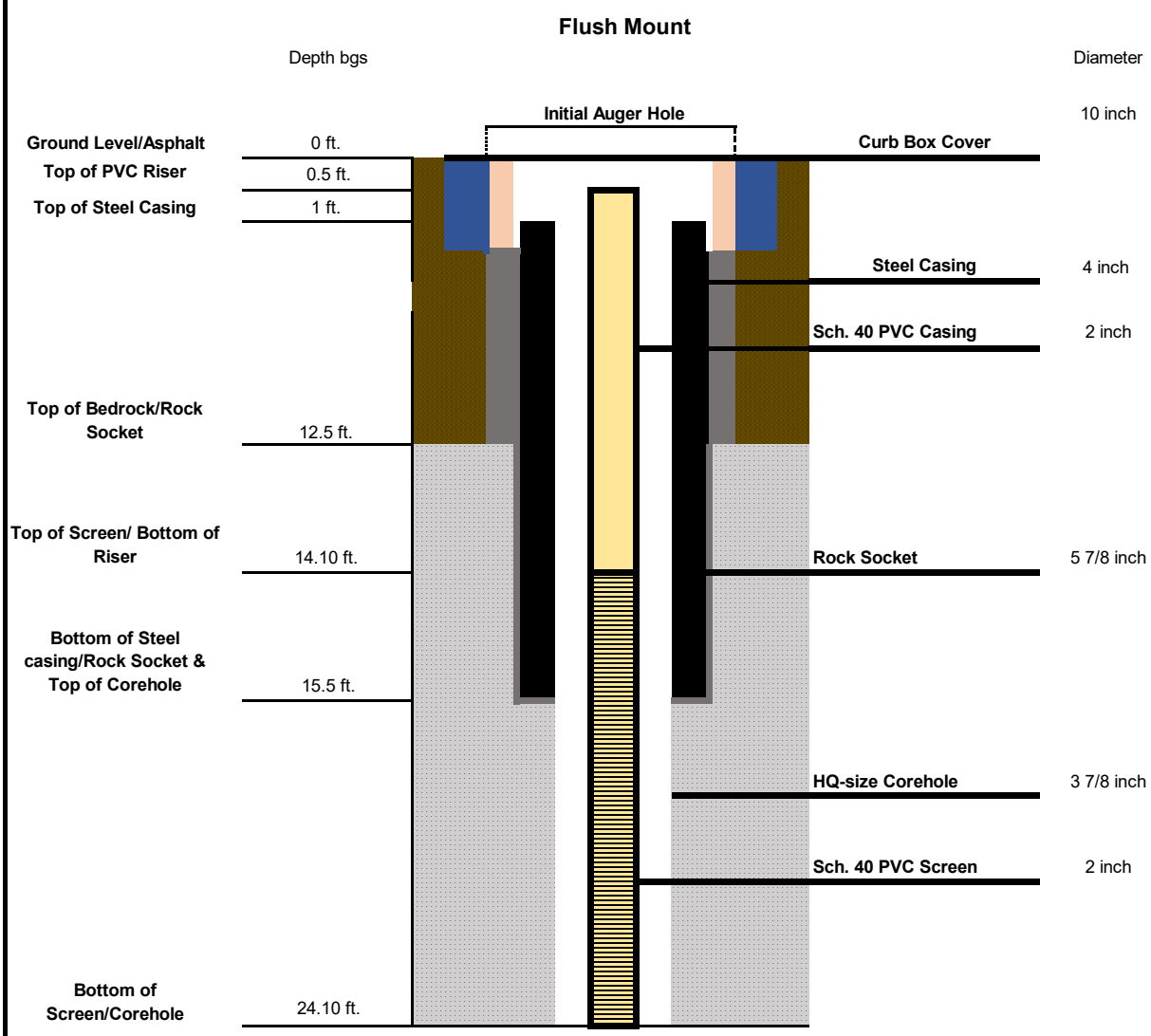
*Prepared for Regan Development Corp.*

BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

Dunkirk Homesteads
Block of Washington, E. 2nd, and Park
Buffalo, Erie County, New York
NYSDEC BCP Site No. 907042

**Well ID: RI-BW-2**

# MONITORING WELL CONSTRUCTION LOG




| DRILLING SUMMARY | |
|---|---|
| **Geologist:** | Tim Burmeier |
| **Contractor:** | Empire Exploration and Geology |
| **Operator:** | Jason Tadarski |
| **Model:** | CME 550 X ATV Drilling Rig |
| **Date:** | 8/13/2025 |

**COMMENTS**

1. The well was not sand packed therefore the white spacing on either side of the PVC riser and screen represents void space.
2. The steel casing was positioned 3 feet into bedrock.
3. All depths are measured from ground surface.
4. No filter material was utilized.

**WELL DESIGN**

| SCREEN MATERIAL | | SEAL MATERIAL | | CASING MATERIAL | |
|---|---|---|---|---|---|
| **Type:** | 2" Schedule 40 PVC | **Type 1:** | Grout | **0-15.5' bgs:** | 4" ⌀ Steel casing (Flush Mount) |
| **Slot Size:** | 0.010" | **Setting:** | Surrounding steel casing | **Monitor:** | 2" Schedule 40 PVC |
| **Setting:** | 14.10' - 24.10' bgs | **Type 2:** | Concrete | | |
| | | **Setting:** | Surrounding curb box | | |

**LEGEND**

Concrete | Steel Casing | PVC Riser Pipe | PVC Screen

Cement Grout | Overburden | Bedrock | Curb Box

*Prepared for Regan Development Corp.*

BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

Dunkirk Homesteads
Block of Washington, E. 2nd, and Park
Buffalo, Erie County, New York
NYSDEC BCP Site No. 907042

# Well ID: RI-BW-3

Q:/Exchange/Montroy/bedrock well construction logs/BW-3 new -9/4/2025-1:40 PM

## DRILLING SUMMARY

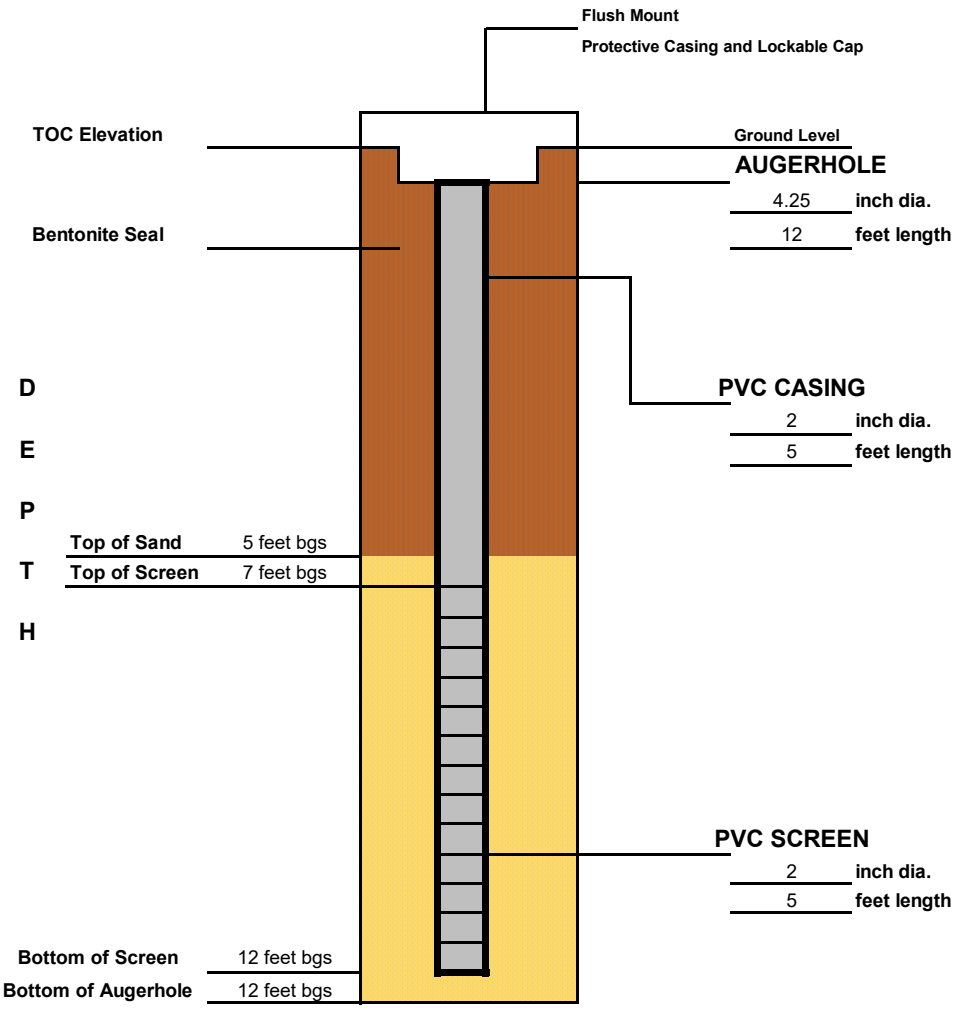
**Geologist/Technician:** Travis Numan

**Drilling Company:** Sessler

**Driller:** Chris

**Rig Make/Model:** 6011DT Rotary Drill

**Date:** 6/2/2025




## WELL DESIGN

| *CASING MATERIAL* | *SCREEN MATERIAL* | *FILTER MATERIAL* |
|---|---|---|
| **Surface:** Steel grade box | **Type:** 2" PVC | **Type:** #0 Sand |
| | **Slot Size:** .010" | **Setting:** 7 to 12 feet bgs |
| **Monitor:** N/A | **Setting:** 7 to 12 feet bgs | ***SEAL MATERIAL*** |
| | | **Type:** Bentonite Chips |
| | | **Setting:** 0 to 7 feet bgs |

***COMMENTS:***

Well installed approximately 3' above suspected bedrock/refusal.

***LEGEND***

- Bentonite Seal
- Silica Sandpack
- PVC Casing
- PVC Screen

| | | |
|---|---|---|
| **Client: Regan** | **Location: Washington, Park, E. Second** | **Project No.: C907042** |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number: RI-MW-1** |

## DRILLING SUMMARY

**Geologist/Technician:** Travis Numan

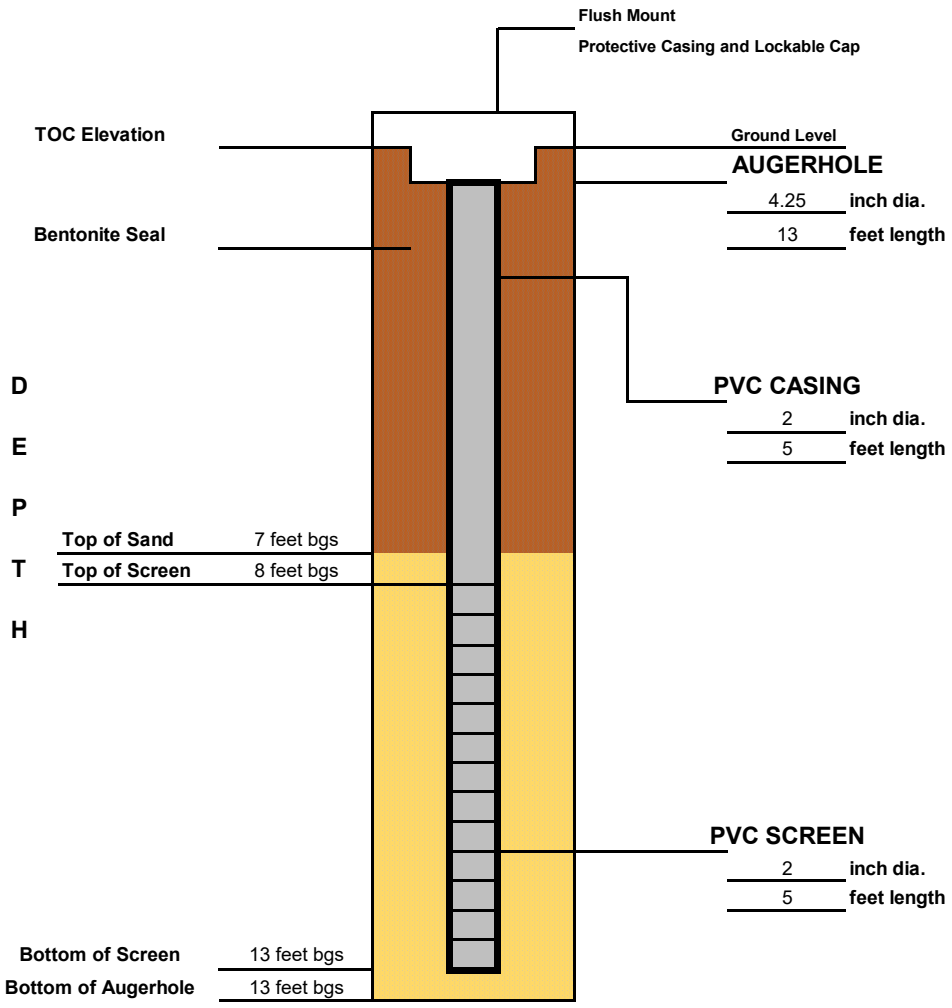
**Drilling Company:** Sessler

**Driller:** Chris

**Rig Make/Model:** 6011DT Rotary Drill

**Date:** 6/2/2025

## GEOLOGIC LOG




## WELL DESIGN

| *CASING MATERIAL* | *SCREEN MATERIAL* | *FILTER MATERIAL* |
|---|---|---|
| **Surface:** Steel grade box | **Type:** 2" PVC | **Type:** #0 Sand |
| | **Slot Size:** .010" | **Setting:** 7 to 13 feet bgs |
| **Monitor:** N/A | **Setting:** 8 to 13 feet bgs | ***SEAL MATERIAL*** |
| | | **Type:** Bentonite Chips |
| | | **Setting:** 0 to 7 feet bgs |

***COMMENTS:***

Well installed approximately 0.5' above suspected bedrock/refusal.

***LEGEND***

- Bentonite Seal
- Silica Sandpack
- PVC Casing
- PVC Screen

| | | |
|---|---|---|
| **Client: Regan** | **Location: Washington, Park, E. Second** | **Project No.: C907042** |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number: RI-MW-2** |

## DRILLING SUMMARY

**Geologist/Technician:** Travis Numan

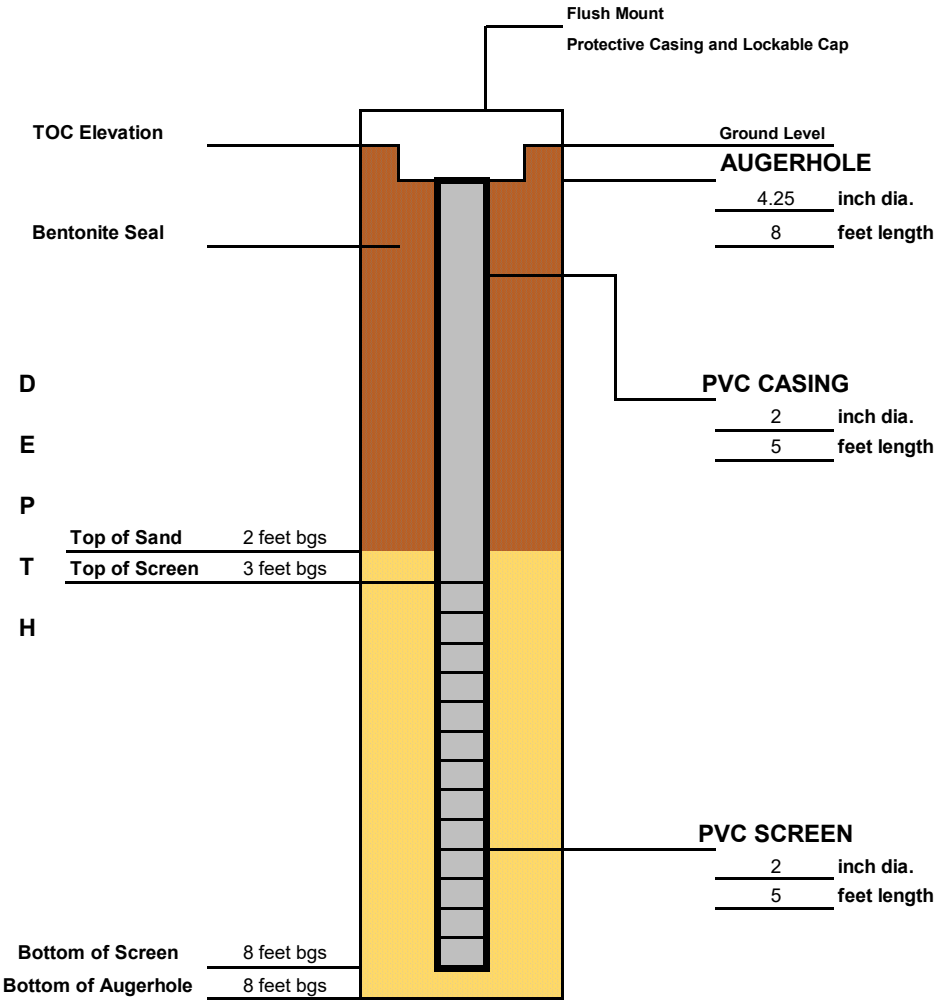
**Drilling Company:** Sessler

**Driller:** Chris

**Rig Make/Model:** 6011DT Rotary Drill

**Date:** 6/2/2025

## GEOLOGIC LOG




## WELL DESIGN

| *CASING MATERIAL* | *SCREEN MATERIAL* | *FILTER MATERIAL* |
|---|---|---|
| **Surface:** Steel grade box | **Type:** 2" PVC | **Type:** #0 Sand<br>**Setting:** 2 to 8 feet bgs |
| **Monitor:** N/A | **Slot Size:** .010" | ***SEAL MATERIAL***<br>**Type:** Bentonite Chips<br>**Setting:** 0 to 2 feet bgs |
| | **Setting:** 3 to 8 feet bgs | |

***COMMENTS:***

Well installed approximately 2' above suspected bedrock/refusal.

***LEGEND***

- Bentonite Seal
- Silica Sandpack
- PVC Casing
- PVC Screen

| | | |
|---|---|---|
| **Client: Regan** | **Location: Washington, Park, E. Second** | **Project No.: C907042** |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number: RI-MW-3** |

## DRILLING SUMMARY

**Geologist/Technician:** Travis Numan

**Drilling Company:** Sessler

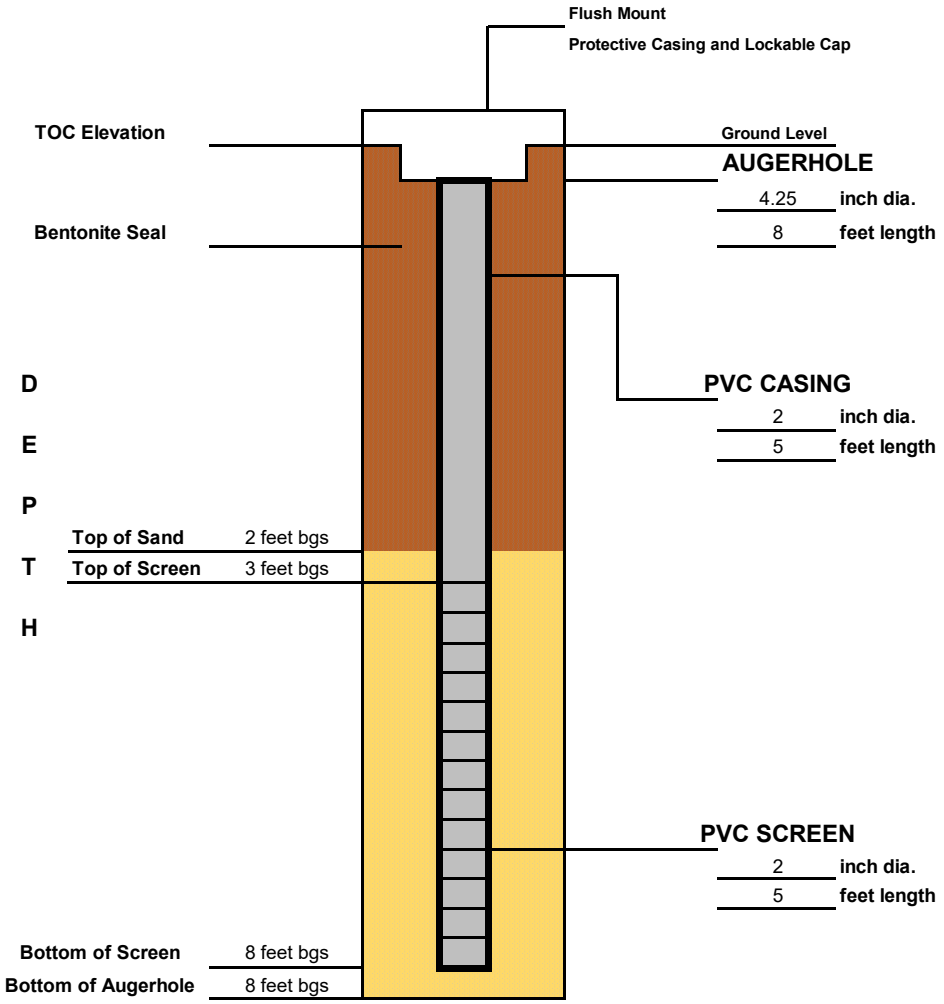
**Driller:** Chris

**Rig Make/Model:** 6011DT Rotary Drill

**Date:** 6/2/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | See RI-MW-4 Soil Boring |




## WELL DESIGN

| *CASING MATERIAL* | *SCREEN MATERIAL* | *FILTER MATERIAL* |
|---|---|---|
| **Surface:** Steel grade box | **Type:** 2" PVC | **Type:** #0 Sand |
| | **Slot Size:** .010" | **Setting:** 2 to 8 feet bgs |
| **Monitor:** N/A | **Setting:** 3 to 8 feet bgs | ***SEAL MATERIAL*** |
| | | **Type:** Bentonite Chips |
| | | **Setting:** 0 to 2 feet bgs |

***COMMENTS:***

Well installed approximately 2' above suspected bedrock/refusal.

***LEGEND***

- Bentonite Seal
- Silica Sandpack
- PVC Casing
- PVC Screen

| | | |
|---|---|---|
| **Client: Regan** | **Location: Washington, Park, E. Second** | **Project No.: C907042** |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number: RI-MW-4** |

## DRILLING SUMMARY

**Geologist/Technician:** Travis Numan

**Drilling Company:** Sessler

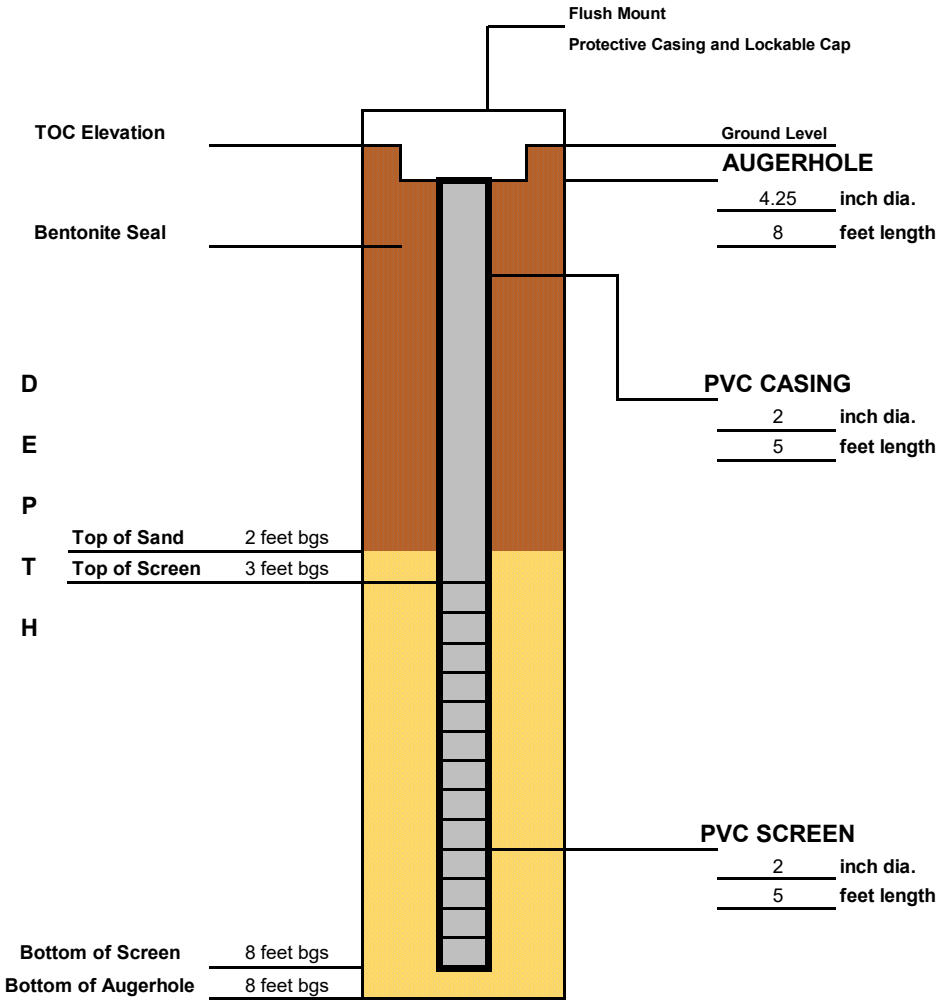
**Driller:** Chris

**Rig Make/Model:** 6011DT Rotary Drill

**Date:** 6/2/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | See RI-MW-5 Soil Boring |




## WELL DESIGN

| *CASING MATERIAL* | *SCREEN MATERIAL* | *FILTER MATERIAL* |
|---|---|---|
| **Surface:** Steel grade box | **Type:** 2" PVC | **Type:** #0 Sand |
| | **Slot Size:** .010" | **Setting:** 2 to 8 feet bgs |
| **Monitor:** N/A | **Setting:** 3 to 8 feet bgs | ***SEAL MATERIAL*** |
| | | **Type:** Bentonite Chips |
| | | **Setting:** 0 to 2 feet bgs |

***COMMENTS:***

Well installed approximately 2' above suspected bedrock/refusal.

***LEGEND***

- Bentonite Seal
- Silica Sandpack
- PVC Casing
- PVC Screen

| | | |
|---|---|---|
| **Client: Regan** | **Location: Washington, Park, E. Second** | **Project No.: C907042** |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number: RI-MW-5** |

# Appendix E

# Well Development Logs

# WELL DEVELOPMENT LOG

PROJECT TITLE: Block of Wasington, E. Second, and Park WELL NO.: RI-BW-1

PROJECT NO.: C907042

STAFF: Paul Staub

DATE(S): 8/14/2025 and 8/18/2025

DEVELOPMENT METHOD: Low Flow Peristaltic Pump, HDPE Tubing, Minimonsoon 12V downwell Pump, HDPE Tubing

| | | | WELL ID. | VOL. (GAL/FT) |
|---|---|---|---|---|
| 1. DEPTH TO WELL BOTTOM (FT. BTOR) | = | 21.89 | 1" | 0.04 |
| 2. WATER LEVEL BELOW TOP OF RISER (FT. BTOR) | = | 10.87 | 2" | 0.17 |
| 3. NUMBER OF FEET STANDING WATER (#1 - #2) | = | 11.02 | 3" | 0.38 |
| 4. VOLUME OF WATER/FOOT OF CASING (GALLONS) | = | 0.17 | 4" | 0.66 |
| 5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4) | = | 1.87 | 5" | 1.04 |
| 6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x x 3) | = | 5.6202 | 6" | 1.50 |
| 7. VOLUME OF WATER ACTUALLY REMOVED (GAL.) | = | 180.0 | | |

OR

V=0.0408 x (CASING DIAMETER)²

| PARAMETERS | ACCUMULATED VOLUME PURGED (GALLONS) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 55 | 110 | 165 | 180 | | | | | | | |
| pH | 7.3 | 8.35 | 6.9 | 6.91 | | | | | | | |
| TEMPERATURE (°C) | 14.8 | 15.2 | 14.7 | 14.8 | | | | | | | |
| SPEC. COND. ( mS/cm ) | 1431 | 1249 | 1452 | 1451 | | | | | | | |
| ORP (mV) | -33.8 | -51.7 | -19.4 | -23.9 | | | | | | | |
| DISSOLVED OXYGEN (mg/l) | 8.88 | 3.98 | 5.39 | 5.15 | | | | | | | |
| TURBIDITY (NTU) | 454.99 | 181.86 | 58.72 | 48.85 | | | | | | | |
| DEPTH TO WATER (btor) | 11.51 | 12.01 | 11.87 | 11.65 | | | | | | | |
| TIME | 10:00 AM | 13:00 | 15:30 | 14:10 | | | | | | | |
| DATE | 8/14/2025 | | | 8/18/2025 | | | | | | | |

**COMMENTS:**

Approximately 180 gallons of water lost to subsurface during well installation

# WELL DEVELOPMENT LOG

PROJECT TITLE: Block of Wasington, E. Second, and Park WELL NO.: RI-BW-2

PROJECT NO.: C907042

STAFF: Paul Staub

DATE(S): 8/14/2025 and 8/18/2025

DEVELOPMENT METHOD: Low Flow Peristaltic Pump, HDPE Tubing

| | | | WELL ID. | VOL. (GAL/FT) |
|---|---|---|---|---|
| 1. DEPTH TO WELL BOTTOM (FT. BTOR) | = | 25.60 | 1" | 0.04 |
| 2. WATER LEVEL BELOW TOP OF RISER (FT. BTOR) | = | 20.89 | 2" | 0.17 |
| 3. NUMBER OF FEET STANDING WATER (#1 - #2) | = | 4.71 | 3" | 0.38 |
| 4. VOLUME OF WATER/FOOT OF CASING (GALLONS) | = | 0.17 | 4" | 0.66 |
| 5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4) | = | 0.80 | 5" | 1.04 |
| 6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x___ x 3) | = | 2.4021 | 6" | 1.50 |
| 7. VOLUME OF WATER ACTUALLY REMOVED (GAL.) | = | 20.0 | | |

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

| PARAMETERS | ACCUMULATED VOLUME PURGED (GALLONS) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10 | 10 | | | | | | | | | |
| pH | 12.37 | 9.81 | | | | | | | | | |
| TEMPERATURE (°C) | 21.1 | 21.2 | | | | | | | | | |
| SPEC. COND. ( mS/cm ) | 5511 | 2102 | | | | | | | | | |
| ORP (mV) | -50.7 | -106.3 | | | | | | | | | |
| DISSOLVED OXYGEN (mg/l) | 5.17 | 8.23 | | | | | | | | | |
| TURBIDITY (NTU) | 988.1 | 201.8 | | | | | | | | | |
| DEPTH TO WATER (btor) | 20.89 | 20.91 | | | | | | | | | |
| TIME | 1:00 PM | 13:00 | | | | | | | | | |
| DATE | 8/14/2025 | 8/18/2025 | | | | | | | | | |

**COMMENTS:**

Approximately 200 gallons of water lost to subsurface during well installation

Well was pumped dry and left to recharge contiunously throughout each day. Recharge was extremely slow.

Measurements are taken from top of riser which is approximatley 3.5' above ground surface. Riser will be cut down during final install.

# WELL DEVELOPMENT LOG

PROJECT TITLE: Block of Wasington, E. Second, and Park WELL NO.: RI-BW-3

PROJECT NO.: C907042

STAFF: Paul Staub

DATE(S): 8/14/2025 and 8/18/2025

DEVELOPMENT METHOD: Low Flow Peristaltic Pump, HDPE Tubing, Minimonsoon 12V downwell Pump, HDPE Tubing

| | | | WELL ID. | VOL. (GAL/FT) |
|---|---|---|---|---|
| 1. DEPTH TO WELL BOTTOM (FT. BTOR) | = | 24.10 | 1" | 0.04 |
| 2. WATER LEVEL BELOW TOP OF RISER (FT. BTOR) | = | 11.40 | 2" | 0.17 |
| 3. NUMBER OF FEET STANDING WATER (#1 - #2) | = | 12.70 | 3" | 0.38 |
| 4. VOLUME OF WATER/FOOT OF CASING (GALLONS) | = | 0.17 | 4" | 0.66 |
| 5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4) | = | 2.16 | 5" | 1.04 |
| 6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x x 3) | = | 6.477 | 6" | 1.50 |
| 7. VOLUME OF WATER ACTUALLY REMOVED (GAL.) | = | 130.0 | | |

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

| PARAMETERS | ACCUMULATED VOLUME PURGED (GALLONS) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 55 | 110 | 130 | | | | | | | | |
| pH | 8.01 | 7.29 | 7.17 | | | | | | | | |
| TEMPERATURE (°C) | 14.1 | 13.5 | 13.3 | | | | | | | | |
| SPEC. COND. ( mS/cm ) | 1211 | 1027 | 1035 | | | | | | | | |
| ORP (mV) | -164.5 | -144.4 | -156.2 | | | | | | | | |
| DISSOLVED OXYGEN (mg/l) | 9.54 | 8.25 | 7.9 | | | | | | | | |
| TURBIDITY (NTU) | 387.86 | 26.8 | 28.82 | | | | | | | | |
| DEPTH TO WATER (btor) | 11.4 | 11.41 | 11.52 | | | | | | | | |
| TIME | 10:00 AM | 11:00 | 15:30 | | | | | | | | |
| DATE | 8/14/2025 | 8/18/2025 | | | | | | | | | |

**COMMENTS:**

Approximately 120 gallons of water lost to subsurface during well installation

# WELL DEVELOPMENT LOG

PROJECT TITLE: Block of Wasington, E. Second, and Park WELL NO.: RI-MW-2

PROJECT NO.: C907042

STAFF: Paul Staub

DATE(S): 8/18/2025

DEVELOPMENT METHOD: Low flow peristaltic pump, HDPE Tubing

| | | | WELL ID. | VOL. (GAL/FT) |
|---|---|---|---|---|
| 1. DEPTH TO WELL BOTTOM (FT. BTOR) | = | 13.00 | 1" | 0.04 |
| 2. WATER LEVEL BELOW TOP OF RISER (FT. BTOR) | = | 7.80 | 2" | 0.17 |
| 3. NUMBER OF FEET STANDING WATER (#1 - #2) | = | 5.20 | 3" | 0.38 |
| 4. VOLUME OF WATER/FOOT OF CASING (GALLONS) | = | 0.17 | 4" | 0.66 |
| 5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4) | = | 0.88 | 5" | 1.04 |
| 6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x_____ ) | = | 2.652 | 6" | 1.50 |
| 7. VOLUME OF WATER ACTUALLY REMOVED (GAL.) | = | 5.0 | 8" | 2.60 |

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

| PARAMETERS | ACCUMULATED VOLUME PURGED (GALLONS) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.7 | 1.2 | 2 | 3 | 4 | 5 | | | | | |
| pH | 8.23 | 6.9 | 6.84 | 6.8 | 6.79 | 6.78 | | | | | |
| TEMPERATURE (°C) | 14.4 | 14.2 | 14.3 | 14.3 | 14.3 | 14.2 | | | | | |
| SPEC. COND. ( mS/cm ) | 598 | 588 | 614 | 616 | 615 | 615 | | | | | |
| ORP (mV) | 49.9 | 120.9 | 106.3 | 21.2 | -17.2 | -29.4 | | | | | |
| DISSOLVED OXYGEN (mg/l) | 4.94 | 2.21 | 2.09 | 0.64 | 0.3 | 0.21 | | | | | |
| TURBIDITY (NTU) | 670.47 | 106.6 | 35.51 | 47.62 | 48.6 | 49.3 | | | | | |
| DEPTH TO WATER (btor) | 7.8 | 8.1 | 8.68 | 8.9 | 9.1 | 9.2 | | | | | |
| TIME | 9:50 | 10:00 | 10:15 | 10:30 | 10:45 | 11:00 | | | | | |

**COMMENTS:**

# Appendix F

# Purge Logs

# LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Block of Washington, E. Second, and Park  Site: 2nd & Washington  Well I.D.: RI-BW-1

Date: 8/18/2025  Sampling Personnel: Paul Staub  Company: BE3 Corp

Purging/Sampling Device: Peristaltic Pump  Tubing Type: HDPE + Silicone  Pump/Tubing Inlet Location: Middle of Screen

Measuring Point: TOR Marking  Initial Depth to Water: 11.51  Depth to Well Bottom: 21.89  Well Diameter: 2 in  Screen Length: 10'

Casing Type: PVC  Volume in 1 Well Casing (gallons): 1.8  Estimated Purge Volume (gallons): 40

Sample ID: RI-BW-1  Sample Time: 3:00 PM  QA/QC:

Sample Parameters: Part 375 VOCs & TICs, SVOC & TICs, Metals, Pesticides, PCBs ,PFA's, 1-4 Dioxane, Total Cyanide

## PURGE PARAMETERS

| TIME | pH | TEMP (°C) | COND. (mS/cm) | DISS. $O_2$ (mg/l) | TURB. (NTU) | Eh (mV) | FLOW RATE (ml/min.) | DEPTH TO WATER (btor) |
|---|---|---|---|---|---|---|---|---|
| 2:20 PM | 6.97 | 14.9 | 1471.00 | 4.15 | 40.5 | -25.9 | - | 11.60 |
| 2:40 PM | 6.88 | 15.1 | 1481.00 | 2.15 | 15.6 | -12.6 | - | 11.55 |
| 2:45 PM | 6.89 | 15.1 | 1496.00 | 1.63 | 15.6 | -8.9 | - | 11.55 |
| 2:50 PM | 6.89 | 15.1 | 1492.00 | 1.62 | 15.6 | -8.4 | | 11.55 |
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| **Tolerance:** | **0.1** | **---** | **3%** | **10%** | **10%** | **+ or - 10** | **---** | |

**Information:** WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

**Remarks:**

Purging before sampling occurred directly after well development

# LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Block of Washington, E. Second, and Park  Site: 2nd & Washington  Well I.D.: RI-BW-2

Date: 8/18/2025  Sampling Personnel: Paul Staub  Company: BE3 Corp

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Purging/ Sampling Device: | Peristaltic Pump | | | Tubing Type: | HDPE + Silicone | | Pump/Tubing Inlet Location: | Middle of Screen | |
| Measuring Point: | TOR Marking | Initial Depth to Water: | 20.89 | Depth to Well Bottom: | 25.60 | Well Diameter: | 2 in | Screen Length: | 10' |
| Casing Type: | PVC | | | Volume in 1 Well Casing (gallons): | 0.8 | | Estimated Purge Volume (gallons): | 3 | |

Sample ID: RI-BW-2  Sample Time: 4:00 PM  QA/QC:

Sample Parameters: Part 375 VOCs & TICs, SVOC & TICs, Metals, Pesticides, PCBs ,PFA's, 1-4 Dioxane, Total Cyanide

## PURGE PARAMETERS

| TIME | pH | TEMP (°C) | COND. (mS/cm) | DISS. $O_2$ (mg/l) | TURB. (NTU) | Eh (mV) | FLOW RATE (ml/min.) | DEPTH TO WATER (btor) |
|---|---|---|---|---|---|---|---|---|
| 3:25 PM | 9.69 | 21.2 | 505.00 | 8.18 | 50.0 | -106.2 | - | 20.90 |
| 3:30 PM | 9.67 | 21.5 | 504.00 | 8.14 | 44.4 | -112.6 | - | 11.55 |
| 3:40 PM | 9.69 | 21.3 | 501.00 | 8.04 | 44.3 | -108.5 | - | 11.55 |
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| **Tolerance:** | **0.1** | **---** | **3%** | **10%** | **10%** | **+ or - 10** | **---** | |

**Information:** WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

**Remarks:**

Purging before sampling occurred directly after well development

# LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Block of Washington, E. Second, and Park  Site: 2nd & Washington  Well I.D.: RI-BW-3

Date: 8/18/2025  Sampling Personnel: Paul Staub  Company: BE3 Corp

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Purging/ Sampling Device: | Peristaltic Pump | | Tubing Type: | HDPE + Silicone | | Pump/Tubing Inlet Location: | Middle of Screen |
| Measuring Point: | TOR Marking | Initial Depth to Water: 11.40 | Depth to Well Bottom: | 24.10 | Well Diameter: | 2 in | Screen Length: 10' |
| Casing Type: | PVC | | Volume in 1 Well Casing (gallons): | 2.16 | | Estimated Purge Volume (gallons): | 8 |

Sample ID: RI-BW-3  Sample Time: 1:10 PM  QA/QC:

Sample Parameters: Part 375 VOCs & TICs, SVOC & TICs, Metals, Pesticides, PCBs ,PFA's, 1-4 Dioxane, Total Cyanide

## PURGE PARAMETERS

| TIME | pH | TEMP (°C) | COND. (mS/cm) | DISS. $O_2$ (mg/l) | TURB. (NTU) | Eh (mV) | FLOW RATE (ml/min.) | DEPTH TO WATER (btor) |
|---|---|---|---|---|---|---|---|---|
| 12:40 PM | 7.24 | 13.4 | 1036.00 | 8.09 | 36.3 | -153.9 | - | 11.40 |
| 12:50 PM | 7.21 | 13.4 | 1037.00 | 7.98 | 36.1 | -156.4 | - | 11.45 |
| 12:55 PM | 7.19 | 13.1 | 1034.00 | 8.08 | 31.3 | -160.1 | - | 11.40 |
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| **Tolerance:** | **0.1** | **---** | **3%** | **10%** | **10%** | **+ or - 10** | **---** | |

**Information:** WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

**Remarks:**

Purging before sampling occurred directly after well development

# LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Block of Washington, E. Second, and Park | Site: 2nd & Washington | Well I.D.: RI-MW-2

Date: 8/18/2025 | Sampling Personnel: Paul Staub | Company: BE3 Corp

Purging/Sampling Device: Peristaltic Pump | Tubing Type: HDPE + Silicone | Pump/Tubing Inlet Location: Middle of Screen

Measuring Point: TOR Marking | Initial Depth to Water: 7.80 | Depth to Well Bottom: 13.00 | Well Diameter: 2 in | Screen Length: 10'

Casing Type: PVC | Volume in 1 Well Casing (gallons): 0.88 | Estimated Purge Volume (gallons): 2

Sample ID: RI-MW-2, RI-MW-2 MS, RI-MW-2 MSD | Sample Time: 11:45 AM | QA/QC: MS/MSD

Sample Parameters: Part 375 VOCs & TICs, SVOC & TICs, Metals, Pesticides, PCBs ,PFA's, 1-4 Dioxane, Total Cyanide

## PURGE PARAMETERS

| TIME | pH | TEMP (°C) | COND. (mS/cm) | DISS. $O_2$ (mg/l) | TURB. (NTU) | Eh (mV) | FLOW RATE (ml/min.) | DEPTH TO WATER (btor) |
|---|---|---|---|---|---|---|---|---|
| 11:06 AM | 6.75 | 14.4 | 614.00 | 1.00 | 14.1 | -29.2 | - | 9.30 |
| 11:12 AM | 6.76 | 14.3 | 618.00 | 0.38 | 15.3 | -33.9 | - | 9.35 |
| 11:20 AM | 6.77 | 14.4 | 618.00 | 0.33 | 19.9 | -31.3 | - | 9.40 |
| 11:25 AM | 6.76 | 14.4 | 617.00 | 0.35 | 20.1 | -30.9 | | 9.35 |
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| **Tolerance:** | **0.1** | **---** | **3%** | **10%** | **10%** | **+ or - 10** | **---** | |

**Information:** WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

**Remarks:**

Purging before sampling occurred directly after well development

# Appendix G

# Vapor Point Construction Logs

## DRILLING SUMMARY

**Geologist:** Paul Staub

**Contractor:** Sessler

**Operator:** Chris

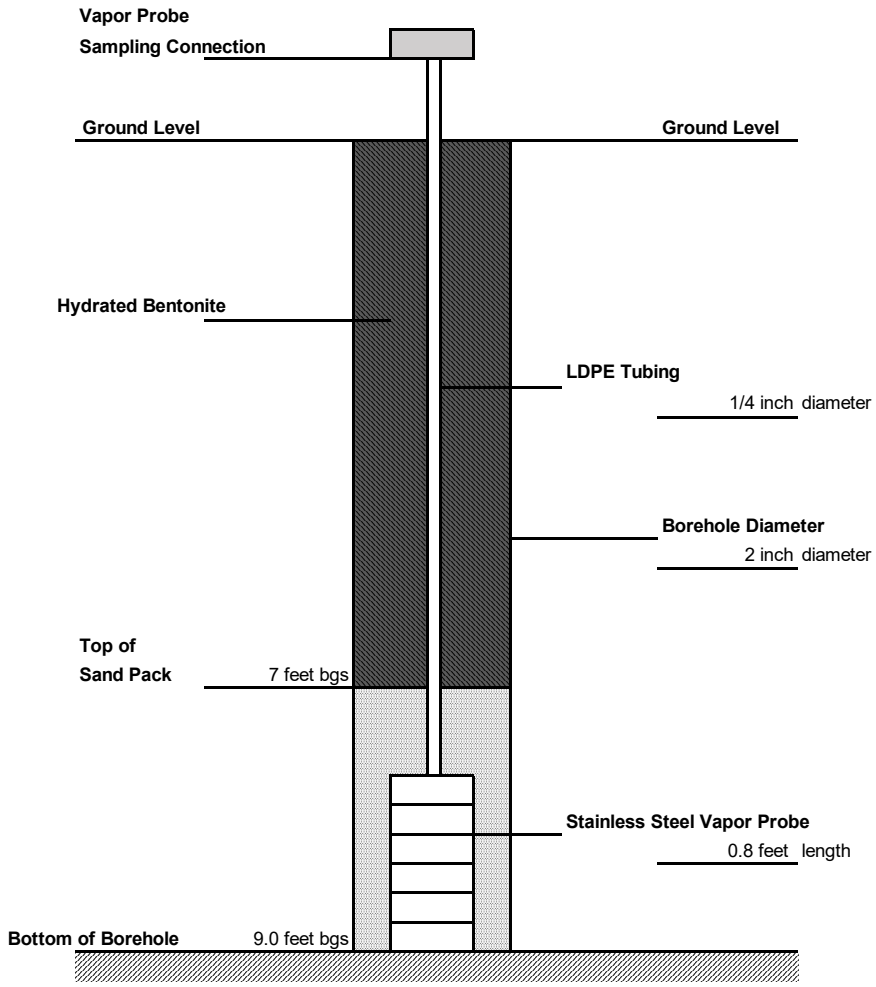
**Model:** 6011DT Geoprobe

**Date:** 5/30/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 7 feet bgs | **Setting:** 7 to 9 feet bgs |

**COMMENTS:**

**LEGEND**

Bentonite Chip Seal

Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-1** |

## DRILLING SUMMARY

**Geologist:** Paul Staub

**Contractor:** Sessler

**Operator:** Chris

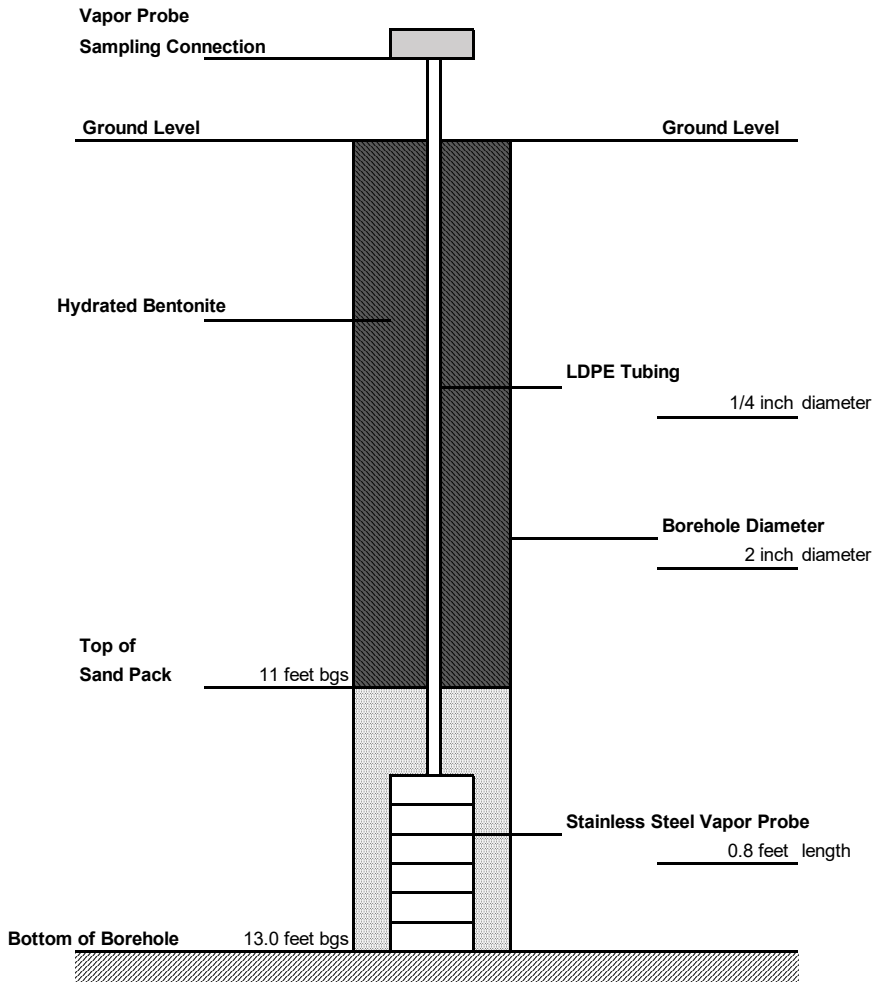
**Model:** 6011DT Geoprobe

**Date:** 5/30/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 11 feet bgs | **Setting:** 11 to 13 feet bgs |

**COMMENTS:**

**LEGEND**

Bentonite Chip Seal

Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-2** |

## DRILLING SUMMARY

**Geologist:** Travis Numan

**Contractor:** Sessler

**Operator:** Chris

**Model:** 6011DT Geoprobe

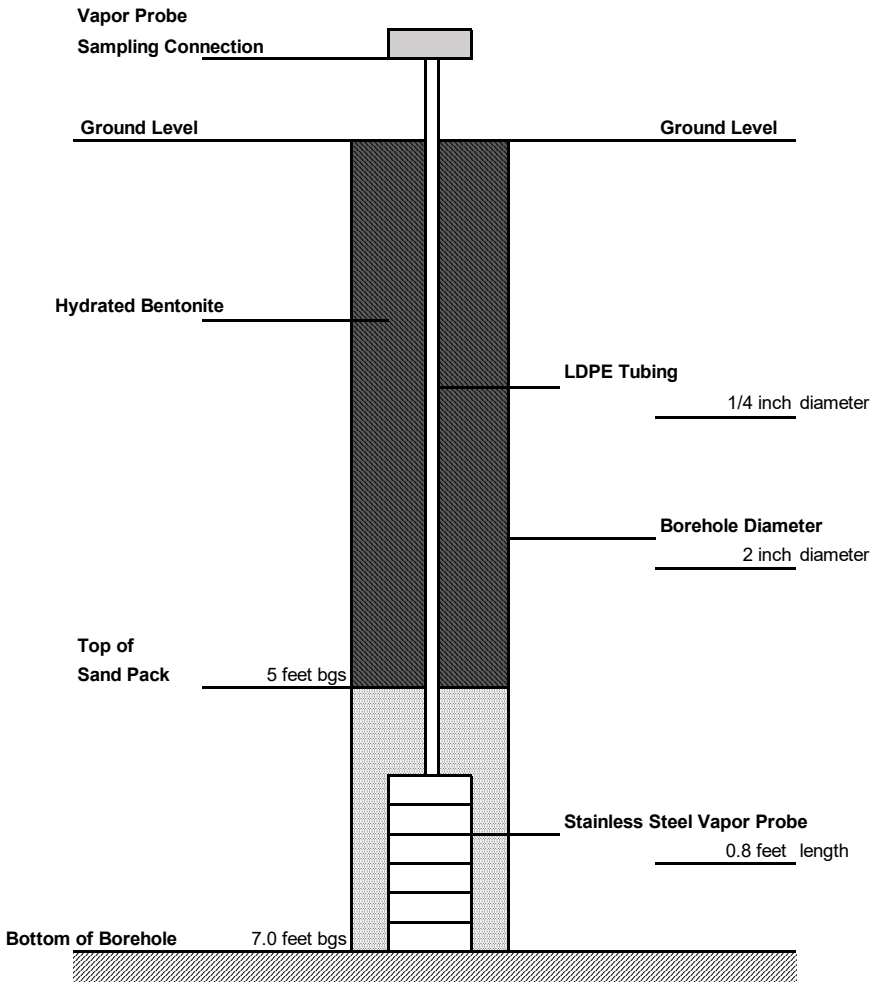
**Date:** 6/3/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH

## PROBE DESIGN




| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 5 feet bgs | **Setting:** 5 to 7 feet bgs |

**COMMENTS:**

**LEGEND**

Bentonite Chip Seal

Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-3** |

## DRILLING SUMMARY

**Geologist:** Paul Staub

**Contractor:** Sessler

**Operator:** Chris

**Model:** 6011DT Geoprobe

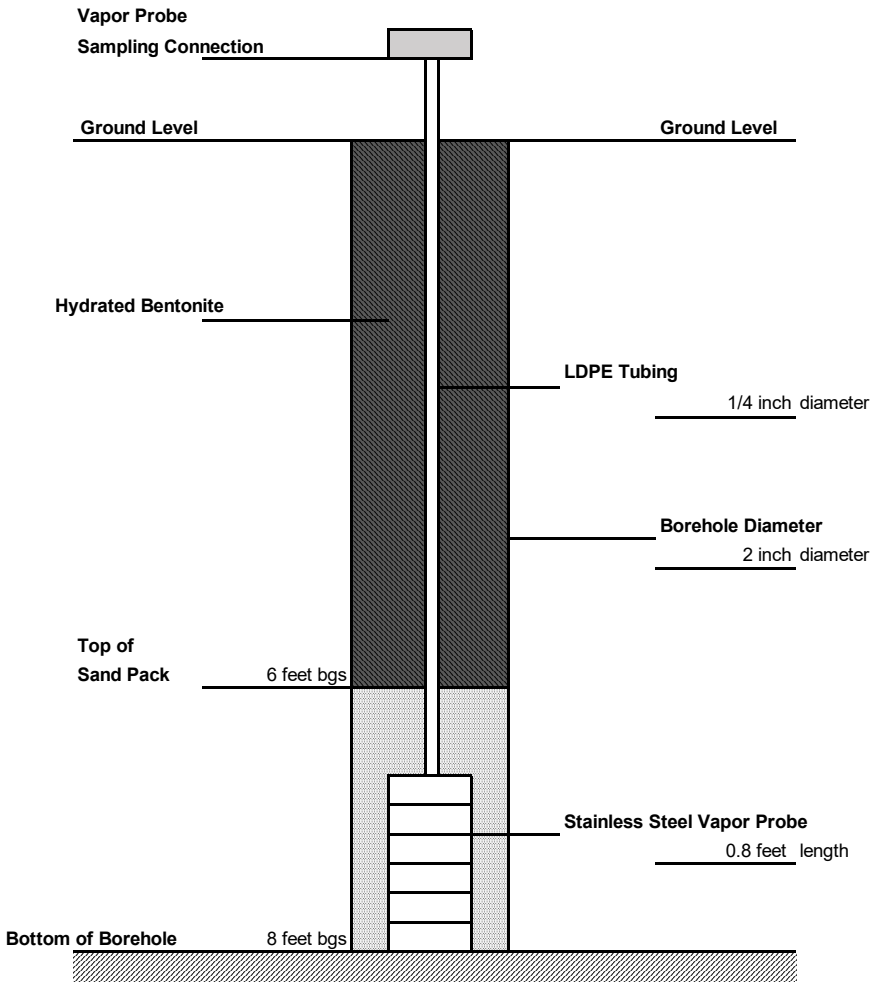
**Date:** 5/30/2025

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH

## PROBE DESIGN




| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 6 feet bgs | **Setting:** 6 to 8 feet bgs |

**COMMENTS:**

**LEGEND**

- Bentonite Chip Seal
- Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-4** |

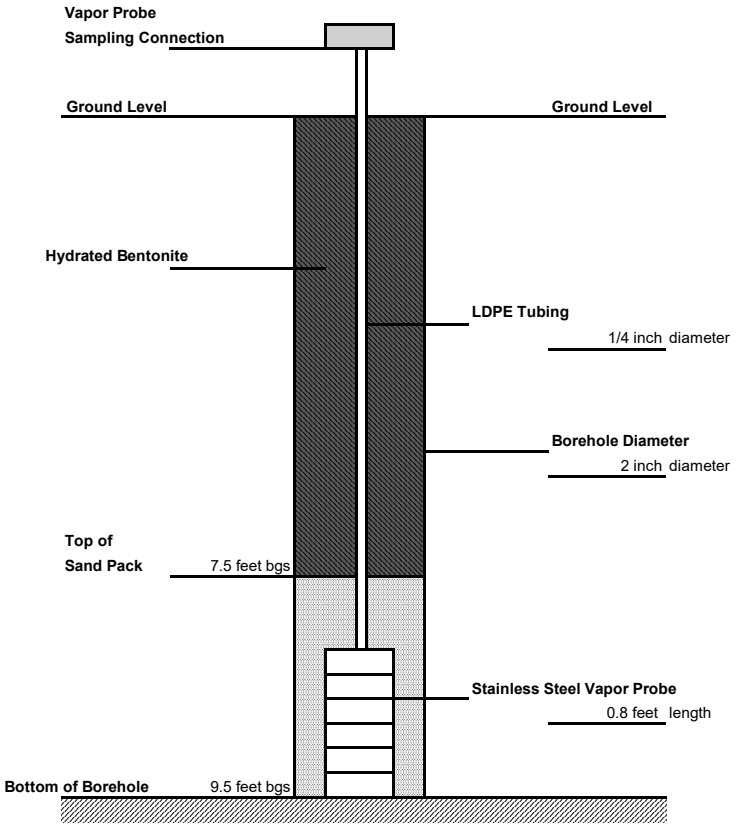
## DRILLING SUMMARY

| | |
|---|---|
| **Geologist:** | Paul Staub |
| **Contractor:** | Sessler |
| **Operator:** | Chris |
| **Model:** | 6011DT Geoprobe |
| **Date:** | 5/30/2025 |

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 7.5 feet bgs | **Setting:** 7.5 to 9.5 feet bgs |

**COMMENTS:**

**LEGEND**

Bentonite Chip Seal

Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-5** |

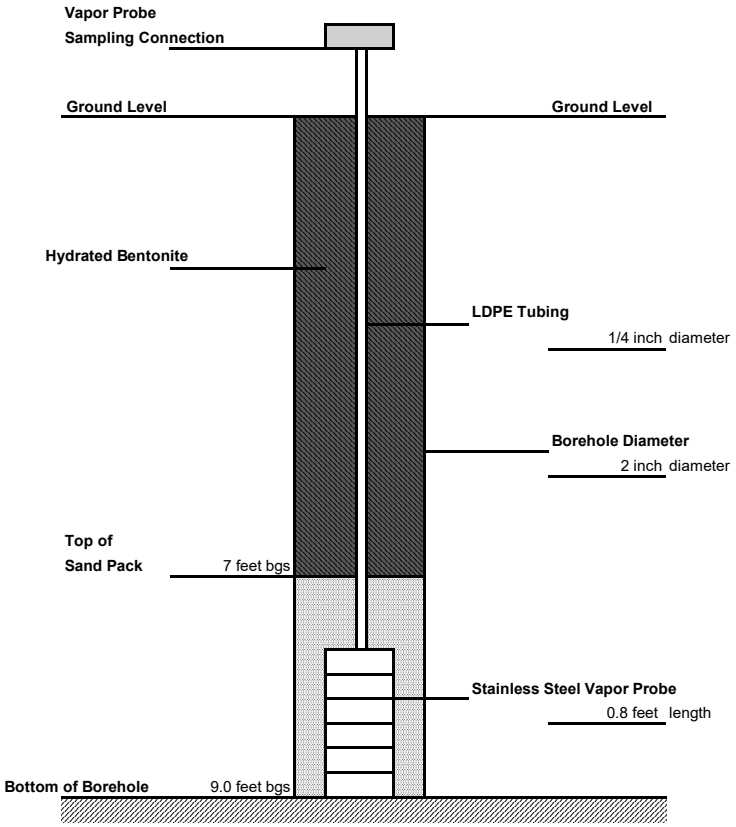
## DRILLING SUMMARY

| | |
|---|---|
| **Geologist:** | Paul Staub |
| **Contractor:** | Sessler |
| **Operator:** | Chris |
| **Model:** | 6011DT Geoprobe |
| **Date:** | 5/30/2025 |

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 7 feet bgs | **Setting:** 7 to 9 feet bgs |

**COMMENTS:**

**LEGEND**

- Bentonite Chip Seal
- Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-6** |

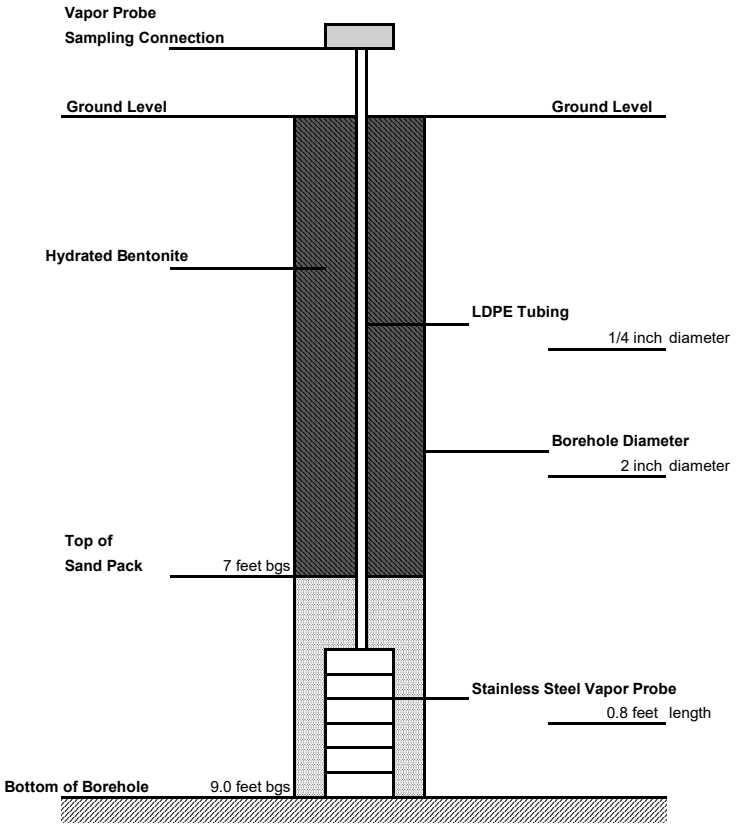
## DRILLING SUMMARY

| | |
|---|---|
| **Geologist:** | Paul Staub |
| **Contractor:** | Sessler |
| **Operator:** | Chris |
| **Model:** | 6011DT Geoprobe |
| **Date:** | 5/30/2025 |

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 7 feet bgs | **Setting:** 7 to 9 feet bgs |

**COMMENTS:**

**LEGEND**

- Bentonite Chip Seal
- Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-7** |

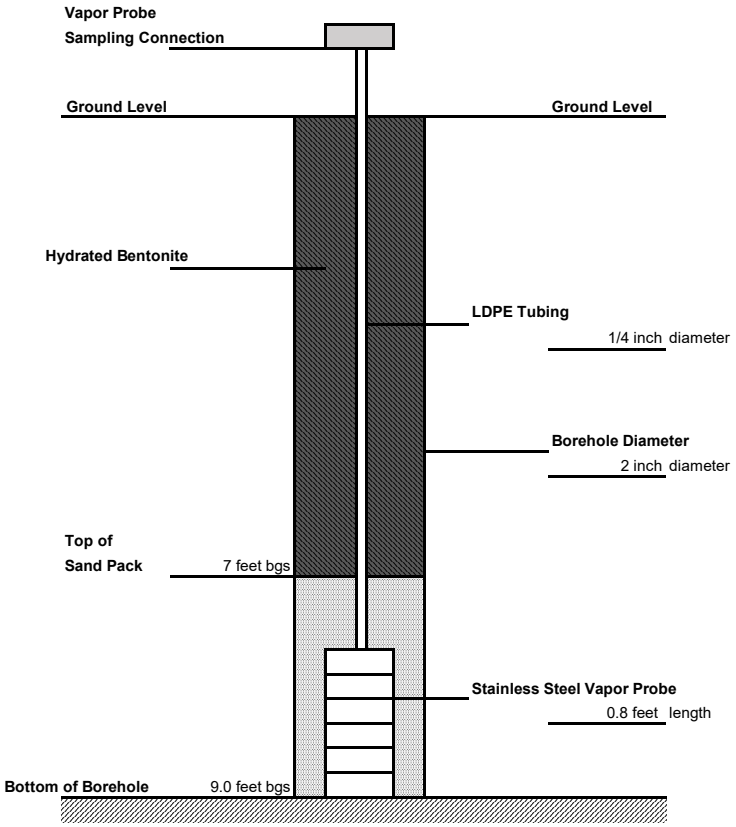
## DRILLING SUMMARY

| | |
|---|---|
| **Geologist:** | Paul Staub |
| **Contractor:** | Sessler |
| **Operator:** | Chris |
| **Model:** | 6011DT Geoprobe |
| **Date:** | 6/3/2025 |

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| | N/A |

DEPTH




## PROBE DESIGN

| CASING MATERIAL | SEAL MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** N/A | **Type:** Bentonite Chips | **Type:** #0 Sand |
| | **Setting:** 0 to 8 feet bgs | **Setting:** 8 to 10 feet bgs |

**COMMENTS:**

**LEGEND**

- Bentonite Chip Seal
- Sand Pack

| | | |
|---|---|---|
| **Client:** Regan | **Location:** Block of Washington, E. Second, and Park | **Project No.** C907042 |
| BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC | **SOIL VAPOR PROBE CONSTRUCTION DETAILS** | **Probe Number: RI-VP-8** |

# Appendix H

# DER-10 – Appendix 3C Decision Key

| Appendix 3C<br>Fish and Wildlife Resources Impact Analysis Decision Key | If YES Go to: | If NO Go to: |
|---|---|---|
| 1. Is the site or area of concern a discharge or spill event? | 13 | 2 |
| 2. Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas. | 13 | 3 |
| 3. Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation? | 4 | 9 |
| 4. Does the site contain habitat of an endangered, threatened or special concern species? | Section 3.10.1 | 5 |
| 5. Has the contamination gone off-site? | 6 | 14 |
| 6. Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination? | 7 | 14 |
| 7. Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances? | Section 3.10.1 | 8 |
| 8. Does contamination exist at concentrations that could exceed ecological impact SCGs or be toxic to aquatic life if discharged to surface water? | Section 3.10.1 | 14 |
| 9. Does the site or any adjacent or downgradient property contain any of the following resources?<br>i. Any endangered, threatened or special concern species or rare plants or their habitat<br>ii. Any DEC designated significant habitats or rare NYS Ecological Communities<br>iii. Tidal or freshwater wetlands<br>iv. Stream, creek or river<br>v. Pond, lake, lagoon<br>vi. Drainage ditch or channel<br>vii. Other surface water feature<br>viii. Other marine or freshwater habitat<br>ix. Forest<br>x. Grassland or grassy field<br>xi. Parkland or woodland<br>xii. Shrubby area<br>xiii. Urban wildlife habitat<br>xiv. Other terrestrial habitat | 11 | 10 |
| 10. Is the lack of resources due to the contamination? | 3.10.1 | 14 |
| 11. Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources? | 14 | 12 |
| 12. Does the site have widespread surface soil contamination that is not confined under and around buildings or paved areas? | Section 3.10.1 | 12 |
| 13. Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact DEC for information regarding endangered species.) | Section 3.10.1 | 14 |
| 14. No Fish and Wildlife Resources Impact Analysis needed. | | |

# Appendix I

# Alternative Cost Estimates

| ALTERNATIVE 1 - REMEDIATE TO TRACK 4 - RESTRICTED RESIDENTIAL | | | |
|---|---|---|---|
| **Item** | **Unit Cost** | **Quantity** | **Total** |
| Mobilization/Demobilization (LS) | $15,000 | 1 | $15,000 |
| Excavate/dispose - Existing slab,subbase, subsurface soil (2') (Tons) | $60.00 | 6800 | $408,000 |
| Additional Excavate/dispose - New Build (Foundations') (Tons) | $60.00 | 500 | $30,000 |
| Import Clean Fill/Placement greenspace- 2' (Tons) | $25.00 | 2300 | $57,500 |
| Building Foundations (LS) | $100,000.00 | 1 | $100,000 |
| 8" Stone Fill - Building & Parking lot (Tons) | $30.00 | 1500 | $45,000 |
| 4" Asphalt Pavement (SF) | $4.00 | 21500 | $86,000 |
| Delineation Fabric (SY) | $1.35 | 6600 | $8,910 |
| Imported Clean Fill Assess Sampling (LS) | $10,000 | 1 | $10,000 |
| Confirmation/Waste Sampling (LS) | $10,000 | 1 | $10,000 |
| Vapor Mitigation System (SSDS) | $150,000 | 1 | $150,000 |
| Sub-Total | | | $920,410 |
| | | | |
| Engineering Oversight (5 Months) (LS) | $300,000 | 1 | $300,000 |
| Sub-Total | | | $1,220,410 |
| Contingency (10%) | | | $122,041 |
| Estimated Capital Cost Total | | | $1,342,451 |
| | | | |
| **Total Cost** | **$1,342,451.00** | | |

**Assumptions:**

1) Conversion factor of cubic yards of soil/stone to tons is 1.5

| ALTERNATIVE 2 - REMEDIATE TO TRACK 1 - UNRESTRICTED | | | |
|---|---|---|---|
| **Item** | **Unit Cost** | **Quantity** | **Total** |
| Mobilization/Demobilization (LS) | $15,000 | 1 | $15,000 |
| Excavate/dispose - 11+/-' Existing hardscape and soil to bedrock (Tons) | $60.00 | 36200 | $2,172,000 |
| Import Clean Fill/Placement/Hardscape Minium 11' across the Site (Tons) | $25.00 | 36200 | $905,000 |
| Building Foundations (LS) | $100,000.00 | 1 | $100,000 |
| 8" Stone Fill - Building & Parking lot (Tons) | $30.00 | 1500 | $45,000 |
| 4" Asphalt Pavement (SF) | $4.00 | 21500 | $86,000 |
| Delineation Fabric (SY) | $1.35 | 4700 | $6,345 |
| Imported Clean Fill Assess Sampling (LS) | $20,000 | 1 | $20,000 |
| Confirmation/Waste Sampling (LS) | $20,000 | 1 | $20,000 |
| Sub-Total | | | $3,369,345 |
| | | | |
| Engineering Oversight (6 Months) (LS) | $350,000 | 1 | $350,000 |
| Sub-Total | | | $3,719,345 |
| Contingency (10%) | | | $371,935 |
| Estimated Capital Cost Total | | | $4,091,280 |
| | | | |
| **Total Cost** | **$4,091,280** | | |

**Assumptions:**

1) Conversion factor of cubic yards of soil/stone to tons is 1.5

# Appendix J

# Pre-Demolition Asbestos Inspection Report

BE3 BRYDGES ENGINEERING IN ENVIRONMENT AND ENERGY, DPC

# Pre-Demolition Asbestos Inspection Report


**Project Location:**

220 Washington Ave. – Two Story Brick Building
211 Park Ave. – Rear Barn Storage Building
Dunkirk, NY 14048

**Project ID:** 25-0324CL-A

***Conditions as of:*** *March 24th, 2025*

**Prepared for:**

Jason M. Brydges
President
Brydges Engineering in Environment and Energy, DPC
960 Busti Avenue, Suite B-150
Buffalo, New York, 14213

**Prepared by:**

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April 3rd , 2025

Jason M. Brydges
President
Brydges Engineering in Environment and Energy, DPC
960 Busti Avenue, Suite B-150
Buffalo, New York, 14213

**Re: Pre-Demolition Asbestos Inspection Report**
**220 Washington Ave. & 211 Park Ave.**
**Dunkirk, NY 14048**
**AMD Project ID: 25-0324CL-A**

Mr. Brydges:

I am pleased to present this summary of asbestos survey services at the above referenced address.

**AMD Environmental Consultants conducted a pre-demolition asbestos inspection at the above referenced locations on March 24th, 2025. The inspection was conducted for readily accessible building spaces for the two-story brick building located at 220 Washington Ave. & the rear barn storage building located at 211 Park Ave as outlined by the client. Asbestos containing materials (ACM) were identified above 1% in materials that were sampled. For more detail refer to the summary on page 4.**

New York State asbestos regulations (12 NYCRR 56-5) require that asbestos surveys are conducted in order to determine whether or not the building or structure, or portion(s) thereof to be demolished, renovated, remodeled, contains asbestos containing building materials (ACBM), or presumed asbestos containing materials (PACM). These regulations also require that a copy of the pre-demolition survey be forwarded to the local New York State Department of Labor (NYSDOL) Asbestos Control Bureau immediately upon completion of the survey (Buffalo Office: 65 Court Street, Rm. 405, Buffalo, NY 14202). **If requested to AMD in writing, a copy of the survey will be submitted on your behalf to the NYSDOL, otherwise a copy must be submitted by the owner.**

AMD Environmental Consultants, Inc. surveys are intended to determine, to a reasonable extent, the presence, location, quantity, and condition of accessible asbestos containing materials (surfacing, thermal systems insulation, and miscellaneous materials). The information contained herein is representative of conditions found onsite during the date/time this survey was conducted. Environmental conditions, renovation, vandalism, etc. may alter conditions from the date/time that this survey was conducted, potentially creating new hazards.

Please do not hesitate to contact me if I may provide any additional information.

Sincerely,

Craig Libglid
Field Supervisor
NYS Licensed Asbestos Inspector
Cert #23-61JKE-SHAB
AMD Environmental Consultants, Inc.

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# Table of Contents

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# 1.0 Asbestos Inspection

## 1.1 Introduction

AMD Environmental Consultants, Inc. (AMD) was retained by Brydges Engineering in Environment and Energy, DPC to inspect the buildings located at 220 Washington Ave. & 211 Park Ave. in Dunkirk, NY 14048 for the presence of materials suspected of containing asbestos for the planned demolition of the property. At minimum, all exterior suspect materials, and all interior suspect materials which make up flooring, walls, ceilings and thermal system insulation were reviewed and sampled where necessary.

AMD was assigned to:

- Locate suspect asbestos containing materials (ACM),
- Sample these materials to determine asbestos content, and
- Identify the locations and estimated quantities of the confirmed asbestos containing materials.

The information following this introduction details the amount of asbestos present in this facility and the location of the ACBM (asbestos containing building materials). Although the report is a comprehensive analysis of the asbestos inspection work performed, it would be helpful to review all applicable federal, state and local rules, laws and regulations regarding the handling and treatment of ACBM.

The following is a list of suggested reading and information sources relating to asbestos:

- New York State Department of Labor Industrial Code Rule 56
- National Emission Standard for Hazardous Air Pollutants (NESHAPS)
- Occupational Safety and Health Administration
- (OSHA 1926.1101, 1910.134, 1910.1020, 1910.1200, 1910.145, 1910.95, 1926.58)
- Environmental Protection Agency rule CFR763.46 Asbestos Hazard Emergency Response Act

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## 1.2 Executive Summary

The scope of services included the identification of suspect asbestos containing building materials for the planned demolition of the property; sampling and analysis of the suspect materials; and identifying the locations, estimated quantities, and condition of the confirmed asbestos containing materials. Sampling and analysis of the suspect materials under Polarized Light Microscopy (PLM), and where necessary, under Transmission Electron Microscopy (TEM), revealed the following materials as asbestos containing building materials (ACBM):

**ASBESTOS CONTAINING MATERIALS SUMMARY FOR:**

**220 Washington Ave., Dunkirk NY 14048 (Two Story Brick Building)**

| HAN | Material Description | SID (Space Identification Number) | Estimated Quantity SF* | Friability/ Condition |
|---|---|---|---|---|
| 306 | Residual Floor Mastic | 1009 | 2,200 SF | NF/D |
| 601 | Exterior Window Glazing – See Note 2 | Exterior 2nd Floor Windows (19 Windows Total) | <10 SF | NF/D |
| 605 | All Roofing Components –See Note 1 | 2-Story Brick Bldg. Roof System | 5,160 SF | NF/D |

*Quantities are approximate, and are only associated with areas of planned renovation. Additional asbestos containing materials may be located outside areas of planned renovation that were not surveyed, assessed or quantified during this inspection.

**Notes to Executive Summary and Homogenous Materials Tables:**

**Note 1:** The roofing material (HAN605) has been assumed to be an Asbestos Containing Material at the time of the inspection due to limited access and safety concerns.
**Note 2:** The exterior window glazing (HAN601) on 2nd floor windows are on 19 windows and has approx. ¼ SF per window. The quantity provided is for the 2nd floor windows only as the first floor windows did not have window glazing.

**KEY TERMS AND DEFINITIONS:**

HAN= Homogenous Area Number; number assigned to categorize materials of like composition, texture and appearance

SID=Space Identification Number: Sample Locations

**Friability/Condition:**

F= Friable: a material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure, or is capable of being released into the air by hand pressure.

NF= Non Friable: a material that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure, or is incapable of being released into the air by hand pressure.

I= Intact: Asbestos material that has not crumbled, been pulverized, or otherwise been damaged or disturbed, and the material's matrix has not noticeably deteriorated.

D= Damaged: Asbestos material that has deteriorated or sustained physical injury demonstrated by separation of the ACM into layers, separation of the ACM from the substrate, flaking, blistering, crumbling, water damage, scrapes, gouges, or other signs of physical injury.

SD=Significantly Damaged: Damaged asbestos where the damage is extensive and severe.

ACM=Asbestos Containing Material: material analyzed and confirmed by laboratory to contain above 1% of asbestos

PACM= Presumed Asbestos Containing Material: this material was assumed to contain asbestos to either save the client on lab fees or because the material was adhered to another asbestos containing material (or adjacent to other materials needing abatement) and must be managed as such.

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### 1.3 Purpose

The purpose of the asbestos inspection was to identify and quantify the types of asbestos containing building materials (ACBM) for the planned demolition of the property. Samples of the suspect materials were collected for analysis by an independent laboratory, and the condition of each material noted in relation to its potential to be disturbed. The potential for fiber release was also considered.

The report is generated for the exclusive use of Brydges Engineering in Environment and Energy, DPC and their representatives or agents, and is not designed to serve as a specification for abatement. Before requesting bids for abatement of materials identified in this report, the owner is strongly encouraged to contract with a consultant to provide this valuable service. A specification assures that all contractors are bidding on the same methodology and following the specific requirements for the work to be performed.

The inspection was conducted by NYS DOL Certified Asbestos Inspector(s) Craig Libglid and Matt Beauregard on March 24th, 2025 and revealed the following suspect asbestos containing building materials:

**HOMOGENOUS MATERIALS & SAMPLE RESULTS FOR:**
**211 Park Ave., Dunkirk NY 14048 (Rear Barn Storage Bldg.)**

| HAN | Suspect Asbestos Containing Material Description | SID (Space Identification Number) | Sample No. | ACM (Y/N) | Estimated Quantity SF* | Friability/ Condition |
|---|---|---|---|---|---|---|
| 602 | Vapor Barrier – Under Siding | Exterior Siding | 602-1, 602-2 | No | N/A | N/A |

*Quantities are approximate, and are only associated with areas of planned renovation. Additional asbestos containing materials may be located outside areas of planned renovation that were not surveyed, assessed or quantified during this inspection.

**Notes to Executive Summary and Homogenous Materials Tables:**

- **Note:** The rear storage building was inspected and sampled to meet the upcoming demolition plans. The existing roof system is metal on wood and therefore was not considered suspect to contain asbestos. The interior of the structure did not have suspect materials, and consisted of wood only.

The above listed table provides a list of the materials that were sampled and tested for asbestos by Polarized Light Microscopy (PLM) and or Transmission Electron Microscopy (TEM), as applicable. Any sample determined to be a non-friable organically bound material (NOB), and which was found to be negative by Polarized Light Microscopy (PLM) analysis, was then analyzed by Transmission Electron Microscopy (TEM) analysis at ERA Analytical, LLC in Grand Island, New York. ERA Analytical, LLC is an ELAP Certified laboratory (ID: 12161) and conducts analysis according to EPA Method 198.1, 198.4 and 198.6. See Section 2.0 for the laboratory's analytical results.

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## HOMOGENOUS MATERIALS & SAMPLE RESULTS FOR:
## 220 Washington Ave., Dunkirk NY 14048 (Two Story Brick Building)

| HAN | Suspect Asbestos Containing Material Description | SID (Space Identification Number) | Sample No. | ACM (Y/N) | Estimated Quantity SF* | Friability/ Condition |
|---|---|---|---|---|---|---|
| 101 | Drywall | Throughout Building | 101-1, 101-2 | No | N/A | N/A |
| 101A | Joint Compound | Throughout Building | 101A-1, 101A-2 | No | N/A | N/A |
| 102 | Ceramic Tile – Grout | 1005, 1009 | 102-1, 102-2 | No | N/A | N/A |
| 102A | Ceramic Tile – Mastic | 1005, 1009 | 102A-1, 102A-2 | No | N/A | N/A |
| 201 | 2” x 4” White Texture Ceiling Tile | 1008 | 201-1, 201-2 | No | N/A | N/A |
| 202 | 2” x 2” Dot & Fissure Ceiling Tile | 1004 | 202-1, 202-2 | No | N/A | N/A |
| 203 | 2” x 2” Dot Ceiling Tile | 1005 | 203-1, 203-2 | No | N/A | N/A |
| 300 | 12” x 12 Floor Tile – Gray & White | 1005, 1008, 1009 | 300-1, 300-2 | No | N/A | N/A |
| 300A | Mastic of HAN300 - Yellow | 1005, 1008, 1009 | 300A-1, 300A-2 | No <1.0% | N/A | N/A |
| 301 | Linoleum – Yellow & Gray | 1000 | 301-1, 301-2 | No | N/A | N/A |
| 302 | Carpet Mastic | 1000, 1001, 1002, 1003, 1006, 2004, 2007 | 302-1, 302-2 | No | N/A | N/A |
| 303 | 12” x 12” Floor Tile – White | 1000, 1001, 1002, 1003, 1006 | 303-1, 303-2 | No | N/A | N/A |
| 303A | Mastic of HAN303 – Black | 1000, 1001, 1002, 1003, 1006 | 303A-1, 303A-2 | No | N/A | N/A |
| 304 | 12” x 12” Floor Tile - Blue / Gray | | 304-1, 304-2 | No | N/A | N/A |
| 305 | Drywall Flooring | 1004, 1005, 1008 | 305-1, 305-2 | No | N/A | N/A |
| **306** | **Residual Floor Mastic** | **1009** | **306-1, 306-2** | **Yes** | **2,200 SF** | **NF/D** |
| 307 | Linoleum – Red Brick | 2006 | 307-1, 307-2 | No <1.0% | N/A | N/A |
| 600 | Window Glazing – Interior | 2001 | 600-1, 600-2 | No | N/A | N/A |
| **601** | **Exterior Window Glazing – Note 2** | **Exterior 2nd Floor Windows (19 Windows Total)** | **601-1, 601-2** | **Yes** | **< 10 SF** | **NF/D** |
| **605** | **All Roofing Components -See Note 1** | **Exterior Roof System** | **Sample Not Submitted** | **Yes** | **5,160 SF** | **NF/D** |

**Notes to Executive Summary and Homogenous Materials Tables:**

**Note 1:** The roofing material (HAN605) has been assumed to be an Asbestos Containing Material at the time of the inspection due to limited access and safety concerns.

**Note 2:** The exterior window glazing (HAN601) on 2nd floor windows are on 19 windows and has approx. ¼ SF per window. The quantity provided is for the 2nd floor windows only as the first floor windows did not have window glazing.

**General Note:** The basement was not found to contain materials suspected of containing asbestos on the date of the inspection.

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The above listed table provides a list of the materials that were sampled and tested for asbestos by Polarized Light Microscopy (PLM) and or Transmission Electron Microscopy (TEM), as applicable. Any sample determined to be a non-friable organically bound material (NOB), and which was found to be negative by Polarized Light Microscopy (PLM) analysis, was then analyzed by Transmission Electron Microscopy (TEM) analysis at ERA Analytical, LLC in Grand Island, New York. ERA Analytical, LLC is an ELAP Certified laboratory (ID: 12161) and conducts analysis according to EPA Method 198.1, 198.4 and 198.6. See Section 2.0 for the laboratory's analytical results.

### 1.4 Methodology

All work performed by AMD Environmental Consultants, Inc. was conducted in accordance with applicable regulations, including New York State Department of Labor standards 12NYCRR Part 56, National Emission Standards for Hazardous Air Pollutants (NESHAPS), and Occupational Safety and Health Administration regulations 29CFR1910.1101 and 29CFR1910.134. All AMD personnel assigned to conduct inspections have completed the Environmental Protection Agency (EPA) required training and New York State Department of Labor Division of Safety and Health certification program.

Each suspect asbestos containing building material (ACBM) was assigned a homogenous area number (HAN). Homogeneous areas consist of materials of like composition, texture and appearance.

Based on the homogeneous areas, samples of suspect materials were collected. Techniques used for sample collection were designed to minimize damage to suspected areas, reduce any potential for fiber release, and ensure the safety of the inspector and building occupants. Samples were collected by AMD personnel using the following procedures:

1. The surface to be sampled was sprayed with amended water (detergent and water) as necessary

2. A plastic sample bag was held to the surface sampled

3. The sample was collected using tools appropriate to the friability of the material sampled

4. Sample bags were labeled with a unique sample identification number

5. Samples were recorded on a Chain of Custody form, and submitted under strict chain-of-custody procedures to ERA Analytical, LLC in Grand Island, New York. ERA Analytical, LLC is an ELAP and NYSDOH approved, certified laboratory for PLM and TEM analysis (ELAP ID: 12161).

Samples were first analyzed using PLM, Polarized Light Microscopy in accordance with US Environmental Protection Agency Interim Method, 40CFRPt763, Supt F, App A(7-1-87). For the sample results not considered definitive, additional analysis was performed under Transmission Electron Microscopy (TEM) in accordance with NYSDOH ELAP Item 198.4, for Non-Friable Organically Bound Bulk Material (NOB). The results of these analyses confirmed whether or not a suspect material actually contained asbestos. All materials sampled are summarized in Section 1.3 of this report; the presumed asbestos containing materials and materials containing asbestos above 1.0% are listed in Section 1.2.

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# 2.0 Site Photographs

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# Appendix I

## Site Photographs

**Location:**

211 Park Ave - Farm Style Frame Building

**Observation:**

Overall existing exterior conditions of the inspection site as of 03/24/2025.

Asbestos containing materials were not identified for this building.

**Location:**

211 Park Ave - Farm Style Frame Building

**Observation:**

Overall existing exterior conditions of the inspection site as of 03/24/2025.

Asbestos containing materials were not identified for this building.

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# Appendix I

## Site Photographs

**Location:**

211 Park Ave - Farm Style Frame Building

**Observation:**

HAN602: Vapor Barrier – Under Siding

The material was not found to contain asbestos greater than 1.0%.

**Location:**

211 Park Ave - Farm Style Frame Building

**Observation:**

Overall existing interior conditions of the inspection site as of 03/24/2025.

Interior materials were not considered suspect and therefore did not require sampling.

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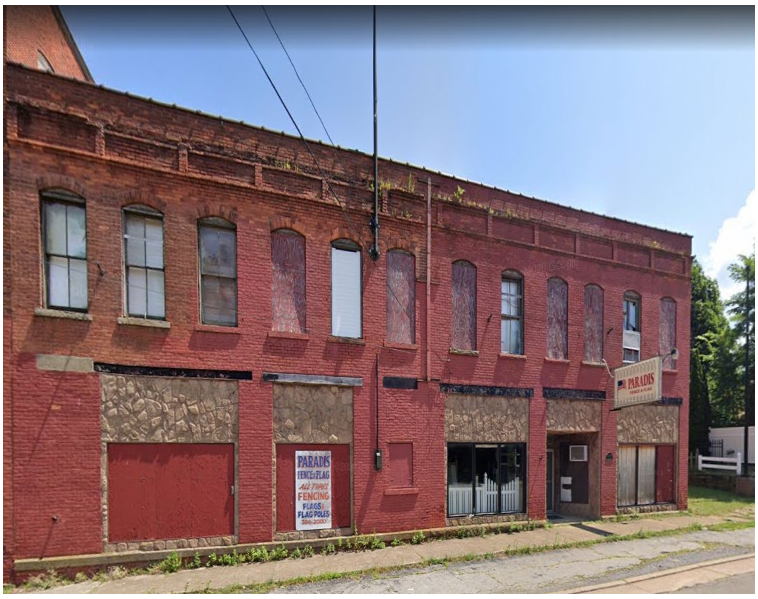
# Appendix I

## Site Photographs




**Location:**

220 Washington Ave
2 Story Brick Building

**Observation:**

Overall existing exterior (front) conditions of the inspection site as of 03/24/2025.

Asbestos containing materials were identified in some of the materials sampled for this building.

**Location:**

220 Washington Ave
2 Story Brick Building

**Observation:**

HAN601: Exterior Window Glazing - 2nd floor windows

Asbestos was identified greater than 1.0% in the above referenced material sampled.

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# Appendix I

## Site Photographs

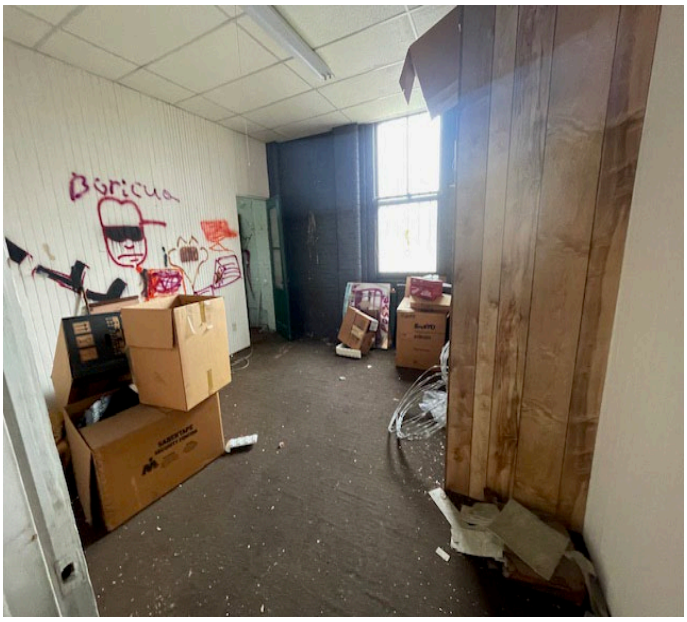

**Location:**

220 Washington Ave
2 Story Brick Building

**Observation:**

HAN306: Residual Mastic

Asbestos containing materials were identified in the above referenced material sampled.



**Location:**

220 Washington Ave
2 Story Brick Building

**Observation:**

Overall existing interior conditions of the inspection site as of 03/24/2025.

Asbestos containing materials were identified in some of the materials sampled for this building.

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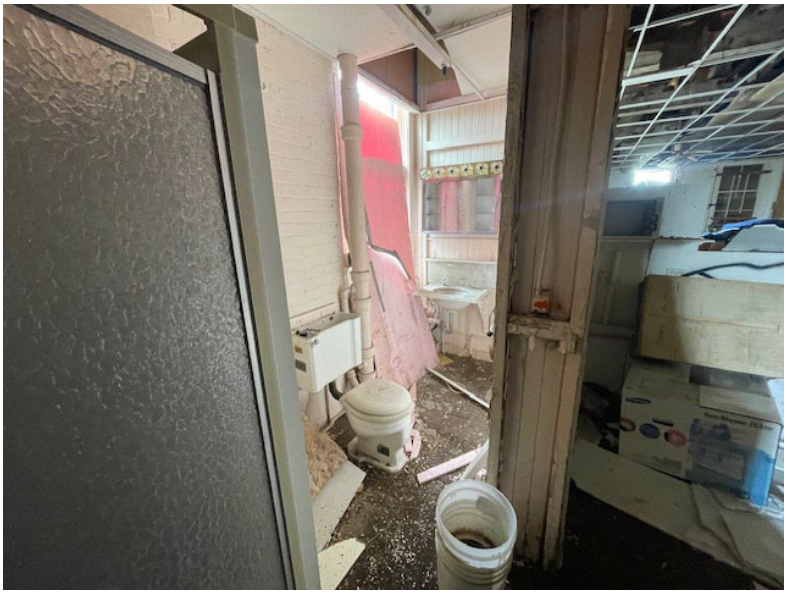
# Appendix I

## Site Photographs



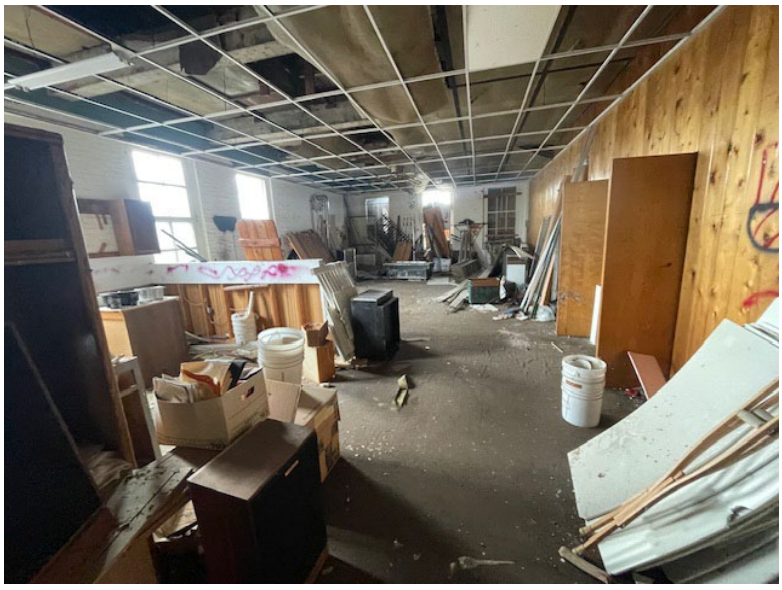
**Location:**

220 Washington Ave
2 Story Brick Building

**Observation:**

Overall existing interior conditions of the inspection site as of 03/24/2025.

Asbestos containing materials were identified in some of the materials sampled for this building.



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**AMD Environmental Consultants, Inc.**
72 E Niagara St. Suite 100
Tonawanda, NY 14150
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

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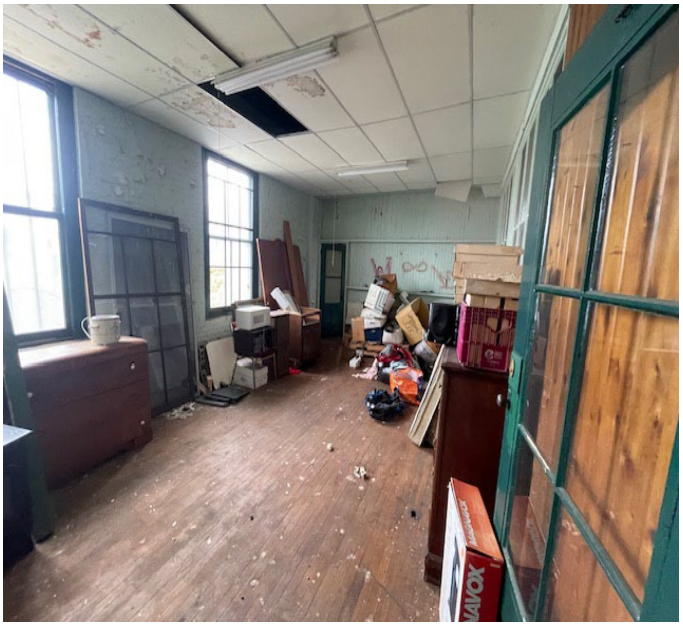

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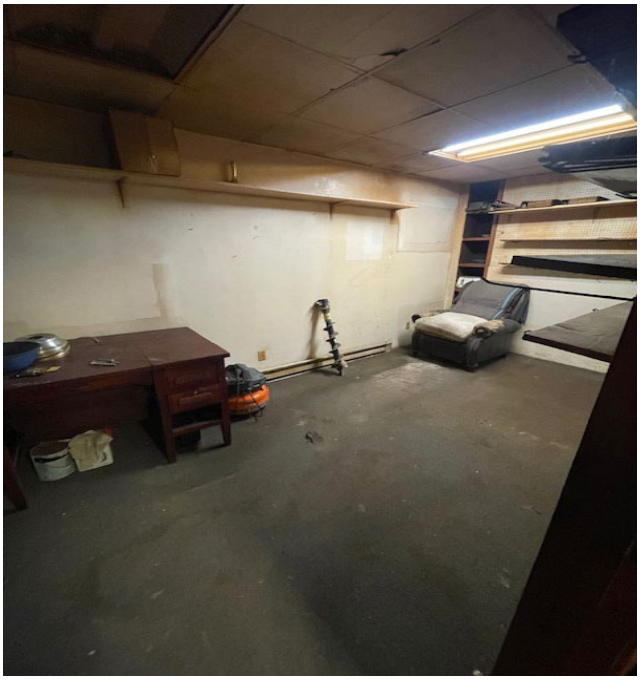

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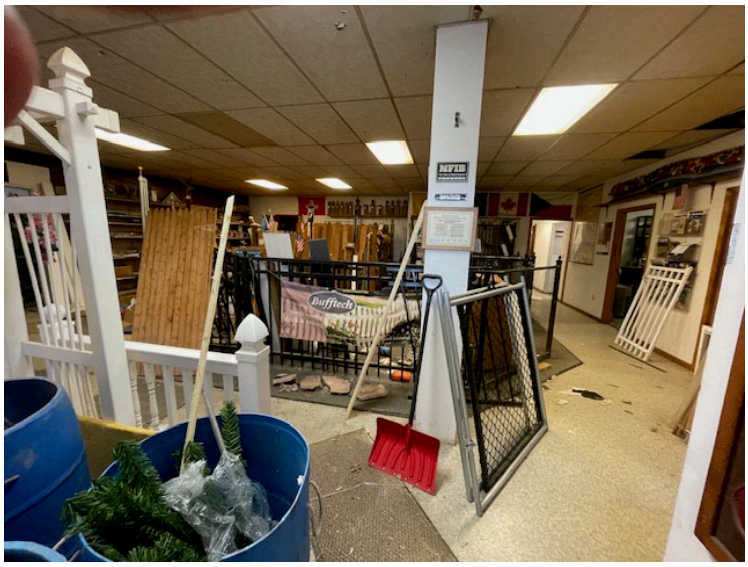

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Overall existing interior conditions of the inspection site as of 03/24/2025.

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# 3.0 Site Map(s)

**AMD Environmental Consultants, Inc.**
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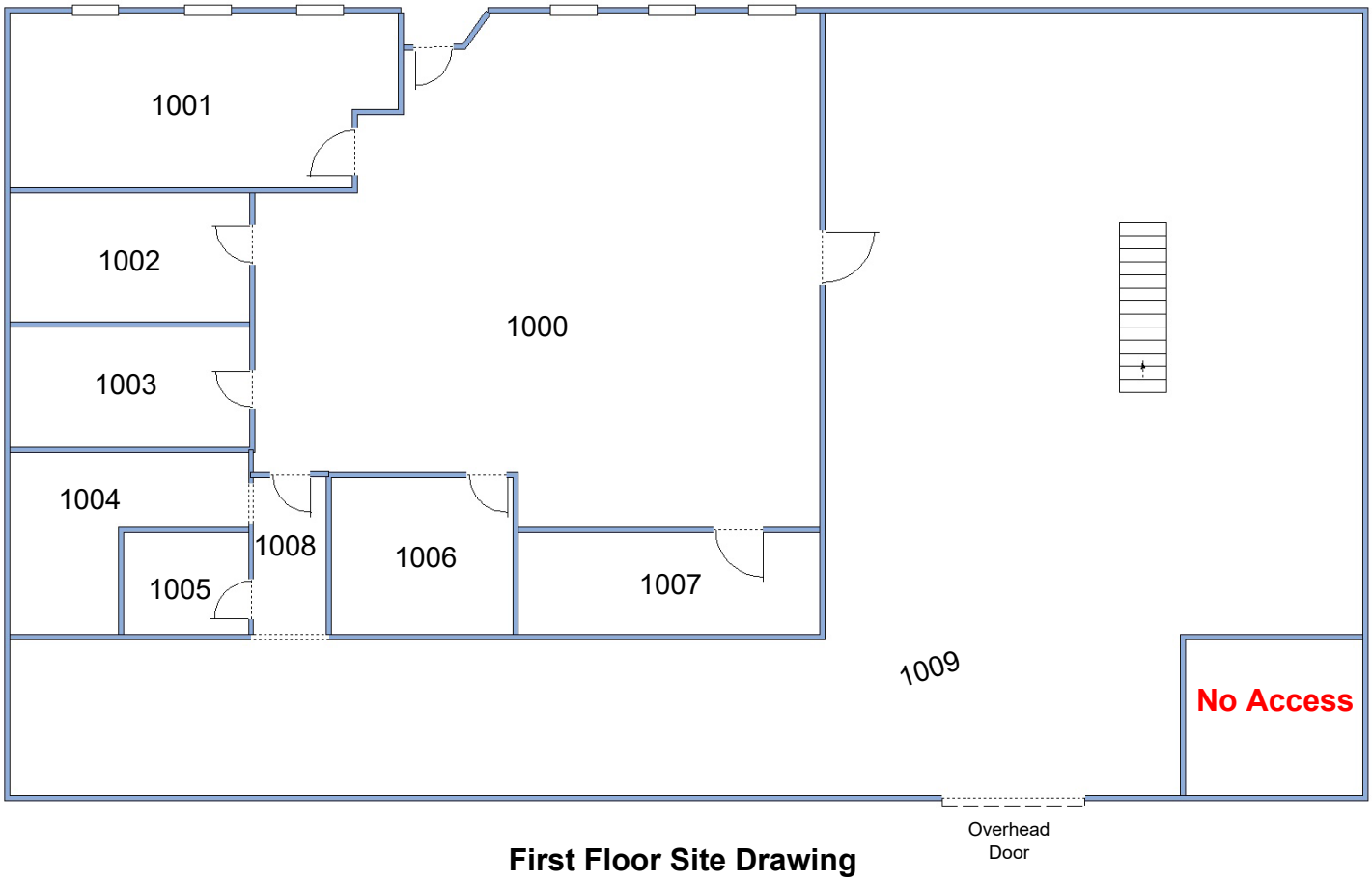
Tonawanda, NY 14150
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

## Aerial View of Inspection Sites:

**AMD Environmental Consultants, Inc.**
72 E Niagara St Suite 100
Tonawanda, NY 14150
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

**Asbestos Inspection Key:**
0000: Space Identification Number (SID)

**Location:** 220 Washington Ave., Dunkirk, NY 14048

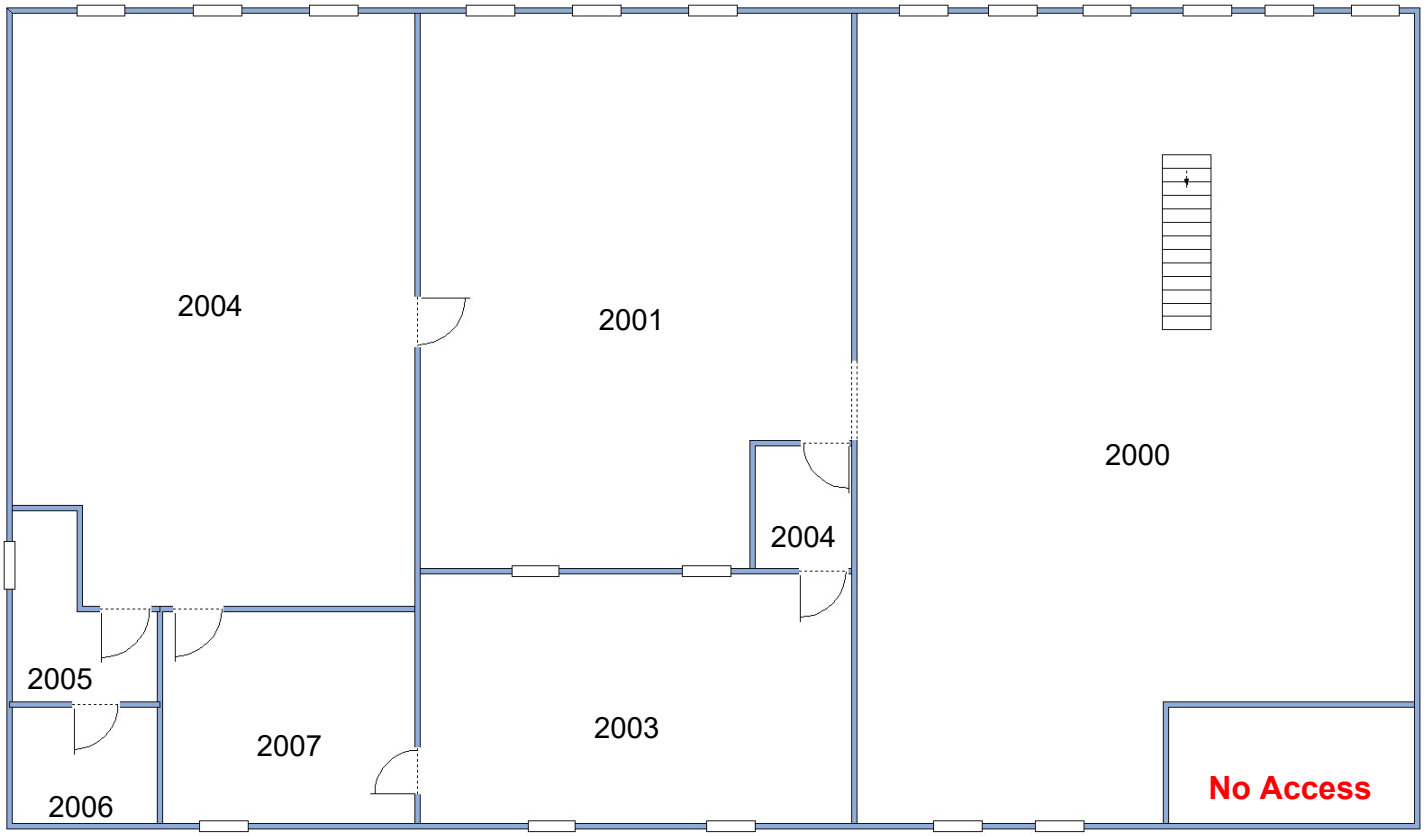



**First Floor Site Drawing**

**AMD Environmental Consultants, Inc.**
72 E Niagara St Suite 100
Tonawanda, NY 14150
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

**Asbestos Inspection Key:**
0000: Space Identification Number (SID)

**Location:** 220 Washington Ave., Dunkirk, NY 14048




**Second Floor Site Drawing**

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72 E Niagara St. Suite 100
Tonawanda, NY 14150
Office: 716 833 0043
Fax: 716 241 8689
www.amdenvironmental.com

# 4.0 Laboratory Analytical Results

# ERA Analytical, LLC

3225 Grand Island Boulevard, Unit 7, Grand Island, NY 14072 Phone - 716.453.1505

## PLM and TEM Bulk Asbestos - NYSDOH ELAP Methods 198.1, 198.4 and 198.6

**Client:** AMD
**Location:** 208 Washington Ave. Dunkirk, NY 14048
**Sample Date:** 3/24/2025

**Job Number:** 0611-25
**Page Number:** 1 of 7
**Sample Received Date:** 3/25/2025

| Client ID | Lab ID | Sampling Location | Sample Color and Description | Sample Type | PLM Asbestos Type & Percentage | PLM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | TEM Asbestos Type & Percentage | TEM Total Asbestos | Non-Fibrous Matrix Percentage |
|---|---|---|---|---|---|---|---|---|---|---|
| **101-1** | 6344 | 1000 | Gray Drywall | Friable | No Asbestos Detected | 0.0% | Cellulose 10.0% | N/A | N/A | 90.0% |
| **101-2** | 6345 | 1000 | Gray Drywall | Friable | No Asbestos Detected | 0.0% | Cellulose 10.0% | N/A | N/A | 90.0% |
| **101A-1** | 6346 | 1000 | White Joint Compound | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **101A-2** | 6347 | 1000 | White Joint Compound | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **102-1** | 6348 | 1005 | White Ceramic Tile Grout | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **102-2** | 6349 | 1005 | White Ceramic Tile Grout | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **102A-1** | 6350 | 1005 | White Ceramic Tile Mastic | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **102A-2** | 6351 | 1005 | White Ceramic Tile Mastic | Friable | No Asbestos Detected | 0.0% | N/A 0.0% | N/A | N/A | 100.0% |
| **201-1** | 6352 | 1008 | Brown Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **201-2** | 6353 | 1008 | Brown Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A 0.0% | No Asbestos Detected | 0.0% | 100.0% |

N/A - Not Applicable

* Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if these materials can be considered or treated as non-asbestos containing.

ELAP ID #12161

**PLM Date Analyzed:** 3/28/2025
**PLM Analyst:** A. Dembski
**Microscope:** Olympus BH-2 #212311

**Results Approved By:** Amy Dembski

**TEM Date Analyzed:** 3/30/2025
**TEM Analyst:** A. Dembski
**Microscope:** Hitachi 600 AB #45-05

Asbestos Technical Director
**Amy Dembski**



Bulk asbestos analysis performed by NYSDOH ELAP Methods 198.1 'Polarized Light Microscope Methods for Identifying and Quantitating Asbestos in Bulk Samples', 198.4 'Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples', and 198.6 'Polarized Light Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples'

# ERA Analytical, LLC

3225 Grand Island Boulevard, Unit 7, Grand Island, NY 14072 Phone - 716.453.1505

## PLM and TEM Bulk Asbestos - NYSDOH ELAP Methods 198.1, 198.4 and 198.6

**Client:** AMD
**Location:** 208 Washington Ave. Dunkirk, NY 14048
**Sample Date:** 3/24/2025

**Job Number:** 0611-25
**Page Number:** 2 of 7
**Sample Received Date:** 3/25/2025

| Client ID | Lab ID | Sampling Location | Sample Color and Description | Sample Type | PLM Asbestos Type & Percentage | PLM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | | TEM Asbestos Type & Percentage | TEM Total Asbestos | Non-Fibrous Matrix Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **202-1** | 6354 | 1004 | Gray Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **202-2** | 6355 | 1004 | Gray Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **203-1** | 6356 | 1005 | Gray Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **203-2** | 6357 | 1005 | Gray Ceiling Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **300-1** | 6358 | 1008 | Gray 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **300-2** | 6359 | 1008 | Gray 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **300A-1** | 6360 | 1005 | Yellow Mastic | NOB | <1.0% Residue Non-ACM PLM and TEM Not Required | N/A | N/A | N/A | N/A | N/A | N/A |
| **300A-2** | 6361 | 1005 | Yellow Mastic | NOB | <1.0% Residue Non-ACM PLM and TEM Not Required | N/A | N/A | N/A | N/A | N/A | N/A |
| **301-1** | 6362 | 1000 | Gray Linoleum | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **301-2** | 6363 | 1000 | Gray Linoleum | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |

N/A - Not Applicable

* Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if these materials can be considered or treated as non-asbestos containing.

ELAP ID #12161

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**PLM Analyst:** A. Dembski
**Microscope:** Olympus BH-2 #212311

**Results Approved By:**

**TEM Date Analyzed:** 3/30/2025
**TEM Analyst:** A. Dembski
**Microscope:** Hitachi 600 AB #45-05

Asbestos Technical Director
**Amy Dembski**



Bulk asbestos analysis performed by NYSDOH ELAP Methods 198.1 'Polarized Light Microscope Methods for Identifying and Quantitating Asbestos in Bulk Samples', 198.4 'Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples', and 198.6 'Polarized Light Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples'

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**Job Number:** 0611-25
**Page Number:** 3 of 7
**Sample Received Date:** 3/25/2025

| Client ID | Lab ID | Sampling Location | Sample Color and Description | Sample Type | PLM Asbestos Type & Percentage | PLM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | | TEM Asbestos Type & Percentage | TEM Total Asbestos | Non-Fibrous Matrix Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **302-1** | 6364 | 1002 | Brown Carpet Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **302-2** | 6365 | 1002 | Brown Carpet Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **303-1** | 6366 | 1000 | White 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **303-2** | 6367 | 1000 | White 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **303A-1** | 6368 | 1000 | Black Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **303A-2** | 6369 | 1000 | Black Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **304-1** | 6370 | 1005 | Gray 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **304-2** | 6371 | 1005 | Gray 12x12 Floor Tile | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **305-1** | 6372 | 1004 | Gray Drywall Flooring | Friable | No Asbestos Detected | 0.0% | N/A | 0.0% | N/A | N/A | 100.0% |
| **305-2** | 6373 | 1004 | Gray Drywall Flooring | Friable | No Asbestos Detected | 0.0% | N/A | 0.0% | N/A | N/A | 100.0% |

N/A - Not Applicable

* Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if these materials can be considered or treated as non-asbestos containing.

ELAP ID #12161

**PLM Date Analyzed:** 3/28/2025
**PLM Analyst:** A. Dembski
**Microscope:** Olympus BH-2 #212311

**Results Approved By:** Amy Dembski

**TEM Date Analyzed:** 3/30/2025
**TEM Analyst:** A. Dembski
**Microscope:** Hitachi 600 AB #45-05

Asbestos Technical Director
**Amy Dembski**



Bulk asbestos analysis performed by NYSDOH ELAP Methods 198.1 'Polarized Light Microscope Methods for Identifying and Quantitating Asbestos in Bulk Samples', 198.4 'Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples', and 198.6 'Polarized Light Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples'

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**Sample Date:** 3/24/2025

**Job Number:** 0611-25
**Page Number:** 4 of 7
**Sample Received Date:** 3/25/2025

| Client ID | Lab ID | Sampling Location | Sample Color and Description | Sample Type | PLM Asbestos Type & Percentage | PLM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | | TEM Asbestos Type & Percentage | TEM Total Asbestos | Non-Fibrous Matrix Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **306-1** | 6374 | 1009 | Brown Residual Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | Tremolite 2.4% | 2.4% | 100.0% |
| **306-2** | 6375 | 1009 | Brown Residual Mastic | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | Positive Stop Sample Not Analyzed | N/A | 100.0% |
| **307-1** | 6376 | 2006 | Red Linoleum | NOB | <1.0% Residue Non-ACM PLM and TEM Not Required | N/A | N/A | N/A | N/A | N/A | N/A |
| **307-2** | 6377 | 2006 | Red Linoleum | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **600-1** | 6378 | 2001 | Tan Window Glazing | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **600-2** | 6379 | 2001 | Tan Window Glazing | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| **601-1** | 6380 | Ext. East Side | Gray Window Glazing | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | Anthophyllite 1.5% | 1.5% | 100.0% |
| **601-2** | 6381 | Ext. East Side | Gray Window Glazing | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | Positive Stop Sample Not Analyzed | N/A | 100.0% |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

N/A - Not Applicable

* Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if these materials can be considered or treated as non-asbestos containing.

ELAP ID #12161

**PLM Date Analyzed:** 3/28/2025
**PLM Analyst:** A. Dembski
**Microscope:** Olympus BH-2 #212311

**Results Approved By:**

Asbestos Technical Director
**Amy Dembski**

**TEM Date Analyzed:** 3/30/2025
**TEM Analyst:** A. Dembski
**Microscope:** Hitachi 600 AB #45-05



Bulk asbestos analysis performed by NYSDOH ELAP Methods 198.1 'Polarized Light Microscope Methods for Identifying and Quantitating Asbestos in Bulk Samples', 198.4 'Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples', and 198.6 'Polarized Light Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples'

# ERA Analytical, LLC

3225 Grand Island Boulevard, Unit 7, Grand Island, NY 14072 Phone - 716.453.1505

## PLM and TEM Bulk Asbestos - NYSDOH ELAP Methods 198.1, 198.4 and 198.6

**Client:** AMD
**Location:** 208 Washington Ave. Dunkirk, NY 14048
**Sample Date:** 3/24/2025
**Job Number:** 0621-25
**Page Number:** 1 of 2
**Sample Received Date:** 3/25/2025

| Client ID | Lab ID | Sampling Location | Sample Color and Description | Sample Type | PLM Asbestos Type & Percentage | PLM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | | TEM Asbestos Type & Percentage | TEM Total Asbestos | Non-Fibrous Matrix Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 602-1 | 6480 | Ext. North Side | Black Vapor Barrier | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| 602-2 | 6481 | Ext. North Side | Black Vapor Barrier | NOB | Inconclusive No Asbestos Detected | 0.0% | N/A | 0.0% | No Asbestos Detected | 0.0% | 100.0% |
| | | | | | | | | | | | |
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ELAP ID #12161

**PLM Date Analyzed:** 3/28/2025
**PLM Analyst:** A. Dembski
**Microscope:** Olympus BH-2 #212311

**Results Approved By:** Amy Dembski

**TEM Date Analyzed:** 3/28/2025
**TEM Analyst:** A. Dembski
**Microscope:** Hitachi 600 AB #45-05

Asbestos Technical Director
**Amy Dembski**



Bulk asbestos analysis performed by NYSDOH ELAP Methods 198.1 'Polarized Light Microscope Methods for Identifying and Quantitating Asbestos in Bulk Samples', 198.4 'Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples', and 198.6 'Polarized Light Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples'

**AMD Environmental Consultants, Inc.**
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Tonawanda, NY 14150
Office: 716 833 0043
Fax: 716 241 8689
www.amdenvironmental.com

## 4.1 Analytical Key Terms and Definitions

**PLM:** Polarized Light Microscopy; type of analysis

**TEM:** Transmission Electron Microscopy; secondary analysis if applicable

**NOB:** Non-Friable Organically Bound; materials analyzed by PLM or TEM

**NAD:** No asbestos detected

**NA:** Not applicable

**PS:** Positive Stop

**Trace:** Less than 1% asbestos (Non ACM)

**ACM:** Asbestos Containing Material

**AMD Environmental Consultants, Inc.**
72 E Niagara St. Suite 100
Tonawanda, NY 14150
Office: 716 833 0043
Fax: 716 241 8689
www.amdenvironmental.com

# 5.0 Sample Chain(s) of Custody

AMD ENVIRONMENTAL

72 E. Niagara St. Suite 100
Tonawanda, NY 14150
NYS ELAP ID: 11108

Lab (716) 833-0043 x104
fax (716) 241-8689
labs@amdenv.com

# Bulk Sampling Chain of Custody

208 Washington Ave
Project Address

Dunkirk, NY, 14048
City, State, Zip Code

25-0324MB-A
Project ID No.

Whole Building
Affected Area/Work Area

BE 3
Client Name/Company

Jason M. Bryggs
Client Contact

Client Phone

Client Email

**Turn-Around Time Requested:**
*(Please check one)*
☐ RUSH ☐ 24 HR
☑ 3 DAY ☐ 5 DAY
☐ OTHER _____
*Evening, weekend, & RUSH charges apply. Please confirm with laboratory.*

**Sample Date:** 3/24/25

**Analysis:**
☑ PLM ☑ Positive Stop ☑ TEM
*Samples analyzed by PLM according to NYS ELAP 198.1*

| Sample No. (1 sample / line) | Sample Location | Sample Description | ** LAB USE ONLY ** Sample ID | Sample Condition |
|---|---|---|---|---|
| 101-1 | 1000 | Dry wall | 6344 | |
| 101-2 | 1000 | Dry wall | -45 | |
| 101A-1 | 1000 | Joint Compound | -46 | |
| 101A-2 | 1000 | Joint Compound | -47 | |
| 102-1 | 1005 | Ceramic Tile- grout | -48 | |
| 102-2 | 1005 | Ceramic Tile - grout | -49 | |
| 102A-1 | 1005 | Ceramic Tile- mastic | -50 | |
| 102A-2 | 1005 | Ceramic Tile- mastic | -51 | |
| 201-1 | 1008 | 2x4 white texture C.T. | -52 | |
| 201-2 | 1008 | 2x4 white texture C.T. | -53 | |
| 202-1 | 1004 | 2x2 Dot + Fissure C.T. | -54 | |
| 202-2 | 1004 | 2x2 Dot + Fissure C.T. | -55 | |
| 203-1 | 1005 | 2x2 Dot C.T. | -56 | |
| 203-2 | 1005 | 2x2 Dot C.T. | -57 | |

| Sampled By (Print Name) | Sampled by Signature | ** For Lab Use Only ** Received by (Print Name) | Date | Time |
|---|---|---|---|---|
| Matthew Beauregard | | A. Dombski | 3/25/25 | 1510 |

| Relinquished to Lab By (Signature) | Date | Time | Lab Personnel Signature | Lab Batch No. | Samples Prepped By: |
|---|---|---|---|---|---|
| | 3/25/25 | 1500 Drop Off | A. Dombski | 0611-25 | |

Site Notes:

**Send Results:** Call w/ Results E-mail Fax
*(Please Circle One)*
Name: _____
Email/Phone/Fax: _____
*Lab Notes / Sample Condition:*

AMD ENVIRONMENTAL

72 E. Niagara St. Suite 100
Tonawanda, NY 14150
NYS ELAP ID: 11108

Lab (716) 833-0043 x104
fax (716) 241-8689
labs@amdenv.com

# Bulk Sampling Chain of Custody

208 Washington Ave
Project Address

Dunkirk, NY, 14048
City, State, Zip Code

25-0324MB-A
Project ID No.

Whole Building
Affected Area/Work Area

BE3
Client Name/Company

Jason M. Brown
Client Contact

Client Phone

Client Email

**Turn-Around Time Requested:**
*(Please check one)*
☐ RUSH ☐ 24 HR
☑ 3 DAY ☐ 5 DAY
☐ OTHER _____
*Evening, weekend, & RUSH charges apply. Please confirm with laboratory.*

Sample Date: 3/24/25

**Analysis:**
☑ PLM ☐ Positive Stop ☑ TEM
*Samples analyzed by PLM according to NYS ELAP 198.1*

| Sample No. (1 sample / line) | Sample Location | Sample Description | ** LAB USE ONLY ** Sample ID | Sample Condition |
|---|---|---|---|---|
| 300-1 | 1008 | Gray + white 12X12 F.T. | 6358 | |
| 300-2 | 1008 | Gray + white 12X12 F.T. | -59 | |
| 300A-1 | 1005 | Yellow mastic of 300 | -60 | |
| 300A-2 | 1005 | Yellow mastic of 300 | -61 | |
| 301-1 | 1000 | Yellow + Gray Lino. | -62 | |
| 301-2 | 1000 | Yellow + Gray Lino. | -63 | |
| 302-1 | 1002 | Carpet mastic | -64 | |
| 302-2 | 1002 | Carpet mastic | -65 | |
| 303-1 | 1000 | white 12X12 F.T. | -66 | |
| 303-2 | 1000 | white 12X12 F.T. | -67 | |
| 303A-1 | 1000 | Black mastic of 303 | -68 | |
| 303A-2 | 1000 | Black mastic of 303 | -69 | |
| 304-1 | 1005 | Blue/Gray 12X12 F.T. | -70 | |
| 304-2 | 1005 | Blue/Gray 12X12 F.T. | -71 | |

Matthew Beaulieu
Sampled By (Print Name)

Sampled by Signature

3/25/25 1500
Date Time
Relinquished to Lab By (Signature)

Drop Off

Site Notes:

** For Lab Use Only **

A. Dimbski | 3/25/25 | 1510
Received by (Print Name) | Date | Time

C. Dimbski | 0611-25
Lab Personnel Signature | Lab Batch No.

Samples Prepped By:

**Send Results:** Call w/ Results E-mail Fax
*(Please Circle One)*

Name: _____

Email/Phone/Fax: _____

*Lab Notes / Sample Condition:*

AMD ENVIRONMENTAL

72 E. Niagara St. Suite 100
Tonawanda, NY 14150
NYS ELAP ID: 11108

Lab (716) 833-0043 x104
fax (716) 241-8689
labs@amdenv.com

# Bulk Sampling Chain of Custody

208 Washington Ave
Project Address

Dunkirk, NY, 14048
City, State, Zip Code

25-0324MB-A
Project ID No.

Whole Building
Affected Area/Work Area

BE 3
Client Name/Company

Jason M. Brygacs
Client Contact

Client Phone

Client Email

**Turn-Around Time Requested:**
*(Please check one)*
☐ RUSH ☐ 24 HR
☑ 3 DAY ☐ 5 DAY
☐ OTHER _____
*Evening, weekend, & RUSH charges apply. Please confirm with laboratory.*

Sample Date: 3/24/25

**Analysis:**
☑ PLM ☑ Positive Stop ☑ TEM
*Samples analyzed by PLM according to NYS ELAP 198.1*

| Sample No. (1 sample / line) | Sample Location | Sample Description | ** LAB USE ONLY ** Sample ID | Sample Condition |
|---|---|---|---|---|
| 305-1 | 1004 | Drywall Flooring | 6372 | |
| 305-2 | 1004 | Drywall Flooring | -77 | |
| 306-1 | 1009 | Residual Mastic | -74 | |
| 306-2 | 1009 | Residual Mastic | -75 | |
| 307-1 | 2006 | Lino- Red Brick | -76 | |
| 307-2 | 2006 | Lino - Red Brick | -77 | |
| 600-1 | 2001 | window glazing - Interior | -78 | |
| 600-2 | 2001 | window glazing - Interior | -79 | |
| 601-1 | Ext. East Side | window glazing - Exterior | -80 | |
| 601-2 | Ext. East Side | window glazing - Exterior | -81 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Matthew Blaukat
Sampled By (Print Name)

Sampled by Signature

3/25/25 1599
Relinquished to Lab By (Signature) — Date — Time

Drop Off

Site Notes:

** For Lab Use Only **

A. Dembski | 3/25/25 | 1510
Received by (Print Name) | Date | Time

A. Dembski | 0611-25
Lab Personnel Signature | Lab Batch No.

Samples Prepped By:

**Send Results:** Call w/ Results E-mail Fax
*(Please Circle One)*
Name: _____
Email/Phone/Fax: _____
*Lab Notes / Sample Condition:*

AMD ENVIRONMENTAL

72 E. Niagara St. Suite 100
Tonawanda, NY 14150
NYS ELAP ID: 11108

Lab (716) 833-0043 x104
fax (716) 241-8689
labs@amdenv.com

# Bulk Sampling Chain of Custody

208 Washington Ave.
Project Address

Dunkirk, NY 14048
City, State, Zip Code

25-0324MB-A
Project ID No.

Wood Frame Barn
Affected Area/Work Area

BE 3
Client Name/Company

Jason Brydges
Client Contact

Client Phone

Client Email

**Turn-Around Time Requested:**
*(Please check one)*
☐ RUSH ☐ 24 HR
☒ 3 DAY ☐ 5 DAY
☐ OTHER _____
*Evening, weekend, & RUSH charges apply. Please confirm with laboratory.*

Sample Date: 3/24/25

**Analysis:**
☒ PLM ☐ Positive Stop ☒ TEM
*Samples analyzed by PLM according to NYS ELAP 198.1*

| Sample No. (1 sample / line) | Sample Location | Sample Description | ** LAB USE ONLY ** Sample ID | Sample Condition |
|---|---|---|---|---|
| 602-1 | EXT. North side | Vapor Barrier - under siding | 6480 | |
| 602-2 | EXT. North side | Vapor Barrier - under siding | -81 | |
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| | | | | |

Craig Libsle
Sampled By (Print Name)

Craig Libsle
Sampled by Signature

** For Lab Use Only **

ADombski | 3/25/25 | 1510
Received by (Print Name) | Date | Time

Craig Libsle | 3/25/25 | 1500
Relinquished to Lab By (Signature) | Date | Time

Drop Off

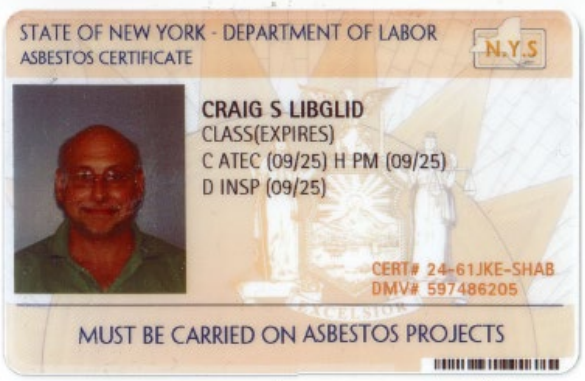
A. Dombski
Lab Personnel Signature

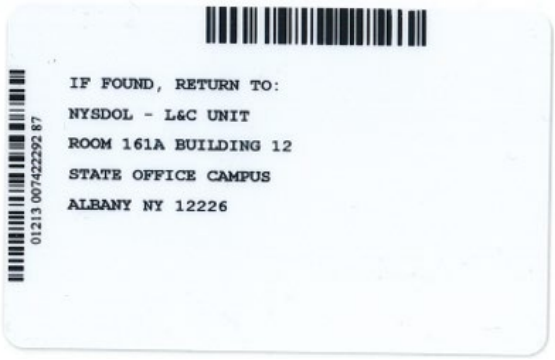
0421-25
Lab Batch No.

Samples Prepped By:

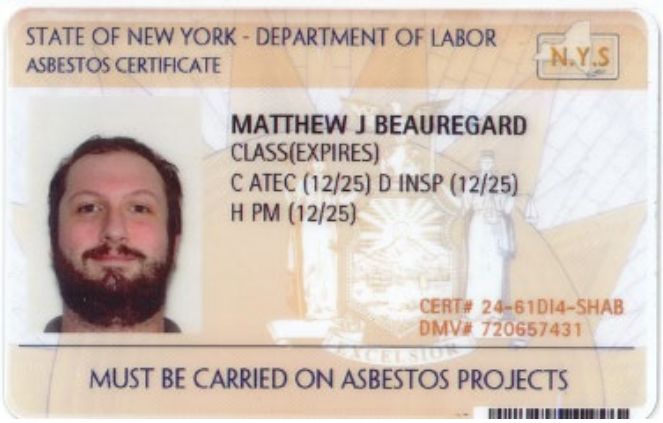
Site Notes:

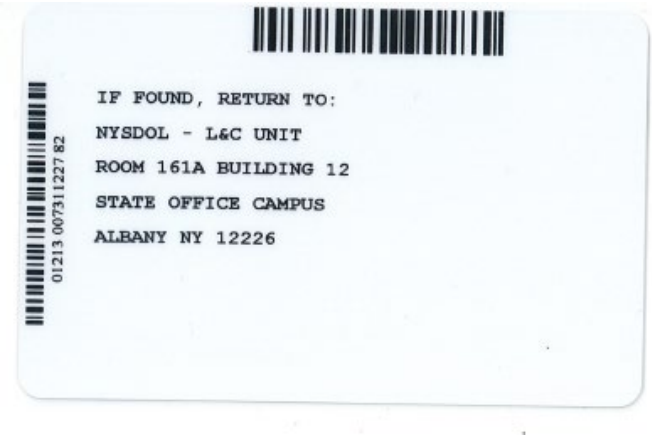
**Send Results:** Call w/ Results E-mail Fax
*(Please Circle One)*
Name: _____
Email/Phone/Fax: _____
*Lab Notes / Sample Condition:*


STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE
N.Y.S
CRAIG S LIBGLID
CLASS(EXPIRES)
C ATEC (09/25) H PM (09/25)
D INSP (09/25)
CERT# 24-61JKE-SHAB
DMV# 597486205
MUST BE CARRIED ON ASBESTOS PROJECTS


IF FOUND, RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12226
01213 007422992 87

**AMD Environmental Consultants, Inc.**
72 E Niagara St Suite 100
Tonawanda, NY 14150
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com



**AMD Environmental Consultants, Inc.**
72 E Niagara St. Suite 100
Tonawanda, NY 14150
Office: 716 833 0043
Fax: 716 241 8689
www.amdenvironmental.com

# Appendix A: Firm Certification and Personnel License(s)

WE ARE YOUR DOL

NEW YORK STATE | Department of Labor

DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT, STATE OFFICE CAMPUS, BLDG. 12, ALBANY, NY 12226

# ASBESTOS HANDLING LICENSE

AMD Environmental Consultants, Inc.
72 E. Niagara Street, Suite 100, Tonawanda, NY, 14150

License Number: 56177
License Class: RESTRICTED
Date of Issue: 10/15/2024
Expiration Date: 11/30/2025
Duly Authorized Representative: Anthony DeMiglio

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Amy Phillips, Director
For the Commissioner of Labor

EXCELSIOR

SH 432 (12/21)

**AMD Environmental Consultants, Inc.**
72 E Niagara St. Suite 100
Tonawanda, NY 14150
Office: 716 833 0043
Fax: 716 241 8689
www.amdenvironmental.com

# Appendix B: Laboratory Certification

**NEW YORK STATE DEPARTMENT OF HEALTH**
**WADSWORTH CENTER**

Expires 12:01 AM April 01, 2025
Issued April 01, 2024
Revised January 22, 2025

## CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

*Issued in accordance with and pursuant to section 502 Public Health Law of New York State*

*MS. AMY L. DEMBSKI*
*ERA ANALYTICAL, LLC*
*3225 GRAND ISLAND BOULEVARD UNIT 7*
*GRAND ISLAND, NY 14072*

*NY Lab Id No: 12161*

*is hereby APPROVED as an Environmental Laboratory for the category*
*ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE*
*All approved subcategories and/or analytes are listed below:*

**Miscellaneous**

| | |
|---|---|
| Asbestos in Friable Material | Item 198.1 of Manual |
| | EPA 600/M4/82/020 |
| Asbestos in Non-Friable Material-PLM | Item 198.6 of Manual (NOB by PLM) |
| Asbestos in Non-Friable Material-TEM | Item 198.4 of Manual |

Serial No.: 69922