
REMEDIAL INVESTIGATION REPORT

for

SUTTER CROSSING **600 Sutter Avenue and 350 Sheffield Avenue** **Brooklyn, New York** **NYSDEC BCP Site No. C224331**

Prepared For:

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LANGAN

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LIST OF ACRONYMS

Acronym	Definition
AAI	All Appropriate Inquiries
AOC	Area of Concern
AST	Aboveground Storage Tank
ASTM	ASTM International
AES	Atomic Emission Spectrometry
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	Below Grade Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CAMP	Community Air Monitoring Program
COC	Contaminants of Concern
CSM	Conceptual Site Model
CVOC	Chlorinated Volatile Organic Compounds
DER	Division of Environmental Remediation
DOT	Department of Transportation
DUSR	Data Usability Summary Report
el.	Elevation
ELAP	Environmental Laboratory Approval Program
ESA	Environmental Site Assessment
ESI	Environmental Site Investigation
eV	Electron Volt
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FWRIA	Fish and Wildlife Resources Impact Analysis
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HDPE	High-Density Polyethylene
HSWDS	Hazardous Substance Waste Disposal Site
ICP	Inductively Coupled Plasma
IDW	Investigation-Derived Waste
IRM	Interim Remedial Measure
L/min	Liters per Minute
µg/m ³	Micrograms per Cubic Meter
µg/L	Micrograms per Liter
mg/kg	Milligrams per Kilogram
mL	Milliliters
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NAPL	Non-Aqueous Phase Liquid

Acronym	Definition
NAVD88	North American Vertical Datum of 1988
NTU	Nephelometric Turbidity Units
NYC	New York City
NYCRR	New York Codes, Rules, and Regulations
NYSDOH	New York State Department of Health
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonic Acid
PID	Photoionization Detector
PPE	Personal Protective Equipment
ppm	Parts per Million
ppb	Parts per Billion
ppt	Parts per Trillion
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
RAWP	Remedial Action Work Plan
REC	Recognized Environmental Condition
RI	Remedial Investigation
RL	Reporting Limit
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RU	Residential Use
RURR	Restricted Use Restricted-Residential
SCO	Soil Cleanup Objective
SEMS	Superfund Enterprise Management System
SGV	Ambient Water Quality Standards and Guidance Values for Class GA water
SMP	Site Management Plan
SVI	Soil Vapor Intrusion
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
ULURP	Uniform Land Use Review Procedure
UN	United Nations

Acronym	Definition
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UU	Unrestricted Use
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound

CERTIFICATION

I, Michael D. Burke, PG, certify that I am currently a New York State registered Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division 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.



Michael D. Burke, PG, CHMM

1.0 INTRODUCTION

This Remedial Investigation Report (RIR) was prepared on behalf of Sutter Crossing Apartments, L.P. (the Volunteer) for the development at 600 Sutter Avenue and 350 Sheffield Avenue in the East New York neighborhood of Brooklyn, New York (the Site). The Volunteer executed a Brownfield Cleanup Agreement (BCA) on January 28, 2022 to remediate the Site under the oversight of the New York State Department of Environmental Conservation (NYSDEC) in the New York State Brownfield Cleanup Program (BCP Site No. C224331). BCA Amendment #1 was executed on April 21, 2022 to update the Site boundary after tax lot mergers became effective.

This RIR presents environmental data and findings from the Remedial Investigation (RI) completed between May 22 and June 2, 2023, and soil vapor intrusion (SVI) evaluation within the supermarket building on October 3, 2024. The RI was completed by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) and was conducted in accordance with Title 6 of the Official Compilation of NYCRR Part 375-1, 3.8, 6.8, NYSDEC DER-10, and applicable New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, with updates (SVI Guidance).

The objectives of this RI include:

- Define the nature and extent of contamination in soil, soil vapor, and groundwater at or emanating from the Site
 - Generate sufficient data to evaluate remedial action alternatives and prepare a Remedial Action Work Plan (RAWP)
 - Generate sufficient data to evaluate known and potential threats to human health and the environment
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2.0 SITE PHYSICAL CHARACTERISTICS

2.1 Site Description

The Site is at 600 Sutter Avenue and 350 Sheffield Avenue (Mary Warren Place) in the East New York neighborhood of Brooklyn, New York and is identified as Block 3770, Lot 22 and Lot 100, respectively. Lots 22 and 100 are two discontinuous lots, on the Brooklyn Tax Map. A Site location map is provided as Figure 1. Lot 22, located in the northern part of Block 3770, is 13,650 square feet (0.31 acres) in area and developed with an approximately 2,550-square-foot one-story building with a cellar. The remainder of Lot 22 is an asphalt-paved parking lot. Lot 22 has been utilized as a supermarket and parking lot from at least 2020 through to present day. Lot 100, located in the southeastern part of Block 3770, is 11,400 square feet (0.26 acres) in area and is a vacant asphalt-paved lot. The current development plans include demolishing and removing the supermarket and asphalt and constructing two new eight-story mixed-use residential and commercial buildings, one on each lot. The proposed building on Lot 22 (Building 1) will provide 12,837 square feet of retail space on the ground floor and 89 affordable residential units above the commercial space. The proposed building on Lot 100 (Building 2) will provide a community facility on the ground floor and 47 affordable residential units above the community facility. The Site extents and locations of the proposed Buildings 1 and 2 are shown on the Site plan provided as Figure 2.

Lot 22 is within a C4-3 district and Lot 100 is within R6 and C2-3 districts. R6 districts are widely mapped in built-up, medium-density areas in Brooklyn, Queens, and the Bronx. C4 districts are regional commercial centers outside of the central business districts. C4-3 districts specifically are mapped in more densely built areas. C2 districts are commercial overlays mapped within residential districts. The proposed development would require an amendment to the zoning laws and an amendment to the current zoning map. The zoning map and text amendments are subject to approval by the New York City (NYC) Planning Commission through the Uniform Land Use Review Procedure (ULURP) to realign the zoning laws with the proposed development. The project requires zoning special permits through the NYC Department of City Planning.

2.2 Surrounding Property Land Use

The Site is in a mixed-use urban area with multi-story institutional, commercial, manufacturing, and residential buildings. A land use map showing the adjacent and surrounding properties is provided as Figure 3. The following is a summary of surrounding property usage:

Direction	Block	Lot	Adjoining Properties	Surrounding Properties
Lot 22 (Building 1)				
North	3753	1 and 36-44	Sutter Avenue followed by a series of 3-story mixed-use	Vacant lot, parking facilities, warehouses, multi-story residential

Direction	Block	Lot	Adjoining Properties	Surrounding Properties
Lot 22 (Building 1)				
			residential and commercial buildings	buildings, and a factory/industrial building.
East	3371	7501	Sheffield Avenue followed by a 7-story mixed-use residential and commercial building	Multi-story residential buildings and public facilities
South	3770	1 and 70	Two 6-story residential buildings, maintenance yard, playground, and plaza	Vacant lot, multi-story residential buildings
West	3769	1	Georgia Avenue followed by a 6-story residential building	Multi-story residential buildings, public facilities, multi-story mixed-use residential and commercial buildings

Direction	Block	Lot	Adjoining Properties	Surrounding Properties
Lot 100 (Building 2)				
North	3770	70	A 6-story residential building and playground	Parking facilities, warehouses, multi-story residential buildings
East	3371	5 and 101-105	Sheffield Avenue followed by a 4-story and four 2-story residential buildings	Multi-story residential buildings, and public facilities
South	3770	1	A 6-story residential building	
West	3770	1	Vacant yard with ramp to underground parking, maintenance yard, and plaza	

Land use within a half-mile radius includes residential, commercial, light-industrial and institutional uses and parkland. Public infrastructure (storm drains, sewers, and underground utility lines) exists within the streets surrounding the Site. The nearest ecological receptor is the Fresh Creek, located about 1.3 miles to the south of the Site and leads into the Jamaica Bay. Sensitive receptors, as defined in DER-10, located within a half-mile of the Site include those listed below:

Number	Name (Approximate distance from Site)	Address
1	Performing Arts & Technology High School (about 0.09 miles southwest of the Site)	400 Pennsylvania Avenue Brooklyn, NY 11207

Number	Name (Approximate distance from Site)	Address
2	Hyde Leadership Charter School Brooklyn (about 0.10 miles southwest of the Site)	330 Alabama Avenue 3rd Floor Brooklyn, NY 11207
3	P.S. 328 Phyllis Wheatley (about 0.11 miles southwest of the Site)	330 Alabama Avenue Brooklyn, NY 11207
4	MOHDC Smart Start Nature Academy (about 0.18 miles southwest of the Site)	533 Blake Avenue, 3rd Floor Brooklyn, NY 11207
5	P.S. 149 - Danny Kaye (about 0.19 miles northeast of the Site)	700 Sutter Avenue Brooklyn, NY 11207
6	Brooklyn Gardens Elementary (about 0.21 miles south of the Site)	574 Dumont Avenue Brooklyn, NY 11207
7	School of the Future – Brooklyn (about 0.23 miles southwest of the Site)	574 Dumont Avenue Brooklyn, NY 11207
8	Intermediate School 292 - Margaret S. Douglas (about 0.23 miles northeast of the Site)	301 Vermont Street Brooklyn, NY 11207
9	Achievement First East Brooklyn High School (about 0.25 miles northeast of the Site)	301 Vermont Street Brooklyn, NY 11207
10	Noah's Arc Day Care LLC. (about 0.26 miles northeast of the Site)	457 Belmont Avenue, Apt. 1 Brooklyn, NY 11207
11	Children's Corner (about 0.27 miles south of the Site)	565 Livonia Avenue Brooklyn, NY 11207
12	Grace Christian Educational Center (about 0.32 miles southeast of the Site)	650 Livonia Avenue Brooklyn, NY 11207
13	W. H. Maxwell Career & Technical Education High School (about 0.35 miles north of the Site)	145 Pennsylvania Avenue Brooklyn, NY 11207
14	East New York Family Academy (about 0.36 miles west of the Site)	145 Pennsylvania Avenue Brooklyn, NY 11207
15	P.S. 13 – Roberto Clemente (about 0.36 miles southwest of the Site)	557 Granville Payne Avenue Brooklyn, NY 11207
16	P.S. 53-K (about 0.39 miles southwest of the Site)	720 Livonia Avenue Brooklyn, NY 11207
17	Nat Azaro Children's Center (about 0.43 miles west of the Site)	232 Powell Street Brooklyn, NY 11212
18	Brooklyn School District 19 (about 0.44 miles southwest of the Site)	590 Sheffield Avenue Brooklyn, NY 11207
19	Brownsville Collegiate Charter School (about 0.45 miles north of the Site)	364 Sackman Street, 4th Floor Brooklyn, NY 11212
20	P.S. 190 - Sheffield (about 0.45 miles south of the Site)	590 Sheffield Avenue Brooklyn, NY 11207

Number	Name (Approximate distance from Site)	Address
21	Brooklyn Children Learning Academy - WeeCare (about 0.46 miles northwest of the Site)	91 Junius Street Brooklyn, NY 11212
22	P.S. 150 – Christopher (about 0.47 miles southwest of the Site)	364 Sackman Street Brooklyn, NY 11212
23	Childs Home Daycare (about 0.47 miles southeast of the Site)	427 New Lots Avenue Brooklyn, NY 11207
24	Night and Weekend Child Care (about 0.47 miles south of the Site)	569 Williams Avenue Brooklyn, NY 11207
25	God's Gift Group Family Daycare (about 0.49 miles east of the Site)	852 Blake Avenue Brooklyn, NY 11207
26	Trey Whitfield School (about 0.50 miles southwest of the Site)	17 Hinsdale Street Brooklyn, NY 11207

2.3 Site Physical Conditions

2.3.1 Topography

According to the 2019 United States Geological Survey (USGS) Brooklyn Quadrangle 7.5-minute Series Topographic Map, the Site is at an elevation (el.) of about 35 feet above mean sea level (msl). The topography of the Site generally slopes south towards Jamaica Bay.

2.3.2 Site and Regional Geology

Based on a review of the Geologic Map of New York, Lower Hudson Sheet, by Donald W. Fisher, Yngvar W. Isachsen, and Lawrence V. Rickard, dated 1970, reprinted 1995, the Site is underlain by the Magothy Formation. The Magothy Formation consists of coastal plain deposits, including silty clay, glauconitic sandy clay, sand, and gravel. Bedrock is anticipated between 150 to 200 feet below grade surface (bgs). Geological surface features (e.g., bedrock outcroppings) were not observed at the Site.

Based on findings of the Phase II Environmental Site Investigation (ESI) Report, dated May 2021, the Site is underlain by soil, predominantly consisting of dark-brown to reddish-brown, gray, and tan, fine- to medium-grained sand with varying amounts of medium- and coarse-grained sand, silt, fine gravel, glass, brick, concrete, asphalt, slag, wood, and plastic. This soil was observed from surface grade to varying depths between about 1 and 30 feet bgs. The underlying native soil consists of light-brown and tan, fine- to medium-grained sand and fine gravel.

2.3.3 Site and Regional Hydrogeology

Groundwater flow is typically topographically influenced, as shallow groundwater tends to originate in areas of topographic highs and flow toward areas of topographic lows such as rivers,

stream valleys, ponds, and wetlands. A broader, interconnected hydrogeologic network often governs groundwater flow at depth or in the bedrock aquifer. Groundwater depth and flow direction are also subject to hydrogeologic and anthropogenic variables such as precipitation, evaporation, extent of vegetative cover, and coverage by impervious surfaces. Other factors influencing groundwater include depth to bedrock, the presence of artificial fill, and variability in local geology and groundwater sources or sinks. Groundwater was not encountered in the deepest borings advanced to 44 feet bgs during the May 2021 Phase II ESI, but was encountered during the RI from about 27 to 30 feet bgs. Groundwater flow is presumed to the southeast toward Fresh Creek, located about 1.3 miles to the south.

According to synoptic groundwater level measurements obtained during the RI, groundwater depth was from about 27 to 30 feet bgs and groundwater elevations ranged from about el. 6.65 to el. 6.99 feet North American Vertical Datum of 1988 (NAVD88). Groundwater elevations are highest in the northwestern part of Lot 22 and decrease towards Lot 100, indicating a southerly flow direction. Groundwater contours are shown on Figure 4.

Groundwater in this part of NYC is not used as a potable water source. Potable water for the Site, and generally in NYC, is obtained from surface impoundments in the Croton, Catskill, and Delaware watersheds.

The Federal Emergency Management Agency (FEMA) Effective Flood Insurance Rate Map (FIRM) dated September 5, 2017 (Map Number 3604970217F) shows the Site is in Zone X, which describes an area of minimal flood hazard.

2.3.4 Wetlands

Wetlands were evaluated by reviewing the National Wetlands Inventory and NYSDEC regulated wetlands map. There are no wetlands on or near the Site.

3.0 SITE BACKGROUND

This section describes historical Site use and the proposed redevelopment and provides a summary of the findings from previous environmental investigations. Areas of Concern (AOC) were developed based on a review of the previous reports and are summarized in Section 3.4.

3.1 Historical Site Usage

Historical operations at the Site include millinery (612 Sutter Avenue, 1928-1965) and a dry cleaner (608 Sutter Avenue, 1940-1973 and 570 Sutter Avenue, 1965-1973). The millinery and one of the two dry cleaners were formerly within the anticipated construction redevelopment area on Block 3770, Lot 22

Historical and current use of the adjoining and surrounding properties include drycleaners (1966-present), manufactured gas production and storage (1887-1960), an electrical substation (1966-present), and a metal smelting and refining works (1908-2007).

According to Historical Sanborn Fire Insurance Maps, the Site was in a developed urban area by 1908. Between 1908 and 1974, the Site was occupied with single and multi-story residential and commercial use buildings with cellar levels (Aerial Photography and Sanborn Maps). Commercial and manufacturing operations at the Site included a dry cleaner (1966 to 1977) and furniture store (1966 to 1977). By 1977 all buildings on both lots were removed. Lot 22 was improved with a one-story commercial building at the corner of Sutter and Sheffield Avenues, and the Site remains largely the same through the 2007 Sanborn Map. Currently, there is a supermarket at the corner of Sutter and Sheffield Avenues surrounded by an asphalt cover parking lot on Lot 22. Lot 100 in the southeastern part of the block is vacant with an asphalt cover and is fenced with a gate for access.

3.2 Proposed Redevelopment Plan

The proposed development will include demolition and removal of the existing supermarket and asphalt covers, and construction of two, eight-story mixed-use affordable housing and commercial space buildings, one on Lot 22 and one on Lot 100. The new buildings will add about 135 affordable residential units with community space and commercial tenants. Preliminary development plans are included as Appendix A.

3.3 Summary of Previous Environmental Investigations

The following previous environmental reports and investigations were prepared for Block 3770 and 3769 and includes areas outside of the BCP Site. The following report summaries exclude information from unrelated areas and focus on the lots that are part of the BCP Site. Reports are also included in Appendix B.

September 14, 2020 Phase I Environmental Site Assessment, prepared by Langan

Langan performed a Phase I Environmental Site Assessment (ESA) in accordance with ASTM International Standard E1527-13 and the United States Environmental Protection (USEPA) All Appropriate Inquiries (AAI) Rule. The following Recognized Environmental Conditions (REC) related to the BCP Site were identified:

- Historical Site operations included a millinery (612 Sutter Avenue, 1928-1965) and dry cleaner (608 Sutter Avenue, 1940-1973).
- Historical uses of adjoining properties include four dry cleaners (580 Sutter Avenue, 1966; 583 Sutter Avenue 1976-1983; 601 Sutter Avenue, 1986 to present; and 607 Sutter Avenue 1966-2007), manufactured gas production and storage (577 Sutter Avenue, 1887-1960), an electrical substation (577 Sutter Avenue 1966-present), and a metal smelting and refining works (259 Alabama Avenue, 1908-2007). Two surrounding properties, the former Brooklyn Union Gas and Belmont Works (smelting and refining) facilities, are listed in the Superfund Enterprise Management System (SEMS)-Archive USEPA ID: NYD980532097), Hazardous Substance Waste Disposal Site Inventory (HSWDS) (Facility ID: HS2005), and Voluntary Cleanup Program (VCP) (HW Code: V00709, 224060) databases.

May 4, 2021 Phase II ESI Report, prepared by Langan

A Phase II ESI was completed in December 2020 to investigate the RECs identified in Langan's September 2020 Phase I ESA. The boring and sampling locations referenced in the Phase II ESI are presented on Figure 5. Findings from the Phase II ESI related to the BCP Site are summarized below:

- Geophysical Survey: The geophysical survey identified subsurface anomalies indicative of electrical, gas, sewer, and water lines entering the Site from Sheffield Avenue and Sutter Avenue. Subsurface sewer, electric, and gas lines were identified in exterior areas of the Site. Large geophysical anomalies resembling underground storage tanks (UST) were not identified.
 - Site Geology: A layer of dark brown, reddish brown, gray, and tan, fine-to medium grained sand with varying amounts of medium- and coarse-grained sand, silt, fine gravel, glass, brick, concrete, asphalt, slag, wood, and plastic was encountered from beneath the surface cover at variable depths from about 1 to 30 feet bgs on Block 3770, Lots 22 and 100. The underlying soil generally consists of light brown and tan, fine to medium-grained sand and fine gravel.
 - Soil: Photoionization detector (PID) readings above background concentrations (up to 230 parts per million [ppm]) were detected in borings SB04 (0 to 21 feet bgs) and SB11 (7.5 to 25 feet bgs) on Lot 22 and SB12 (1.5 to 3 and 8.5 to 9.5 feet bgs) on Lot 100.
-

Volatile organic compounds (VOC), polychlorinated biphenyls (PCB), and pesticides were not detected in soil samples above the 6 NYCRR Part 375 Restricted Use Residential (RU) Soil Cleanup Objectives (SCO).

One or more semivolatile organic compounds (SVOC), including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene, were detected at concentrations greater than the RU SCOs from 0 to 4 feet bgs in samples SB03 and SB07 on Block 3770, Lot 22. The highest concentrations of SVOCs were detected at SB03.

One or more metals/inorganics, including barium, copper, and lead, were detected between 0 and 14 feet bgs in soil samples SB03 (Lot 22) and SB07 (Lot 100) at concentrations above the RU SCOs.

- Soil Vapor: The concentration of total VOCs detected in soil vapor ranged from 76.4 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in SV03 to 622 $\mu\text{g}/\text{m}^3$ in SV04 (both on Lot 22). Tetrachloroethene (PCE) and trichloroethene (TCE) were detected in sample SV04 above concentrations at which the NYSDOH decision matrix recommendation ranges from “no further action” to “mitigate”. Petroleum-related VOCs were detected in each soil vapor sample, generally at total concentrations between about 2 and 44 $\mu\text{g}/\text{m}^3$.

3.4 Summary of Potential Areas of Concern

Based on Site observations, historical uses, and findings of the previous environmental reports, potential AOCs were established as part of the Remedial Investigation Work Plan (RIWP) and investigated during the RI. Potential AOCs are described below and shown on Figure 5.

AOC 1: Historical Site Operations

Part of Lot 22 was historically used as a dry cleaner (608 Sutter Avenue, 1940-1973) and a millinery (612 Sutter Avenue, 1928-1965), which may have contributed to the release of hazardous substances, such as petroleum, metals, and chlorinated solvents, to the subsurface. PCE and TCE were detected in soil vapor within the proposed Building 1 footprint during the Phase II ESI above concentrations at which the NYSDOH Decision Matrix recommendation ranges from “no further action” to “mitigate”.

AOC 2: SVOC-, Pesticide- and Metals-impacted Soil

The Phase II ESI identified soil containing SVOCs, pesticides, and metals at concentrations above Unrestricted Use (UU) and/or RU SCOs to depths of up to 22 feet bgs across the Site. Additionally, barium was detected on Lot 22 and Lot 100 above expected background levels. Sources of barium are suspected to be from 1) historical backfilling with used brick after demolition of the dwellings that previously occupied the lots and 2) potential particulate deposits

migrating as airborne particulates from coal ash and coal combustion on adjoining industrial properties (i.e., gasification plant, smelting and refining, rubber manufacturing).

4.0 REMEDIAL INVESTIGATION

The RI was completed between May 22 and June 2, 2023 to investigate potential AOCs and determine, to the extent practical, the nature and extent of contamination in soil, groundwater, and soil vapor. At the request of the NYSDEC, Langan completed an SVI evaluation within the supermarket building and in accordance with the NYSDEC-approved Soil Vapor Intrusion Evaluation Work Plan. The scope of the RI included the field tasks listed below to supplement the data and findings of previous investigations. A summary of samples collected and rationale for each investigation point in relation to the potential AOCs is provided in Table 1. Sample locations and AOCs are presented on Figure 5.

The RI consisted of the following:

- A geophysical survey
- Advancement of nine soil borings (five in Lot 22 and four in Lot 100) to about 16 to 36 feet bgs and collection of 27 soil samples (plus quality assurance/quality control [QA/QC] samples)
- Installation of six permanent groundwater monitoring wells and collection of six groundwater samples (plus QA/QC samples)
- Surveying the elevation of the monitoring well casings and adjacent ground surface
- Synoptic gauging of monitoring wells to evaluate groundwater elevation and flow direction
- Installation of five temporary soil vapor probes and collection of five soil vapor samples and two ambient air samples
- Installation of three sub-slab vapor points within the cellar of the supermarket and collection of sub-slab vapor and co-located indoor air samples to evaluate soil vapor intrusion within the building.

Soil and groundwater samples were collected into laboratory-supplied containers, labeled, placed in a laboratory-supplied cooler, and packed on ice (to maintain a temperature of $4\pm 2^{\circ}\text{C}$). Soil vapor and ambient air samples were collected in labeled 2.7-liter summa canisters. The sample coolers and summa canisters were picked up and delivered via courier under chain-of-custody protocol to York Analytical Laboratories, Inc. (York) in Stratford, Connecticut, a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory (ELAP ID No. 10854).

4.1 Geophysical Survey

On May 22, 2023, NOVA Geophysical Services Inc. (NOVA) of Douglaston, New York completed a geophysical survey under the supervision of Langan field personnel during the RI. NOVA used ground-penetrating radar (GPR) and electromagnetic detection equipment to identify subsurface

utilities and other sub-surface features (e.g., USTs, drums, vaults) prior to intrusive work. RI borings were relocated as necessary to avoid subsurface utilities and anomalies (other subsurface impediments). A copy of the geophysical survey report presenting these findings is included as provided in Appendix C.

4.2 Soil Investigation

4.2.1 Soil Boring Investigation Methodology

Nine soil borings were advanced by Lakewood Environmental Services, Corp. (Lakewood) of Smithtown, New York, using a direct-push Geoprobe 6610DT track mounted drill rig. Boring locations were selected to evaluate potential AOCs listed in Section 3.4 and to supplement the previous environmental investigations. A map showing the boring locations is presented on Figure 5.

Soil borings were advanced to about 16 to 36 feet bgs, as summarized below:

- Borings SB14, SB15, SB16, SB17, SB19, SB21, and SB22 were advanced to 32 to 36 feet bgs (el. 6.8 to - 1.9)
- Borings SB18 and SB20 were advanced to 16 feet bgs (el. 20.4 to 18.9)

Soil samples were collected into 4- or 5-foot-long dedicated liners using a 2-inch diameter Macrocore sampler. Discrete soil samples were collected from the surface to the final depth of each boring and were screened for visual, olfactory, and instrumental evidence of environmental impacts and visually classified for soil type, grain size, texture, and moisture content. Instrument screening for the presence of VOCs was performed with a PID equipped with a 10.6-electron volt (eV) lamp. Langan personnel documented the work, logged the soil type, screened the soil samples for environmental impacts, and collected environmental samples for laboratory analyses. Soil boring logs are presented in Appendix D.

4.2.2 Soil Sampling Methodology

During the RI, 27 grab soil samples were collected for laboratory analysis. Up to three grab soil samples were collected from boring locations SB14 through SB22 to investigate potential AOCs. An additional 12 QA/QC samples were collected, including two duplicates, two matrix spike/matrix spike duplicate [MS/MSD] samples, two field blanks, two per- and polyfluoroalkyl substances [PFAS] field blanks, and four trip blanks. Target sample intervals were as follows:

- Within the upper two feet of the subsurface
 - The bottom of the soil layer containing anthropogenic material
 - The base of expected development excavation (approximately 15 feet bgs) or the first interval of native soil
-

A third sample was not collected from soil boring SB18 where anthropogenic materials were only observed in the upper two feet of the subsurface. Two additional samples (four samples total) were collected at SB22 from an interval of observed (visual, olfactory, and instrumental) impacts followed by the next interval of non-impacted soil.

Samples submitted for VOC analysis were collected directly from the dedicated liner into laboratory-supplied Terra Core soil samplers. The remaining sample volume was homogenized and placed into laboratory-supplied containers for additional analyses. A sample summary is provided as Table 1. Soil samples were analyzed for the following:

- Part 375/Target Compound List (TCL) VOCs by USEPA method 8260C
- SVOCs by USEPA method 8270D
- PCBs by USEPA method 8082A
- Pesticides by USEPA method 8081B
- Herbicides by USEPA method 8151A
- Target Analyte List (TAL) metals, including hexavalent and trivalent chromium, total cyanide by USEPA Methods 6010D/7473 (Mercury) /9010C (Cyanide)/7196A (Chromium)
- NYSDEC List of PFAS by USEPA draft Method 1633
- 1,4-dioxane by USEPA Method 8270D with selected ion monitoring (SIM) isotope dilution

4.3 Groundwater Investigation

4.3.1 Monitoring Well Installation and Development Methodology

Soil borings SB14, SB16, SB17, SB19, SB21, and SB22 were converted into permanent monitoring wells for groundwater monitoring and sampling. Monitoring wells were constructed using 2-inch diameter polyvinyl chloride (PVC) riser pipes attached to 10-foot-long 0.01-inch slotted screen that were placed across the observed groundwater table. The annulus around each well screen was backfilled with No. 2 filter sand to about two feet above the top of the screen. A bentonite seal was installed above the sand filter and extended up to grade surface. The monitoring wells were finished with flush-mount metal manhole covers. Monitoring well locations are presented on Figure 5. Well construction details are summarized in Table 2 and well construction logs are provided in Appendix E.

Following installation, the monitoring wells were surged and developed with a submersible Monsoon pump by removing water until the effluent became clear (having turbidity less than 50 Nephelometric Turbidity Units [NTU]). Purged groundwater was containerized in a labeled 55-gallon United Nations (UN)/Department of Transportation (DOT)-approved drum, characterized, and disposed off-Site (Section 4.8).

The monitoring well top of casings, manhole covers, and adjacent ground surface elevations were surveyed on June 2, 2023. During the same surveying event, Langan field personnel completed a synoptic groundwater level gauging using a Solinst oil/water interface probe. Groundwater elevations were from el. 6.65 in MW19 to el. 6.99 in MW14 and MW17; a complete summary of groundwater elevations is presented in Table 3. A groundwater elevation contour map is presented as Figure 4.

4.3.2 Groundwater Sampling

Groundwater samples were collected on June 1 and 2, 2023, about one week after well installation. Samples were collected in accordance with the USEPA's low-flow groundwater sampling procedure ("Low Stress [low flow] Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells", EQASOP-GW 001, January 19, 2010) to allow for collection of a representative sample. Monitoring wells were purged, and physical and chemical parameters (e.g., temperature, dissolved oxygen, oxygen reduction potential, turbidity) were allowed to stabilize to ranges specified in the USEPA guidance before sampling. Because samples were also collected for PFAS compounds, monitoring wells were not gauged for static water level or drawdown during purging.

Wells were sampled using a GeoSub 2 pump with dedicated high-density polyethylene (HDPE) tubing. Non-disposable, down-hole sampling apparatuses were decontaminated between locations with Alconox and deionized water. Purge water was containerized in a labeled 55-gallon UN/DOT-approved drum, characterized, and disposed off-Site (Section 4.8). Groundwater sampling logs are included in Appendix F.

Six groundwater samples (one sample from each well) were collected for laboratory analysis. An additional six QA/QC samples (including one duplicate, one MS/MSD, one field blank, one PFAS field/rinsate blank, and two trip blanks) were collected. Groundwater samples were analyzed for the following:

- Part 375/TCL VOCs by USEPA method 8260C
 - Part 375 list SVOCs by USEPA method 8270D
 - PCBs by USEPA method 8082A
 - Pesticides by USEPA method 8081B (MW14 and MW19 only)
 - Part 375/TAL metals (total and dissolved), including hexavalent and trivalent chromium, total cyanide by USEPA Methods 6010D/6020B/7470/7196A/SM 4500 CN
 - NYSDEC List of PFAS by USEPA draft Method 1633
 - 1,4-dioxane by USEPA Method 8270 SIM
-

4.4 Soil Vapor Investigation

4.4.1 Soil Vapor Point Installation

Soil vapor points were installed by Lakewood using a Geoprobe 6610DT drill rig and were advanced to about 15 feet bgs (the anticipated development depth). A 2-inch-long polyethylene vapor implant was placed at the bottom of the borehole and threaded to ¼-inch-diameter, Teflon-lined polyethylene tubing extending to the surface. A sand filter pack was installed around the annulus of the implant using No. 2 filter sand to about 13 feet bgs. The remainder of the annulus was filled to surface grade with a hydrated bentonite seal. Soil vapor construction logs are provided in Appendix G.

4.4.2 Soil Vapor and Ambient Air Sampling and Analysis

As a QA/QC measure, an inert tracer gas (helium) was introduced into an above-grade sampling chamber to ensure that the soil vapor sampling points were properly sealed above the target sampling depth, thereby preventing subsurface infiltration of ambient air. Direct readings of less than 10 percent helium in the sampling tube were considered sufficient to verify a tight seal at each sample point.

Each soil vapor point was purged using a MultiRAE meter at a rate less than 0.2 liters per minute (L/min) to evacuate a minimum of three sample-tube volumes prior to sample collection. The purged soil vapor was also monitored for VOCs and the values were recorded. After purging, the soil vapor samples were collected into laboratory-supplied, batch-certified 2.7-liter Summa canisters that were calibrated for two hours of sampling at about 0.02 L/min.

Two ambient air samples were collected (one at each lot), concurrently with soil vapor sampling. Ambient air samples were elevated to about 5 feet above the ground surface to evaluate background air quality conditions. Prior to sample collection, the target area was screened using a MultiRAE meter to identify potential sources of organic vapors that may interfere with the sampling results. The ambient air samples were collected into a laboratory-supplied, batch-certified, 2.7-liter Summa canister calibrated for 2 hours of sampling.

Summa canisters were labeled and transported via courier to York and analyzed for VOCs by USEPA Method TO-15. Soil vapor and ambient air sampling logs are provided in Appendix G.

4.4.3 Sub-Slab Vapor and Indoor Air Investigation

The SVI evaluation fieldwork was performed on October 3, 2024 and included collection of three sub-slab vapor and three co-located indoor air samples within the cellar of the supermarket to evaluate soil vapor intrusion within the building. One ambient air sample was also collected simultaneously to evaluate the potential influence or interference, if any, of outdoor air on indoor air quality.

A New York State One Call notification was made and a NYSDOH indoor air quality questionnaire and chemical product inventory form were completed prior to performing intrusive work, to identify and minimize conditions that may interfere with the soil vapor intrusion evaluation. The building cellar was screened with a PID that could detect organic vapors at concentrations of parts per million (ppm) during the inventory. A copy of the NYSDOH indoor air quality questionnaire and chemical product inventory form, including summaries of the products identified in the sample spaces and the recorded PID readings, is included in Appendix H.

Sub-slab vapor points were installed using a hammer drill to core an approximately 5/8-inch diameter hole through the approximately 6-inch-thick concrete slab. Three sub-slab vapor points (SSV01 through SSV03) were installed through the cores by inserting 3/16-inch-diameter Teflon-lined polyethylene tubing about 2 inches below the bottom of the cellar slab. The collection point annulus (i.e., the sampling zone) around the installed tubing was sealed with hydrated bentonite at grade. Co-located indoor air samples (IA01 through IA03) and one outdoor ambient air sample (AA03) were collected simultaneously from a height of approximately 3 to 5 feet above grade to represent typical breathing zone.

As a quality assurance/quality control measure, an inert tracer gas (helium) was introduced into an above-grade container surrounding the vapor point and seal before and after sample collection to confirm the seal of each sub-slab vapor sampling point was intact. Helium was measured from the sampling tube and inside the container. Direct readings of helium in the sampling tube of less than 10 percent prior to sampling were considered sufficient to verify a tight seal. All sampling points had sufficiently tight seals.

Each sub-slab vapor point was purged using a MultiRAE multi-gas meter at rate of 0.2 liters per minute to evacuate a minimum of three sample tube volumes prior to sample collection. The purged vapor was monitored for total organic vapors. Evidence of petroleum impacts, such as total VOC concentrations above background and/or petroleum-like odors, were not apparent during purging.

The sub-slab vapor, indoor air, and ambient air samples were collected into laboratory-supplied, individually certified clean, 6-liter Summa canisters with flow controllers calibrated for 8 hours of sampling. Summa canisters were labeled and transported via courier under chain-of-custody protocol to York and analyzed for VOC by USEPA Method TO-15.

Following sample collection, the sub-slab vapor points were removed, and the slab was restored to grade with concrete. Sub-slab vapor point construction and sub-slab vapor, indoor air, and ambient air sampling logs are included in Appendix I.

A second round of soil vapor intrusion evaluation within the supermarket on Lot 22 was completed in February 2025, in accordance with the September 2024 SVI Evaluation Work Plan and SVI Evaluation Report and/or Interim Remedial Measure (IRM) Work Plan and will be provided under separate cover.

4.5 Quality Control Sampling

During the RI, field blank, PFAS field blank, trip blank, field duplicate, MS/MSD, and ambient air samples were collected and submitted for laboratory analysis for QA/QC purposes. QA/QC samples are summarized in Table 1 and below:

Sample Media	Quantity	QA/QC Sample
Soil	2	Field Blanks
	2	PFAS Field Blanks
	4	Trip Blanks
	2	Field Duplicates
	2	MS/MSD
Groundwater and Aqueous	1	Field Blank
	1	PFAS Field Blank
	2	Trip Blanks
	1	Field Duplicate
	1	MS/MSD
Soil Vapor	2	Ambient Air

Field blank samples were collected to determine the cleanliness of unused gloves that were intended to collect samples. Field blank samples were analyzed for same list of parameters as the target analytical parameters (minus PFAS). One PFAS field blank sample was collected per day of sampling when PFAS was analyzed.

The trip blank samples were collected to assess the potential for contamination of the sample containers and samples during transport from the laboratory to the field and back to the laboratory for analysis. Trip blanks contain about 40 milliliters (mL) of acidic water (dosed with hydrochloric acid) that is sealed by the laboratory when the empty sample containers are shipped to the field and are unsealed and analyzed by the laboratory when the sample shipment is received from the field. The trip blank samples were analyzed for VOCs.

The field duplicates were collected to assess the precision of the analytical methods relative to the sample matrix. The duplicates were collected from the same material as the primary sample by splitting the volume of homogenized sample collected in the field into two sample containers.

MS/MSD samples were collected to assess the effect of the sample matrix on the recovery of target compounds or target analytes. MS/MSD samples were collected from the same material as the primary sample by splitting the volume of the homogenized sample collected in the field into two additional sample containers.

Ambient air samples were collected to assess background air conditions that are typical for the area and determine whether ambient conditions at the time of sampling could have potentially interfered with sampling results. The ambient air samples were analyzed for the same parameter list as the soil vapor samples.

4.6 Data Validation

Analytical data was submitted to a Langan validator for review in accordance with USEPA and NYSDEC validation protocols. Data usability summary reports (DUSR) and the data validator's credentials are provided in Appendix J.

4.6.1 Data Usability Summary Report Preparation

A DUSR was prepared for each sampling matrix. The DUSR presents the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain-of-custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method and reproduced for 10% of the analyzed samples.

For each of the organic analytes, the following was assessed:

- Holding time
- Instrument tuning
- Instrument calibration
- Blank analytical results
- System monitoring compounds or surrogate recovery compounds (as applicable)
- Internal standard recovery analytical results
- MS/MSD analytical results
- Target compound identification
- Chromatogram quality
- Pesticide cleanup (if applicable)
- Compound quantization and reported detection limits
- System performance
- Analytical result verification

For each of the inorganic analytes, the following was assessed:

- Holding time
 - Calibration
 - Blank analytical results
 - Interference check sample
 - Laboratory check samples
-

- Duplicates
- Matrix Spike
- Inductively Coupled Plasma (ICP) Atomic Emission Spectrometry (AES) QC
- ICP serial dilutions
- Analytical result verification and reported detection limits

Based on the results of the data validation, the validated analytical results reported by the laboratory were assigned one of the following usability flags:

- “U” – The analyte was analyzed for but was not detected at a level greater than or equal to the reporting limit (RL) or the sample concentration for results was impacted by blank contamination.
- “UJ” – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
- “J” – The analyte was positively identified, and the associated numerical value is the approximate concentration of the analyte in the sample.
- “R” – The sample results are not useable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

After data validation was complete, validated data was used to prepare the tables and figures included in this report.

4.7 Field Equipment Decontamination

The groundwater sampling equipment was cleaned with Alconox and rinsed with deionized water between sampling locations during groundwater sample collection. Decontamination occurred at the sampling locations and all liquids were temporarily contained in a 5-gallon bucket. Decontamination wastewater was ultimately containerized in one 55-gallon UN/DOT-approved drum, characterized, and disposed off-Site (Section 4.8).

4.8 Investigation-Derived Waste Management

Investigation-derived waste (IDW), including soil cuttings and decontamination fluids and purged groundwater were containerized into two 55-gallon UN/DOT-approved drums. All drums were labeled, sealed, and staged in a secured area on-Site. The media from each drum was sampled on July 25, 2023 for waste characterization parameters to identify a suitable off-Site disposal facility permitted to accept the waste.

Based on the waste characterization results, the IDW was profiled as non-hazardous waste soil and fluids. On October 26, 2023 AARCO Environmental Services Corp. (AARCO) of Lidenhurst, New York transported one drum of soil cuttings and one drum of purged groundwater and

decontamination fluids to the Dale Transfer Corp. facility in West Babylon, New York. The material was consolidated and soil and fluids were transported to Conestoga Landfill in Morgantown, Pennsylvania and Clean Water of NY in Staten Island, New York, respectively, for recycling or disposal at a permitted facility. A copy of the IDW non-hazardous manifest is provided in Appendix L.

5.0 FIELD OBSERVATIONS AND ANALYTICAL RESULTS

5.1 Geophysical Investigation Findings

The geophysical survey identified subsurface utilities, including sewer, water, electric, and telecom lines. Large geophysical anomalies resembling a potential underground storage tank (UST) were not identified. A copy of the geophysical survey report is provided in Appendix C.

5.2 Geology and Hydrogeology

The following are descriptions of the geological and hydrogeological observations made during the RI. A groundwater contour map is provided as Figure 4. Cross-sectional diagrams showing inferred soil profiles are shown on Figures 6A, 6B, and 6C. Boring logs are provided in Appendix D.

5.2.1 Shallow Soil

During the RI, soil with anthropogenic materials was encountered at Lot 22 extending from beneath the surface cover to about 4 to 13 feet bgs (shallow soil). The shallow soil predominantly consists of light brown to tan or gray, fine-grained sand with varying amounts of silt, gravel, coal, lumber, glass, and brick. Soil with anthropogenic materials was also encountered beneath the asphalt pavement at Lot 100 extending to about 5 to 10 feet bgs. The shallow soil predominantly consists of light brown to tan or gray, fine-grained sand with varying amounts of silt, gravel, concrete, fabric, lumber, glass, and brick.

5.2.2 Native Soil

Native soil consists of light brown to tan, fine- to medium-grained sand with varying amounts of silt and fine gravel, which extended to the termination depth of each boring.

5.2.3 Bedrock

Bedrock was not encountered during the Phase II ESI or RI. Bedrock is anticipated between 150 to 200 feet bgs.

5.2.4 Hydrogeology

Synoptic groundwater level measurements were collected from monitoring wells on June 2, 2023. Groundwater depth ranged from about 27 to 30 feet bgs and groundwater elevations ranged from about el. 6.65 to el. 6.99. The groundwater elevation is highest in the northwestern part of Lot 22 and indicates a flow direction to the southeast. MW19 is omitted from the contour map as an outlier; a sump pump is suspected to be in use at the adjoining underground garage and interfering with the natural groundwater flow direction. Groundwater elevations are summarized in Table 3, and a groundwater contour map is presented as Figure 4.

5.2.5 Surface Water and Drainage

The Site is primarily improved with asphalt-paved surfaces or building slabs that are impervious to rainwater. Runoff from the surrounding area typically drains through catch basins into city sewers. Surface water does not exist at the Site.

5.3 Soil Findings

5.3.1 Soil Boring Field Screening Observations

Soil with field evidence of a chemical or petroleum release was generally not encountered in the subsurface, except for one location. Petroleum-like impacts, as evidenced by odors, staining, and/or PID readings above background levels were encountered near the southeast corner of Lot 100 in SB22 between 30 to 32 feet bgs. PID readings within this interval ranged from 7.2 to 50.5 ppm. Petroleum-like impacts were not seen between 33 and 36 feet bgs (the termination of the boring).

5.3.2 Soil Analytical Results

Twenty-seven grab soil samples, plus two field duplicates, were collected and analyzed for Part 375/TCL VOCs and SVOCs, PCBs, pesticides, herbicides, Part 375/TAL metals including cyanide, hexavalent and trivalent chromium, 1,4-dioxane, and PFAS. Soil sample analytical results are provided on Table 4 with comparisons to regulatory standards and guidance values. Analytical results and concentrations exceeding comparison criteria are shown on Figure 7. Full laboratory reports are included in Appendix I.

The following tables summarize compounds detected at concentrations (measured in mg/kg) exceeding UU, RU, and/or RURR SCOs. Concentrations detected above the RU SCOs are shown in bold and concentrations above the RURR SCOs are underlined

VOCs

Acetone was detected at concentrations exceeding the UU SCO in samples collected from soil borings SB14, SB16, SB17, SB19, and SB22 at depths between surface grade and 32 feet bgs. The following table provides details on acetone concentrations above UU SCOs:

Parameter	Minimum Detected Concentration above SCO	Maximum Detected Concentration above SCO	UU, RU, and RURR SCOs	Frequency of Detection above SCO
Acetone	0.053 mg/kg in SB14_10-12	0.11 mg/kg in SB16_7-9	UU: 0.05 mg/kg RU: 100 mg/kg RURR: 100 mg/kg	8 of 27

SVOCs

Seven SVOCs were detected at concentrations exceeding the UU, RU, and/or RURR SCOs in soil borings SB14, SB15, SB17, SB19, SB20, and SB22, at depths between surface grade and 15 feet bgs. The following table provides a summary of SVOCs that were detected above UU, RU, and RURR SCOs:

Parameter	Minimum Detected Concentration above SCO	Maximum Detected Concentration above SCO	UU, RU, and RURR SCOs	Frequency of Detection above SCO
Benzo(a)anthracene	<u>1.15 mg/kg</u> in SB19_0-2	<u>34.50 mg/kg</u> in SB19_10-12	UU: 1 mg/kg RU: 1 mg/kg RURR: 1 mg/kg	8 of 27
Benzo(a)pyrene	<u>1.18 mg/kg</u> in SB19_0-2	<u>35.70 mg/kg</u> in SB19_10-12	UU: 1 mg/kg RU: 1 mg/kg RURR: 1 mg/kg	8 of 27
Benzo(b)fluoranthene	<u>1.17 mg/kg</u> in SB22_0-2	<u>38.5 mg/kg</u> in SB19_10-12	UU: 1 mg/kg RU: 1 mg/kg RURR: 1 mg/kg	9 of 27
Benzo(k)fluoranthene	<u>1.05 mg/kg</u> in SB19_0-2	<u>13.00 mg/kg</u> in SB19_10-12	UU: 0.8 mg/kg RU: 1 mg/kg RURR: 1 mg/kg	8 of 27
Chrysene	<u>1.07 mg/kg</u> in SB19_0-2	<u>31.60 mg/kg</u> in SB19_10-12	UU: 1 mg/kg RU: 1 mg/kg RURR: 3.9 mg/kg	8 of 27
Dibenz(a,h)anthracene	<u>0.565 mg/kg</u> in SB19_13-15	<u>4.92 mg/kg</u> in SB19_10-12	UU: 0.33 mg/kg RU: 0.33 mg/kg RURR: 0.33 mg/kg	5 of 27
Indeno(1,2,3-cd)pyrene	<u>0.651 mg/kg</u> in SB20_3-5	<u>6.890 mg/kg</u> in SB15_0-2	UU: 0.5 mg/kg RU: 0.5 mg/kg RURR: 0.5 mg/kg	9 of 27

Pesticides

Four pesticides were detected at concentrations exceeding the UU SCOs in 14 samples from soil borings SB14, SB15, SB16, SB17, SB19, SB20, SB21 and SB22 at depths between surface grade and 14 feet bgs. The following table provides a summary of the pesticides that were detected above the UU and RU SCOs:

Parameter	Minimum Detected Concentration above SCO	Maximum Detected Concentration above SCO	UU, RU, and RURR SCOs	Frequency of Detection above SCO
4,4'-DDD	0.00683 mg/kg in SB20_0-2	0.396 mg/kg in SB14_0-2	UU: 0.0033 mg/kg RU: 2.6 mg/kg RURR: 13 mg/kg	12 of 27

Parameter	Minimum Detected Concentration above SCO	Maximum Detected Concentration above SCO	UU, RU, and RURR SCOs	Frequency of Detection above SCO
4,4'-DDE	0.00573 mg/kg in SB22_3-5	0.335 mg/kg in SB14_0-2	UU: 0.0033 mg/kg RU: 1.8 mg/kg RURR: 8.9 mg/kg	14 of 27
4,4'-DDT	0.00368 mg/kg in SB22_0-2	2.41 mg/kg in SB14_0-2	UU: 0.0033 mg/kg RU: 1.7 mg/kg RURR: 7.9 mg/kg	14 of 27
Dieldrin	0.00707 mg/kg in SB14_0-2	0.0134 mg/kg in SB14_10-12	UU: 0.005 mg/kg RU: 0.039 mg/kg RURR: 0.2 mg/kg	4 of 27

- Reported concentrations in standard font exceed UU SCOs.

Herbicides

Herbicides were not detected at concentrations exceeding the UU SCOs.

PCBs

PCBs were not detected at concentrations exceeding the UU SCOs.

Inorganics

Three metals were detected at concentrations exceeding the UU, RU, and/or RURR SCOs in 13 samples from soil borings SB14, SB15, SB16, SB17, SB19, SB20, SB21, and SB22 collected between surface grade and 12 feet bgs. The following table provides a summary of metals that were detected above UU, RU, and/or RURR SCOs:

Parameter	Minimum Detected Concentration above SCO	Maximum Detected Concentration above SCO	UU, RU , and RURR SCOs	Frequency of Detection above UU SCO
Barium	365 mg/kg in SB14_0-2	873 mg/kg in SB19_10-12, 3,870 mg/kg in DUP02	UU: 350 mg/kg RU: 350 mg/kg RURR: 400 mg/kg	9 of 27
Lead	70.4 mg/kg in SB16_0-2	1,570 mg/kg in SB14_10-12	UU: 63 mg/kg RU: 400 mg/kg RURR: 400 mg/kg	13 of 27
Zinc	134 mg/kg in SB15_4-6	435 mg/kg in SB19_10-12, 620 mg/kg in DUP02	UU: 109 mg/kg RU: 2,200 mg/kg RURR: 10,000 mg/kg	12 of 27

- Reported concentrations in standard font exceed UU SCOs.

Emerging Contaminants (PFAS: 40-Compound List) and 1,4-Dioxane

Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) results were compared to the NYSDEC guidance values for anticipated Site use, established in the April 2023 Guidelines for Sampling, Analysis and Assessment of PFAS. PFOS and PFOA were not detected in soil above the UU guidance values.

5.4 Groundwater Findings

5.4.1 Field Observations

PID headspace readings ranged from 0.0 to 5.6 ppm with the highest reading observed in monitoring well MW22 (Lot 100) during groundwater sampling and corresponds to the boring with the highest PID reading. Groundwater depths ranged from about 29.2 to 29.6 feet bgs (el. 6.91 to el. 6.99) in Lot 22 and from about 27.1 to 28.1 feet bgs (el. 6.65 to el. 6.74) in Lot 100.

Non-aqueous phase liquid (NAPL), sheens, or petroleum-like odors were not observed during monitoring well installation or groundwater sampling.

5.4.2 Analytical Data

Six groundwater samples, plus one QA/QC duplicate, were collected and analyzed for TCL VOCs, SVOCs, and PCBs, Part 375/TAL total and dissolved metals, 1,4-dioxane (SVOC), and PFAS. Two groundwater samples (MW14 and MW19) were analyzed for pesticides based on the two boring locations with pesticide exceedances in soil. Groundwater analytical results are presented in Table 5. Groundwater sample locations and results that exceed the NYSDEC Title 6 NYCRR Part 703.5 and the Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA waters (SGV) are presented on Figure 8.

The following contaminants were detected at concentrations exceeding the NYSDEC SGVs:

VOCs

Groundwater samples collected from monitoring wells MW14 and MW16 contained concentrations of chloroform above the NYSDEC SGVs, as shown in the following table:

Parameter	Minimum Detected Concentration above SGVs	Maximum Detected Concentration above SGVs	SGVs	Frequency of Detection above SGVs
Chloroform	8.74 µg/L in MW16_060123	12.30 µg/L in MW14_060123	7 µg/L	2 of 6

SVOCs

SVOCs were not detected above the NYSDEC SGVs.

Pesticides

Pesticides were not detected above the NYSDEC SGVs.

PCBs

PCBs were not detected above the NYSDEC SGVs.

Dissolved Metals

Groundwater samples collected from all six monitoring wells contained concentrations of two or more dissolved metals that exceeded the NYSDEC SGVs as shown in the following table:

Parameter	Minimum Detected Concentration above NYSDEC SGVs	Maximum Detected Concentration above NYSDEC SGVs	NYSDEC SGVs	Frequency of Detection above NYSDEC SGVs
Iron	2,400 µg/L in MW21_060223	4,330 µg/L in MW22_060223	300 µg/L	2 of 6
Manganese	513 µg/L in MW19_060223	984 µg/L in MW16_060123	300 µg/L	5 of 6
Selenium	10.7 µg/L in MW19_060223	17.5 µg/L in MW21_060223	10 µg/L	5 of 6
Sodium	31,000 µg/L in MW22_060223	140,000 µg/L in MW14_060123	20,000 µg/L	6 of 6

Total Metals

Groundwater samples collected from all six monitoring wells contained concentrations of two or more total metals that exceeded the NYSDEC SGVs as shown in the following table:

Parameter	Minimum Detected Concentration above NYSDEC SGVs	Maximum Detected Concentration above NYSDEC SGVs	NYSDEC SGVs	Frequency of Detection above NYSDEC SGVs
Iron	2,740 µg/L in MW21_060223	5,250 µg/L in MW22_060223	300 µg/L	2 of 6
Manganese	320 µg/L in MW22_060223	887 µg/L in MW16_060123	300 µg/L	6 of 6
Sodium	41,600 µg/L	130,000 µg/L	20,000 µg/L	6 of 6

Parameter	Minimum Detected Concentration above NYSDEC SGVs	Maximum Detected Concentration above NYSDEC SGVs	NYSDEC SGVs	Frequency of Detection above NYSDEC SGVs
	in MW22_060223	in MW16_060123		

Emerging Contaminants (PFAS: 40-Compound List) and 1,4-Dioxane

1,4-dioxane (SVOC) was not detected in groundwater. PFOS and PFOA were detected above the SGV guidance values in all six wells as shown in the following table.

Parameter	Minimum Detected Concentration above NYSDEC SGVs	Maximum Detected Concentration above NYSDEC SGVs	NYSDEC SGVs	Frequency of Detection above NYSDEC Guidance Values
Perfluorooctane Sulfonic Acid (PFOS)	0.018 µg/L in MW17_060123	0.0535 µg/L in MW19_060223	0.0027 µg/L	6 of 6
Perfluorooctanoic Acid (PFOA)	0.0253 µg/L in MW14_060123	0.0497 µg/L in MW21_060223	0.0067 µg/L	6 of 6

5.5 Soil Vapor Findings

Five soil vapor samples, and two ambient air samples were collected and submitted for laboratory analysis for USEPA TO-15 VOCs. Soil vapor sample results are summarized in Table 6. Air sample locations and analytical results are shown on Figure 9. Laboratory analytical reports are provided in Appendix K.

5.5.1 Soil Vapor Analytical Data

Detected VOC concentrations were highest in SV16 and SV17. Total VOCs were detected up to 8,658.6 µg/m³ in SV16. BTEX were detected up to 44.5 µg/m³ in SV17. Total chlorinated VOCs (CVOOC) were detected up to 136.6 µg/m³ in SV16. Acetone was detected between 2,000 and 4,000 µg/m³, in Lot 100, but was also identified in laboratory blank samples. A complete list of detected VOCs include the following:

- 1,1,1-trichloroethane
- 1,1,2-trichloro-1,2,2-trifluoroethane (freon 113)
- 1,2,4-trichlorobenzene
- 1,2,4-trimethylbenzene
- 1,3-butadiene
- 2-butanone
- 2-hexanone
- bromodichloromethane
- carbon disulfide
- carbon tetrachloride
- chloroform
- chloromethane
- cyclohexane
- dichlorodifluoromethane
- ethyl benzene
- n-heptane
- n-hexane
- o-xylene
- propylene
- styrene
- tetrachloroethylene
- tetrahydrofuran
- toluene

- 4-ethyltoluene
- acetone
- acrylonitrile
- benzene
- isopropanol
- m,p-xylene
- methyl methacrylate
- trichloroethylene
- trichlorofluoromethane (freon 11)
- vinyl chloride

No standard currently exists for soil vapor in New York State. The NYSDOH SVI Guidance contains three Decision Matrices that address eight VOCs (TCE, PCE, 1,1,1-trichloroethane [TCA], 1,1-dichloroethene [DCE], cis-1,2-DCE, carbon tetrachloride, methylene chloride, and vinyl chloride) and provides recommendations for actions such as monitoring or mitigation based on sub-slab vapor and indoor air sample concentrations. The Decision Matrices were used as a screening tool for soil vapor in the absence of regulatory standards.

Detected VOCs in soil vapor samples that are addressed in the NYSDOH Decision Matrices are evaluated in the following table:

Parameter	Minimum Detected Concentration	Maximum Detected Concentration	NYSDOH Decision Matrices Minimum Concentrations in Sub-Slab Vapor	Frequency of Detection above Decision Matrices
1,1,1-Trichloroethane	17 µg/m ³ in SV17_052323		100 µg/m ³	0 of 5
Carbon Tetrachloride	0.29 µg/m ³ in SV17_052323		6 µg/m ³	0 of 5
Tetrachloroethene (PCE)	16 µg/m ³ in SV21_052523	130 µg/m³ in SV16_052323	100 µg/m ³	1 of 5
Trichloroethene (TCE)	6.1 µg/m³ in SV17_052323	6.6 µg/m³ in SV16_052323	6 µg/m ³	2 of 5
Vinyl Chloride	1.7 µg/m ³ in SV1_052323		6 µg/m ³	0 of 5

PCE and TCE were detected in soil vapor at concentrations that the NYSDOH Decision Matrices would recommend no further action, monitor, or mitigate. The matrix evaluation cannot be completed without paired sub-slab vapor and indoor air sample results. However, current subsurface conditions do not represent post-remediation conditions as the new developments are expected to remove potential soil vapor sources to construct the new building foundations.

5.5.2 Sub-Slab Vapor and Indoor Air Sample Data

Indoor air sample analytical results were compared to the NYSDOH Air Guideline Values (AGV) as set forth in the NYSDOH SVI Guidance. VOCs were not detected in indoor air at concentrations exceeding the NYSDOH AGVs.

Co-located sub-slab vapor and indoor air sample analytical results were evaluated using the NYSDOH SVI Guidance Decision Matrices for Sub-Slab Vapor and Indoor Air (Decision Matrices).

NYSDOH Decision Matrices evaluate 8 chlorinated VOCs ([TCE], [PCE], 1,1,1-trichloroethane [1,1,1-TCA], 1,1-dichloroethene, cis-1,2-dichloroethene, carbon tetrachloride, methylene chloride, and vinyl chloride) and 13 petroleum-related VOCs (benzene, ethylbenzene, naphthalene, cyclohexane, isooctane [2,2,4-trimethylpentane], 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, o-xylene, m-xylene, p-xylene, heptane, hexane, and toluene) using six matrices that evaluate the relationship between soil vapor and indoor air concentrations and provide recommendations for actions such as monitoring or mitigation. Due to limitations in separating concentrations of m-xylene and p-xylene by the laboratory, they are presented as m,p-xylene.

A summary of the findings is provided below:

- Vinyl chloride was not detected in sub-slab vapor or indoor air samples.
- When the maximum concentrations of 5 chlorinated VOCs (PCE; 1,1,1-TCA; 1,1-dichloroethene; cis-1,2-dichloroethene; and methylene chloride) and 13 petroleum-related VOCs (benzene; ethylbenzene; naphthalene; cyclohexane; 2,2,4-trimethylpentane; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; o-xylene; m-xylene; p-xylene; heptane; hexane; and toluene) are evaluated using the Decision Matrices, a recommendation of “no further action” is provided.
- Carbon tetrachloride was detected in all three sub-slab vapor samples at concentrations from 1.64 $\mu\text{g}/\text{m}^3$ in SSV03 to 3.65 $\mu\text{g}/\text{m}^3$ in SSV02. Carbon tetrachloride was detected in the co-located indoor air samples at concentrations of 1.87 $\mu\text{g}/\text{m}^3$ at IA03 and 2.06 $\mu\text{g}/\text{m}^3$ at IA02. A source of carbon tetrachloride was not identified inside the building during the chemical product inventory. When the co-located analytical results are evaluated using the NYSDOH Decision Matrix, a recommendation of “identify source(s) and resample or mitigate” is provided.
- TCE was detected in all three sub-slab vapor samples at concentrations from 6.79 $\mu\text{g}/\text{m}^3$ in SSV01 to 38.2 $\mu\text{g}/\text{m}^3$ in SSV02. TCE was detected in the co-located indoor air samples at concentrations of 0.394 $\mu\text{g}/\text{m}^3$ at IA01 and 0.586 $\mu\text{g}/\text{m}^3$ at IA02. A source of TCE was not identified inside the building during the chemical product inventory. When the co-located analytical results are evaluated using the NYSDOH Decision Matrix, a recommendation of “monitor” is provided.
- PID readings were 0.0 ppm during screening in the building cellar.

Benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in sub-slab vapor samples at 1.59 $\mu\text{g}/\text{m}^3$ in SSV01 and 3.33 $\mu\text{g}/\text{m}^3$ in SSV03. BTEX was not detected in the sub-slab vapor sample collected at SSV02. BTEX detected in indoor air samples were from 13.67 $\mu\text{g}/\text{m}^3$ in IA03 to 15.23 $\mu\text{g}/\text{m}^3$ in IA02.

5.6 Quality Control Results

Quality control sample results were evaluated during data validation. The duplicates, MS/MSDs, field blanks, and trip blanks were collected during the RI, collected at a frequency of 1 per 20 primary samples and are detailed in Table 1. Select analytes were detected in parent and field duplicate samples at concentrations that were outside the applicable precision criteria indicating potential indeterminate bias. Detections were observed in the field and laboratory blanks, indicating potential blank contamination. In both cases, while qualifications were applied to the data based on these quality control outliers, the anomalies are considered minor deficiencies, and all associated data are considered usable for the purposes of this project (Section 5.7). Full laboratory analytical reports are provided in Appendix K.

5.7 Data Usability

New York Analytical Services Protocol (ASP) Category B laboratory reports for soil, groundwater, soil vapor, and air samples collected during the RI were provided by York, a NYSDOH ELAP-certified laboratory in Richmond Hill, New York, and were forwarded to Langan's data validator.

The data were determined to be acceptable. Completeness, defined as the percentage of analytical results that are judged to be valid, is 100 percent for soil, groundwater, and soil vapor. No major deficiencies were identified. All data is considered useable as qualified. DUSRs are provided in Appendix J.

5.8 Evaluation of Potential Areas of Concern

This section discusses the results of the RI with respect to the potential AOCs described in Section 3.4 and shown on Figure 5.

5.8.1 AOC 1: Historical Site Operations

The eastern part of Lot 22 was historically used as a dry cleaner (608 Sutter Avenue) and a millinery (612 Sutter Avenue), which may have contributed to the release of hazardous substances such as petroleum constituents and chlorinated solvents to the subsurface, impacting soil, groundwater, and/or soil vapor. In addition to the historical on-Site uses, historical dry cleaners were also located north-adjacent to Lot 22 at 601 Sutter Avenue and 607 Sutter Avenue. AOC 1 was evaluated using soil borings SB14, SB15, SB16, SB17, and SB18; monitoring wells MW14, MW16, and MW17; and soil vapor points SV16 and SV17. A summary of the findings for AOC 1 is provided below:

AOC 1 – Soil

- PID readings above background were not detected within AOC 1.
 - Acetone was detected above the UU SCO in several RI soil samples; however, acetone is a common laboratory contaminant and was detected in associated trip blanks and field
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blanks. Therefore, the presence of acetone in laboratory analytical results is not indicative of a release.

- Petroleum-related and chlorinated VOCs were not detected above the laboratory reporting limit.
- SVOCs and metals were detected in soil at concentrations exceeding the UU, RU, and/or RURR SCOs. The highest SVOC and metal concentrations were detected in borings SB14 and SB15 from 0 to 12 feet bgs.

AOC 1 – Groundwater

- The VOC chloroform was detected at concentrations exceeding the SGVs in groundwater samples collected from MW14 and MW16.
- PCE and TCE were detected in MW14 (PCE only), MW16, and MW17, but below the SGVs.
- PFOA and PFOS were detected at concentrations exceeding the SGVs; however, the concentrations are relatively consistent across all groundwater samples and not indicative of a source.

AOC 1 – Soil Vapor

- Petroleum-related VOCs were detected in soil vapor sample at concentrations from 13 to 44.5 µg/m³.
- PCE and TCE were detected in soil vapor above the NYSDOH Decision Matrices minimum sub-slab vapor concentration that, without indoor results, recommend no further action, monitor, or mitigate.

AOC 1 Conclusions

Subsurface impacts associated with the former dry cleaner or millinery include chloroform detected in groundwater and PCE and TCE detected in soil vapor. Chloroform was not detected in soil and was detected in one soil vapor sample (SV17) and three sub-slab vapor samples (SSV01, SSV02, and SSV03), suggesting that its presence in groundwater is either from the dry cleaner or migrating from an off-Site source. Chloroform is also a byproduct of adding chlorine to potable water and could be from a potable source in the vicinity. A Site source of PCE and TCE in soil vapor was not identified. Acetone is a common degreaser and may have been used during historical millinery operations; however, the detected concentrations are more indicative of laboratory contamination than a release. SVOCs and metals possibly associated with historical Site use were detected in soil in AOC 1 at a maximum depth of 12 feet bgs.

Historical Site operations are not associated with typical PFOA or PFOS uses. PFOA and PFOS concentrations in groundwater exceeded SGVs, but were not detected or detected below UU

guidance values in soil samples. PFOA and PFOS exceedances in groundwater are more likely attributed to regional groundwater quality and not a specific on-Site release.

5.8.2 AOC 2: SVOC-, Pesticide-, and Metals-Related Impacts

The shallow soil predominantly consists of light brown to tan or gray, fine-grained sand with varying amounts of silt, gravel, coal, concrete, fabric, lumber, glass, and brick and contained SVOCs, metals, and pesticides at concentrations above the UU, RU, and/or RURR SCOs. AOC 2 was evaluated using soil borings SB14, SB15, SB16, SB17, and SB18 (from Lot 22) and SB19, SB20, SB21, and SB22 (from Lot 100); monitoring wells MW14, MW16, MW17, MW19, MW21, and MW22; and soil vapor points SV16, SV19, SV20, and SV21 (for general soil vapor conditions). A summary of the findings for AOC 2 are provided below:

AOC 2 – Soil

- Petroleum-like impacts were observed in SB22 from 30 to 32 feet bgs. PID readings above background were detected up to 50.5 ppm in soil where petroleum-like staining and odors were apparent. Analytical results from this interval were below UU SCOs and a source of petroleum was not identified. PID readings above zero and petroleum-like staining/odors were absent in the remaining depth of the boring (33 to 36 feet bgs).
 - One VOC (acetone) exceeded the UU SCO in several samples. Acetone is a common laboratory contaminant and was identified in several trip blanks; therefore, acetone is not considered indicative of Site conditions.
 - Seven SVOCs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene), were detected above the UU, RU, and/or RURR SCOs throughout the shallow soil layer. Four SVOCs were detected above the RURR SCO in native soil from sample SB19_13-15, which is the approximate boundary of the shallow (anthropogenic material containing) and native soil. SVOCs in soil are suspected to be from historical Site use and/or past improvements using material of unknown origins to grade the Site.
 - Metals, including barium, lead, and zinc, were detected above the UU, RU, and/or RURR SCOs in shallow soil samples. The presence of barium may be associated with used brick in the shallow soil matrix and airborne deposits from historical gas manufacturing (577 Sutter Avenue). Other metal impacts are attributed to past improvements that may have used material of unknown origins during construction.
 - Pesticides, including 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and dieldrin were detected above UU and/or RU SCOs, but below RURR SCOs in shallow soil samples from soil borings SB14, SB15, SB16, SB17, SB18, SB19, SB20, SB21, and SB22. 4,4'-DDT was detected above the UU SCO in native soil in sample SB16_12-14.
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- PFOS and PFOA were not detected in soil above the UU guidance values.

AOC 2 – Groundwater

- SVOCs were not detected in groundwater above the SGVs.
- Dissolved and total metals, including iron, manganese, selenium, and sodium were detected at concentrations above the NYSDEC SGVs. The metal concentrations represent minerals typically found in regional groundwater and not contaminants of concern.
- Pesticides were not detected in the groundwater samples analyzed from Lots 22 or 100.
- PFOA and PFOS were detected at concentrations exceeding the SGVs; however, the concentrations are relatively consistent across all groundwater samples and not indicative of a source.

AOC 2 – Soil Vapor

- Soil vapor typically is not used to evaluate SVOCs, pesticides, and metals; however, soil vapor samples SV19, SV20, and SV21 were used to evaluate general quality of the subsurface at Lot 100.
- Petroleum-related and chlorinated VOCs were detected at lower concentrations on Lot 100 than on Lot 22 and are not indicative of a source of either on Lot 100.

AOC 2 – Conclusions

Shallow soil containing anthropogenic materials, which is ubiquitous across the Site footprint, extends variably from surface grade to about 13 feet bgs. The Phase II ESI had previously indicated that soil containing anthropogenic materials extended to 30 feet bgs, but this understanding was refined and reclassified during the RI.

The VOC acetone was detected above UU SCOs in several soil samples in Lot 100, but considering the low concentrations and that it was also detected in laboratory blanks, the presence of acetone is understood to be a laboratory contaminant and not attributed to a specific release. SVOCs, metals, and pesticides were detected at concentrations above the UU, RU, and/or RURR SCOs in samples generally within the soil layer containing anthropogenic materials.

Petroleum-like impacts at SB22 from 30 to 32 feet bgs that were sampled did not contain petroleum-related compound above UU SCOs. Petroleum-related compounds were also absent in groundwater and were present at relatively low concentrations in soil vapor at this location. Therefore, this location does not present a new area of concern.

Metals identified in shallow soil were not present in groundwater and are associated with historical Site use and/or previous Site improvements that included materials of unknown origin to grade the Site. Other metals detected in groundwater are associated with naturally-occurring minerals (i.e., iron, manganese, selenium, and sodium) that are typical in regional groundwater.

PFOA and PFOS were not detected in soil above the UU guidance values. PFOA and PFOS were detected in groundwater above the SGVs across both development lots, but at low-level concentrations. Considering the lack of soil impacts and no known historical uses of PFAS-containing products, the groundwater concentrations are considered a regional condition and not indicative of an on-Site release.

6.0 QUALITATIVE HUMAN AND FISH/WILDLIFE EXPOSURE ASSESSMENT

Human health exposure risk was evaluated for both current and future on-site and off-site conditions, in accordance with the May 2010 NYSDEC Final DER-10 Technical Guidance for Site Investigation and Remediation. The assessment includes an evaluation of potential sources and migration pathways of Site contamination, potential receptors, exposure media, and receptor intake routes and exposure pathways.

In addition to the human health exposure assessment, NYSDEC DER-10 requires an on-site and off-site Fish and Wildlife Resources Impact Analysis (FWRIA) if certain criteria are met. Based on the requirements stipulated in Section 3.10 and Appendix 3C of DER-10, a FWRIA is not required. A completed form of DER-10, Appendix 3C is included in Appendix M.

6.1 Current Conditions

The Site is at 600 Sutter Avenue and 350 Sheffield Avenue within an urban area characterized by commercial, industrial, and residential uses in the East New York neighborhood of Brooklyn, New York. The Site consists of two discontinuous lots on Brooklyn Tax Block 3770, identified as Lot 22 and Lot 100. Lot 22, located in the northern part of Block 3770, is occupied by a one-story supermarket with a cellar and an asphalt-paved parking lot. Lot 100, located in the southeastern part of Block 3770, is a vacant asphalt-paved lot. Access to Lot 100 is restricted by a fence and a locked gate. Access to Lot 22 is available to public shoppers visiting the supermarket. Access to the supermarket cellar is restricted to employees or authorized guests.

6.2 Proposed Conditions

Current development plans include demolishing the one-story supermarket and parking lot on Lot 22 and the asphalt-paved vacant area on Lot 100. Two eight-story mixed-use buildings will be constructed, one on each lot. Building 1 (Lot 22) will provide 89 affordable housing units, and about 12,800 square feet of ground-floor retail space. Building 2 (Lot 100) will provide 47 affordable residential units with 2,100 square feet of ground-floor retail space. The Site extents and locations of the proposed Buildings 1 and 2 are shown on the Site plan provided as Figure 2.

6.3 Summary of Environmental Conditions

AOCs include historical Site operations (including a dry cleaner and millinery) associated with metals and VOC and chlorinated solvent-related contaminants. Both development lots also contain a layer of shallow soil impacted with SVOCs, pesticides, and metals. Petroleum-like staining and odors were identified in Lot 100; however, the associated soil and groundwater samples at this location did not contain petroleum-related compounds above relevant standards.

Soil vapor at Lot 22 contains chlorinated VOCs that may warrant mitigation for new developments. Soil vapor at Lot 100 contains concentrations of acetone above background ambient air conditions. Acetone is a known degreaser and a common laboratory contaminant

used for decontaminating laboratory equipment; acetone was detected in laboratory blank samples and is not considered a contaminant of concern.

PFOA and PFOS were detected in groundwater above the NYSDEC SGVs; however, they were not detected at either Lot 22 or 100 at concentrations above the UU guidance value in soil samples. PFAS in groundwater is representative of regional groundwater quality and not indicative of a release.

6.4 Conceptual Site Model

A Conceptual Site Model (CSM) was developed based on the findings of the RI and previous investigations to produce a simplified framework for understanding the distribution of impacted materials, potential migration pathways, and potentially complete exposure pathways.

6.4.1 Potential Sources of Contamination

Potential sources of contamination have been identified and include shallow soil containing anthropogenic materials, historical Site uses, and unknown off-Site sources.

- Shallow soil throughout the Site contains SVOCs, pesticides, and metals at concentrations above the Part 375 UU, RU, and/or RURR SCOs. Concentrations of SVOCs, pesticides, and metals in soil are likely associated with historical Site uses of anthropogenic materials placed during or resulting from past improvements. Anomalously high concentrations of barium may be from used brick as part of soil matrix or airborne deposits from the historical manufactured gas plant.
 - Localized petroleum-like impacts including odor, staining, and PID readings above background were observed in native soil between 30 and 32 feet bgs at SB22. Soil and groundwater analytical results from this location did not contain VOCs above relevant standards and therefore this condition is not considered an AOC.
 - Historical Site uses included a dry cleaner and millinery. Historical adjacent property uses also included several dry cleaners and a manufactured gas plant. PCE and TCE, contaminants commonly associated with dry cleaners, were detected in soil vapor at Lot 22 at concentrations that may warrant mitigation in new developments. PCE and TCE were not detected in soil above UU SCOs or groundwater above SGVs. The VOC chloroform was detected in groundwater above the SGV and in one soil vapor sample, but not in soil. Chloroform can also form as a byproduct of adding chlorine to potable water distribution systems. Potential sources include historical on-site and off-site dry cleaners and potable water sources.
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6.4.2 Exposure Media

The impacted media include soil, groundwater, and soil vapor, which may have been impacted by former Site operations and/or anthropogenic material in soil. Localized petroleum impacts were observed in native soil at one location in Lot 100 from about 30 to 32 feet bgs. Petroleum-related compounds were not detected in soil above UU SCOs or in groundwater above SVGs at this location.

Analytical data also indicates that shallow soil contains SVOCs and metals above RURR SCOs and pesticides above UU SCOs. SVOCs, pesticides, and metals in soil may be associated with historical Site use and/or anthropogenic material (e.g., brick, coal, coal ash, slag, concrete, clay, glass, wood, organic material, asphalt). Groundwater impacts include one VOC (chloroform), total and dissolved metals, and PFAS. The total and dissolved metals include naturally occurring minerals (iron, manganese, selenium, and sodium) that are attributed to regional groundwater quality. SGV exceedances of PFOA and PFOS in groundwater are attributed to regional groundwater quality as they were either not detected or detected below UU guidance values and there are no known historical PFAS uses. Groundwater is generally encountered about 27 to 30 feet bgs and is not a potable source of water in this part of NYC. VOCs (including PCE, TCE, and petroleum-related compounds) are present in soil vapor at concentrations that may warrant mitigation for new developments.

6.4.3 Receptor Populations

Over 95 percent of the Site is covered with asphalt pavement, the remainder is covered by the supermarket on Lot 22. Currently, receptors include people visiting the supermarket on Lot 22. Lot 100 is vacant and locked from public access. Under future construction conditions, human receptors will be limited to construction and remediation workers, authorized guests visiting the Site, and the public adjacent to the Site. Post construction, human receptors may include the residential and commercial use occupants, employees, and the adjacent community.

6.5 Potential Exposure Pathways – On-Site

6.5.1 Current Conditions

Human exposure to contaminated soil is prevented by an impermeable asphalt cover (over 95 percent of the combined lot areas) and the supermarket on Lot 22. Site access to Lot 100 is also restricted by a metal fence; therefore, human exposure to contaminated soil is limited. There is a potential pathway through dermal absorption, inhalation and ingestion for investigation workers that handle soil recovered from beneath the surface cover, but this is controlled by implementation of a Site-specific Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP).

Groundwater in this area of NYC is not used as a potable water source. There is a potential exposure pathway during groundwater sampling associated with Site investigation. The potential pathway for Site investigation workers is through dermal absorption and ingestion but is controlled by implementation of a site-specific HASP.

Soil vapor contains VOCs at concentrations above background ambient air and may warrant mitigation in new developments. Potential exposure to soil vapor is limited as the majority of the Site is an open-air paved lot, and the supermarket contains a concrete foundation.

6.5.2 Construction/Remediation Conditions

Construction and remedial activities will include excavation and off-Site disposal of impacted soil and construction of foundation components. In the absence of a HASP and CAMP, this scenario presents the potential for exposure of soil contaminants to construction and remediation workers via dermal absorption, ingestion, and inhalation of soil, groundwater and/or vapors and particulate matter. This exposure pathway will be marginalized through the implementation of the HASP, CAMP, and vapor and dust suppression techniques.

6.5.3 Proposed Future Conditions

The proposed developments include two mixed-use affordable residential buildings with commercial spaces with full cellars constructed across a majority of the lot footprints. Although the Site is anticipated to achieve a Track 2 residential cleanup, new developments may include vapor retarder or mitigation components as a construction measure or contingency if a lower level of cleanup is achieved.

There is no pathway for ingesting groundwater contaminants because the Site and surrounding area obtain municipally-supplied drinking water from surface water reservoirs located upstate.

6.6 Potential Exposure Pathways – Off-Site

In the absence of a CAMP and HASP during remediation, soil has the potential to be transported off-Site by wind in the form of dust or on the tires of vehicles or equipment leaving the Site after direct contact with Site soil. Off-Site transport creates a potential exposure pathway to the adjacent community. Groundwater dewatering during construction is not expected. During construction, soil vapor will dissipate with ambient air and CAMP will be implemented at the Site perimeter to monitor air quality conditions associated with remediation.

The potential off-Site migration of Site soil contaminants is not expected to result in a complete exposure pathway for current, construction and remediation, or future conditions for the following reasons:

- The Site is in an urban area and predominantly covered with continuous impervious surfaces (i.e., concrete buildings, asphalt pavement).
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- During Site excavation, remediation, and construction, the following protective measures will be implemented:
 - A site-specific HASP, including a CAMP, will be implemented to protect on-Site personnel and to monitor the perimeter of the Site to mitigate off-Site migration of particulates and VOCs during construction.
 - Air monitoring will be conducted for particulates (i.e., dust) and VOCs during ground-intrusive work as part of a CAMP. Dust and/or vapor suppression techniques will be employed to limit potential for off-Site soil and vapors.
 - Vehicle tires and undercarriages contacting Site soil will be washed prior to leaving the Site to prevent tracking soil off-Site.
 - A soil erosion/sediment control plan will be implemented during remediation to control off-Site migration of soil.
- The Site footprint will be entirely capped after the development is complete.
- Groundwater in this area of NYC is not used as a potable water source without prior treatment and agency approval.

6.7 Evaluation of Human Health Exposure

Based on the CSM and review of environmental data, complete on-Site exposure pathways appear to be present in the absence of monitoring and mitigation or engineering controls (ex., HASP with CAMP, capping system, etc.), during construction/remediation.

Complete exposure pathways have the following five elements: 1) a contaminant source; 2) a contaminant release and transport mechanism; 3) a point of exposure; 4) a route of exposure; and 5) a receptor population.

6.7.1 Current Conditions

Contaminant sources include shallow soil with varying concentrations of SVOCs, pesticides, and metals; metals- and PFAS-impacted groundwater; and VOCs above background levels in soil vapor.

Contaminant release and transport mechanisms include contaminated soil transported as dust (dermal, ingestion, inhalation), and existing soil vapor contaminants (inhalation). The likelihood of human exposure is limited, as:

- The Site is covered by over 95 percent asphalt pavement or concrete building slabs. Access to Lot 100 is also restricted by a fence and locked gate.
 - Groundwater at the Site is not a potable water source.
-

- Soil vapor is present at concentrations which may warrant monitoring or mitigation; although a majority of the Site is an open-air paved lot with the exception of the supermarket.

6.7.2 Construction/Remediation Activities

During development and remediation, the points of exposure will include disturbed and exposed soil during excavation, dust and organic vapors generated during excavation, and contaminated groundwater that may be encountered during excavation. Routes of exposure include ingestion and dermal absorption of contaminated soil and inhalation of dust and vapors arising from contaminated soil. The receptor population includes construction and remediation workers and, to a lesser extent, the public adjacent to the Site.

The potential for completed exposure pathways is present since all five elements exist; however, the risk will be minimized by the implementation of appropriate health and safety measures, such as monitoring the air for organic vapors and dust, using vapor and dust suppression measures, cleaning truck undercarriages before they leave the Site to prevent off-Site soil tracking, maintaining Site security, and wearing the appropriate personal protective equipment (PPE).

A HASP, a RAWP, and a CAMP that include measures such as conducting a community air-monitoring program, donning PPE, covering soil stockpiles, altering work sequencing, restricting eating and drinking on-Site, maintaining a secure construction entrance, proper housekeeping, and applying vapor and dust suppression measures to prevent off-Site migration of vapors and particulates during construction will be implemented. Such measures will prevent completion of exposure pathways for soil, groundwater, and soil vapor contaminants.

6.7.3 Proposed Future Conditions

For the proposed future use conditions, residual contaminants are expected to be removed during construction of the building foundation and cellar. If residual impacts exist and engineering/institutional controls are not implemented, points of exposure could include potential cracks in the foundation of the proposed building, exposure during future ground-intrusive work, or inhalation of vapors entering the building. The receptor population includes residential use occupants, employees, retail workers, and the adjacent community. The possible routes of exposure can be avoided or mitigated by removal of contaminated media from the Site, construction and maintenance of a Site capping system (e.g., concrete building slab), installation of a vapor barrier and/or vapor mitigation system, and implementation of a Site Management Plan (SMP), depending on the remedy.

6.7.4 Human Health Exposure Assessment Conclusions

1. Exposure to Site contaminants is currently limited because the Site is mostly covered with an impermeable surface cover (i.e., concrete building slab, asphalt pavement). The
-

primary exposure pathways are dermal contact, ingestion and inhalation of soil, dust, or groundwater by Site visitors in instances where the impermeable Site cover is compromised or during Site investigation. The exposure risks can be avoided or minimized by following the appropriate HASP and vapor and dust suppression measures, and by implementing a CAMP during intrusive activities.

2. In the absence of engineering controls, there is a moderate risk of exposure during the construction and remediation activities. The primary exposure pathways are:
 - a. Dermal contact, ingestion, and/or inhalation of contaminated soil by construction workers.
 - b. Inhalation of contaminated soil vapor by construction workers and community in the vicinity of the Site.
 - c. Dermal contact, ingestion, and/or inhalation of soil (dust) by the community in the vicinity of the Site.

These pathways may be avoided or minimized by performing community air monitoring and by following the appropriate health and safety, dust suppression, and Site security measures outlined in a site-specific HASP.

3. The existence of a complete exposure pathway for Site contaminants to human receptors under future conditions is unlikely, as contaminant sources will likely be removed during Site development, and if any residual soil remains, the impermeable surface covers (building foundation slabs, pavement, etc.) would serve as a cap preventing exposure. Groundwater is not used as a potable water source in this area of NYC; therefore, exposure to groundwater contaminants is unlikely. VOCs are present in soil vapor at concentrations that may warrant mitigation; however, on-Site sources of soil vapor are expected to be removed or substantially reduced and, if necessary, engineering controls may be implemented for significant impacts remaining after remediation. Following construction, an SVI evaluation will be completed at the Site.
 4. It is unlikely that a complete exposure pathway exists for the migration of Site contaminants to off-Site human receptors for current, construction phase, or future conditions. Monitoring and control measures would be used during remediation and construction to prevent completion of this pathway. Under future conditions, the Site will be remediated and, if necessary, engineering controls may be implemented (e.g., site-wide cap, vapor barrier) to prevent completion of this pathway.
-

7.0 NATURE AND EXTENT OF CONTAMINATION

This section evaluates the nature and extent of soil, groundwater, and soil vapor contamination. The nature and extent of the contamination is derived from a combination of field observations and analytical data that were discussed in Section 5.0.

7.1 Soil Contamination

Shallow soil, which includes anthropogenic materials in the matrix and extends up to 13 ft bgs, is ubiquitous across the two lots. SVOCs, pesticides, and metals detected at concentrations above the UU, RU, and/or RURR SCOs are associated with historical Site use and/or anthropogenic materials that may have been placed during past improvements. SVOC, pesticide, and metal impacts exceeding the RURR SCOs appear to be predominantly contained within the 0- to 15-foot bgs interval.

Localized petroleum-like staining, odors, and PID readings above background were encountered in native soil from 30 to 32 feet bgs at SB22 in Lot 100. Impacts were absent in the remainder of the boring from 33 to 36 feet bgs. Soil and groundwater sample analytical results at this location did not have VOC exceedances of UU SCOs or the groundwater SGVs.

7.2 Groundwater Contamination

The VOC chloroform exceeded the TOGS SGVs at monitoring wells MW14 and MW16 in Lot 22. Chloroform is considered a useful solvent and is also a byproduct of adding chlorine to potable water distribution systems. Chloroform was not detected in soil but was detected in one soil vapor sample (SV17) within the former dry cleaner AOC, suggesting that its presence in groundwater could be the result of minor releases from dry cleaning operations or from a potable source.

Dissolved metals including iron, manganese, selenium, and sodium exceeded the TOGS SGVs; however, these metals are considered naturally occurring minerals and are likely associated with regional groundwater quality.

PFOA and PFOS were detected in groundwater above the SGVs across both development lots, at relatively similar concentrations. Considering the absence of soil PFAS impacts and no known historical uses of PFAS contaminating materials, the groundwater concentrations are considered to be a result of regional groundwater quality and not indicative of a Site source.

7.3 Soil Vapor Contamination

PCE and TCE were detected in soil vapor at concentrations that NYSDOH SVI Guidance may warrant mitigation. Petroleum-related VOCs were also detected at low-level concentrations in Lot 22 and Lot 100; however on-Site impacts above UU SCOs or TOGS SGVs were not identified.

The SVI evaluation within the cellar of the supermarket did not identify VOCs at concentrations exceeding the threshold for which mitigation is recommended. Carbon tetrachloride was detected in sub-slab vapor and indoor air at concentrations that result in a NYSDOH recommendation of “identify source(s) and resample or mitigate”. TCE was detected in indoor air and sub-slab vapor at concentrations that result in a NYSDOH recommendation of “monitor”. In accordance with the September 2024 SVI Evaluation Work Plan, a second soil vapor intrusion evaluation was performed on February 3, 2025. An SVI Evaluation Report will be prepared and include a summary of SVI Evaluation Work Plan implementation, soil vapor intrusion evaluation results, interior chemical inventory and indoor air quality survey, and conclusions regarding potential for soil vapor intrusion in the building; and recommendations for actions such as monitoring or mitigation. The SVI Evaluation Report will be submitted to NYSDEC and NYSDOH under separate cover.

8.0 CONCLUSIONS

1. Stratigraphy: The stratigraphy of the Site consists of a shallow soil layer that extends variably from about 4 to 13 feet bgs. The shallow soil layer predominantly consists of light brown to tan or gray, fine-grained sand with varying amounts of silt, gravel, coal, concrete, fabric, lumber, glass, and brick. Shallow soil is underlain by native soil that consists of light brown to tan, fine- to medium-grained sand with varying amounts of silt and fine gravel, which extended to the termination depth of each boring. Bedrock was not encountered in any of the soil borings and is expected to be greater than 200 feet bgs.
 2. Hydrogeology: Groundwater depth ranged from about 27 to 30 feet bgs, with groundwater elevations ranging between about el. 6.65 to el. 6.99, respectively. Groundwater elevations are highest in the northwestern part of the Site and groundwater flows to the southeast. The general topography of the area surrounding the Site suggests that regional groundwater flow is the southeast toward Fresh Creek, about 1.3 miles to the south.
 3. Soil Chemistry: Shallow soil mixed with anthropogenic materials was identified up to a variable depth of about 13 feet bgs. Contaminants including SVOCs (including polycyclic aromatic hydrocarbons [PAH]), metals, and pesticides were detected at concentrations above UU, RU, and/or RURR SCOs. The greatest concentrations of PAHs were in the central and western parts of Lot 22 and the northwestern part of Lot 100 where the results of PAHs from one sample were an order of magnitude greater than results from other samples across the Site. The PAHs are likely related to historical Site uses or anthropogenic materials in the shallow soil matrix. Petroleum-nuisance conditions were identified during the RI in one soil boring (SB22) in the southeastern part of Lot 100 from 30 to 32 feet bgs; however, a source was not identified, and the petroleum-related contaminants in soil were below the UU SCOs. Metals, including barium, cadmium, copper, lead, nickel, and zinc, were detected above the UU, RU, and/or RURR SCOs in samples collected from shallow soil. The presence of barium may be associated with used brick in the soil matrix and airborne deposits from historical gas manufacturing (577 Sutter Avenue). Other metal impacts are attributed to historical Site uses and/or past improvements that may have used materials of unknown origins during construction. Pesticides, including 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and dieldrin were detected above UU, RU, and/or RURR SCOs in samples collected from shallow soil in all RI soil borings. 4,4'-DDT was detected above the UU SCO in native soil in sample SB16 between 12 and 14 feet bgs. PFOA and PFOS compounds were not detected above the UU guidance values.
 4. Groundwater: Concentrations of the VOC chloroform was detected at concentrations exceeding the SGVs in groundwater samples collected from MW14 and MW16. Chloroform is also a byproduct of adding chlorine to potable water and could be from a
-

potable source. PCE and TCE were detected in MW14 (PCE only), MW16, and MW17, but below the SGVs.

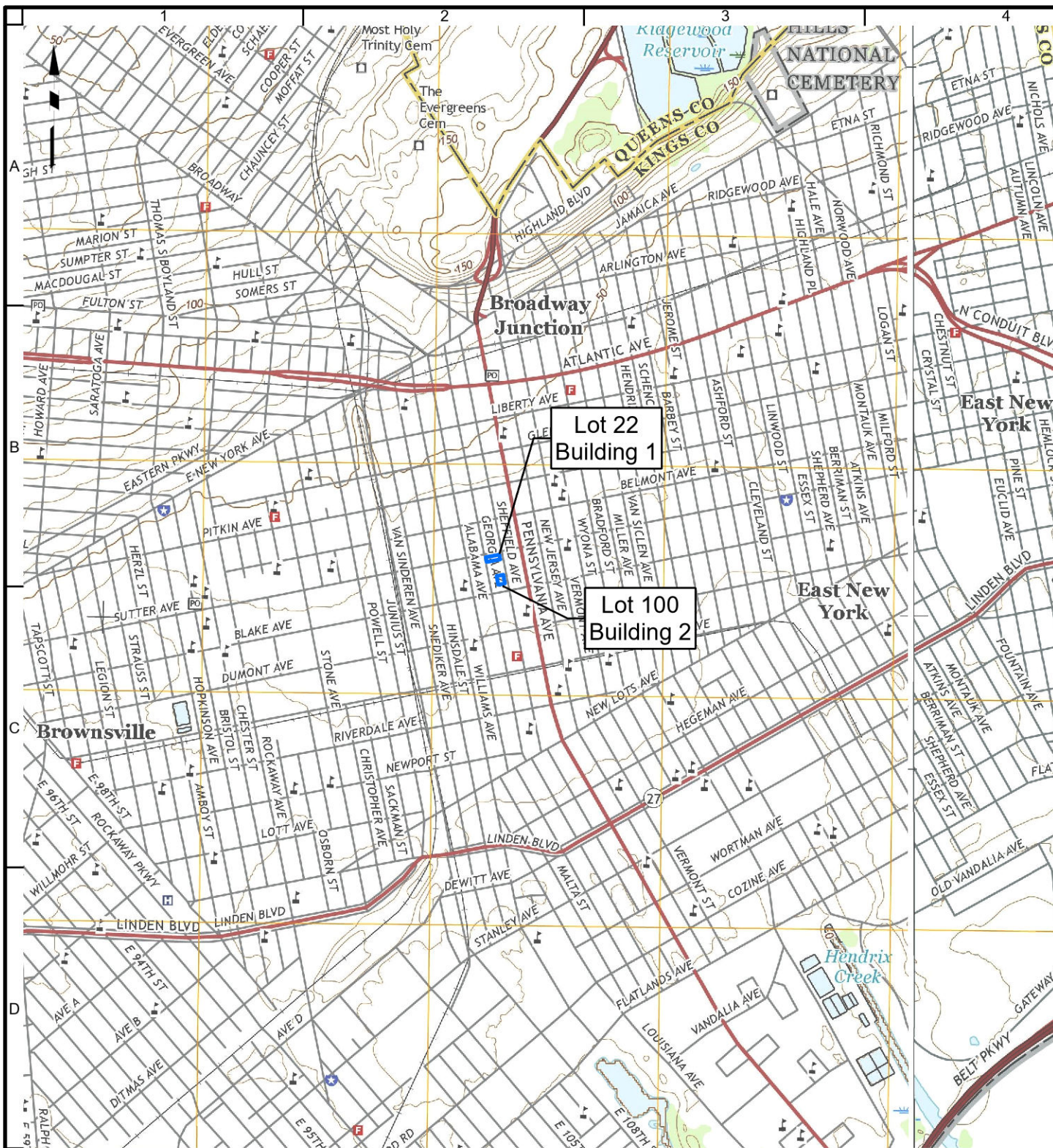
Total and dissolved metals concentrations in groundwater samples above SGVs are characteristic of regional groundwater conditions. PFAS compounds were detected in groundwater at concentrations exceeding the guidance values; however, an on-Site source was not identified.

5. Soil Vapor: Several petroleum-related and chlorinated VOCs were detected in soil vapor in Lot 22 and Lot 100 at concentrations that may warrant soil vapor intrusion mitigation in new enclosed structures that are built on-Site. A Site source was not identified.
6. Soil Vapor Intrusion Evaluation: A soil vapor intrusion evaluation was completed within the supermarket on Lot 22. Based on sub-slab vapor and indoor air concentrations, the NYSDEC Decision Matrices recommendation actions included “identify source(s) and resample or mitigate” for carbon tetrachloride and “monitor” for TCE. A second round of soil vapor intrusion evaluation was performed in February 2025 and an SVI Evaluation Report will be provided under separate cover.
7. Sufficient analytical data were gathered during the RI, together with previous studies, to establish soil cleanup levels and to develop a remedy for the Site. The final remedy will be detailed in the forthcoming RAWP to be prepared in accordance with NYS BCP Track II residential guidelines. The remedy will need to address shallow soil containing anthropogenic materials, soil vapors (VOCs), soil impacted with metals, SVOCs, and pesticides.

9.0 REFERENCES

1. Phase I ESA for Remeeder Houses, 350 Sheffield Avenue & 579 Blake Avenue, Brooklyn, New York, prepared by Langan, dated September 2020
 2. Phase II ESI Report for Remeeder Phase II Housing Project, Brooklyn, New York, prepared by Langan, dated May 2021
 3. New York State Department of Environmental Conservation, DER-10 Technical Guidance for Site Investigation and Remediation, issued May 3, 2010; effective June 18, 2010.
 4. New York State Department of Environmental Conservation, Part 375 of Title 6 of the New York Codes, Rules, and Regulations, Effective December 14, 2006.
 5. New York State Department of Health, Final Guidance for the Evaluation of Soil Vapor Intrusion in the State of New York, dated October 2006, revised May 2017.
 6. New York State Department of Environmental Conservation, Sampling, Analysis and Assessment of PFAS under NYSDEC's Part 375 Remedial Programs, dated April 2023.
 7. New York State Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) dated June 1998, revised February 2023.
 8. United States Environmental Protection Agency, Low Flow Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, EQASOP-GW 001, January 19, 2010, revised September 19, 2017.
 9. New York State Department of Environmental Conservation, Environmental Site Remediation Database Search, Accessed May 2023.
 10. Rickard, L.V., Isachsen, Y.W., and Fisher, D.W. United States Geological Survey. "Geologic Map of New York, Lower Hudson Sheet,". USGS 1970.
 11. Soil Vapor Intrusion Evaluation Work Plan for Sutter Crossing – Supermarket on Block 3770, Lot 22, Brooklyn, New York, prepared by Landan, dated September 2024
 12. Soil Vapor Intrusion Evaluation Report for Sutter Crossing – Supermarket on Block 3770, Lot 22, Brooklyn, New York, prepared by Landan, dated December 2024
-

FIGURES



LEGEND

APPROXIMATE SITE BOUNDARY



NOTES:

1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, BROOKLYN AND JAMAICA, NEW YORK, QUADRANGLES, DATED 2016.

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Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project

SUTTER CROSSING

BLOCK 3770, LOT Nos. 22 & 100

BROOKLYN

NEW YORK

Figure Title

**SITE LOCATION
MAP**

Project No.

170456301

Date

9/19/2023

Scale

1"=2,000'

Drawn By

MG

Submission Date

Figure No.

1



LEGEND

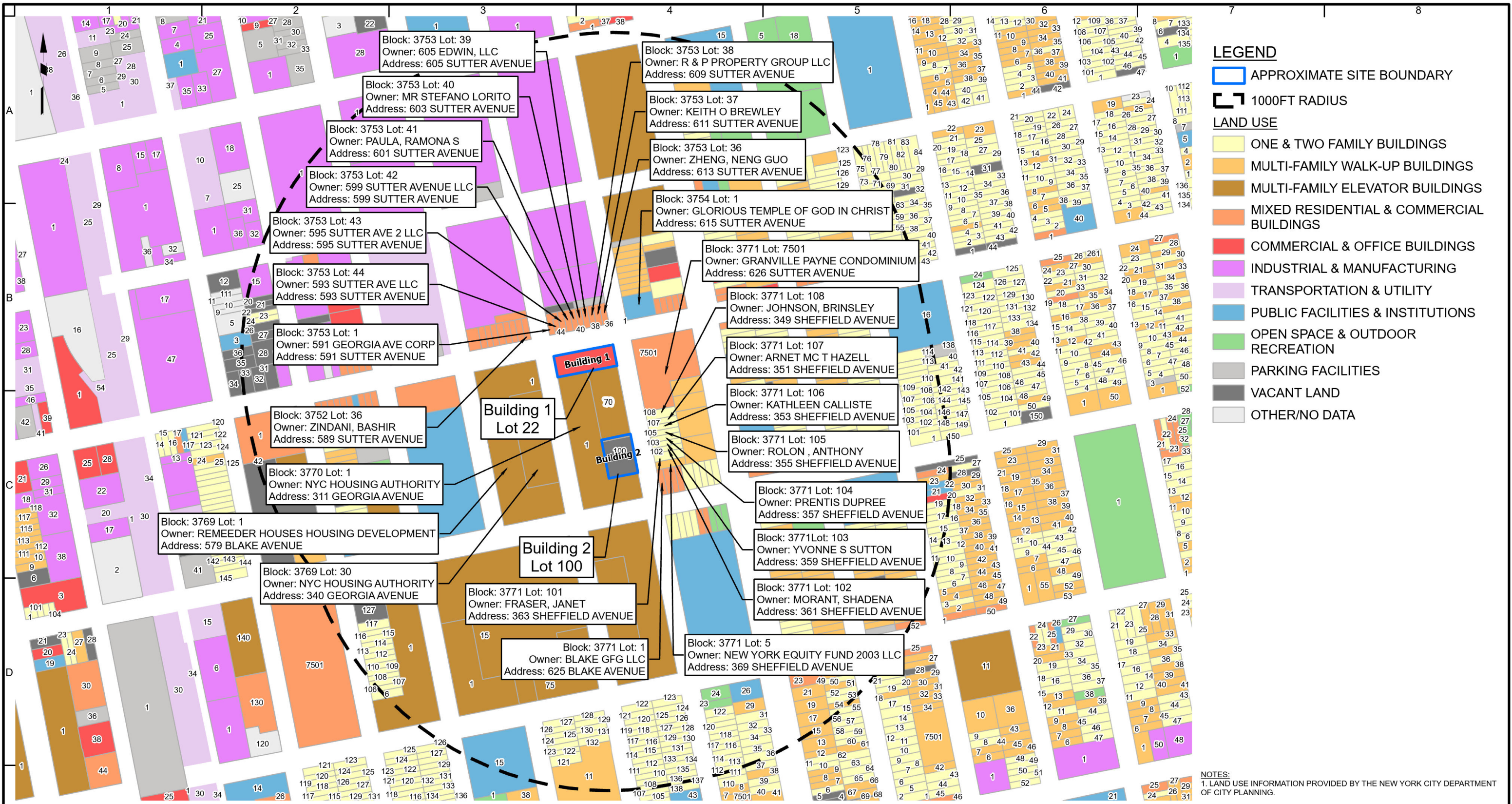
APPROXIMATE SITE BOUNDARY

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP DATED 05/28/2023.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.

SCALE IN FEET

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			170456301	2
			Date	
			1/9/2024	
			Scale	
			1"=80'	
			Drawn By	
			MG	



LEGEND

APPROXIMATE SITE BOUNDARY

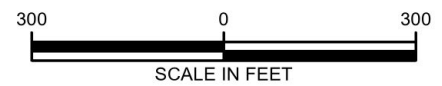
1000FT RADIUS

LAND USE

- ONE & TWO FAMILY BUILDINGS
- MULTI-FAMILY WALK-UP BUILDINGS
- MULTI-FAMILY ELEVATOR BUILDINGS
- MIXED RESIDENTIAL & COMMERCIAL BUILDINGS
- COMMERCIAL & OFFICE BUILDINGS
- INDUSTRIAL & MANUFACTURING
- TRANSPORTATION & UTILITY
- PUBLIC FACILITIES & INSTITUTIONS
- OPEN SPACE & OUTDOOR RECREATION
- PARKING FACILITIES
- VACANT LAND
- OTHER/NO DATA

NOTES:
1. LAND USE INFORMATION PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.

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			Date 1/9/2024	
			Scale 1"=300'	
			Drawn By MG	



LEGEND

- MONITORING WELL LOCATION
- GROUNDWATER ELEVATION CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION
- APPROXIMATE SITE BOUNDARY

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP DATED 05/28/2023.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. DEPTH TO GROUNDWATER MEASUREMENTS WERE OBTAINED DURING A SYNOPSIS GAUGING EVENT ON MAY 25, 2023.
4. GROUNDWATER ELEVATIONS ARE BASED ON A SURVEY PERFORMED BY LANGAN ON JUNE 2, 2023.
5. ALL ELEVATIONS ARE REFERENCED IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
6. MW19 GROUNDWATER ELEVATION MEASUREMENT IS AN OUTLIER AND WAS OMITTED FROM THE GROUNDWATER CONTOURS.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.

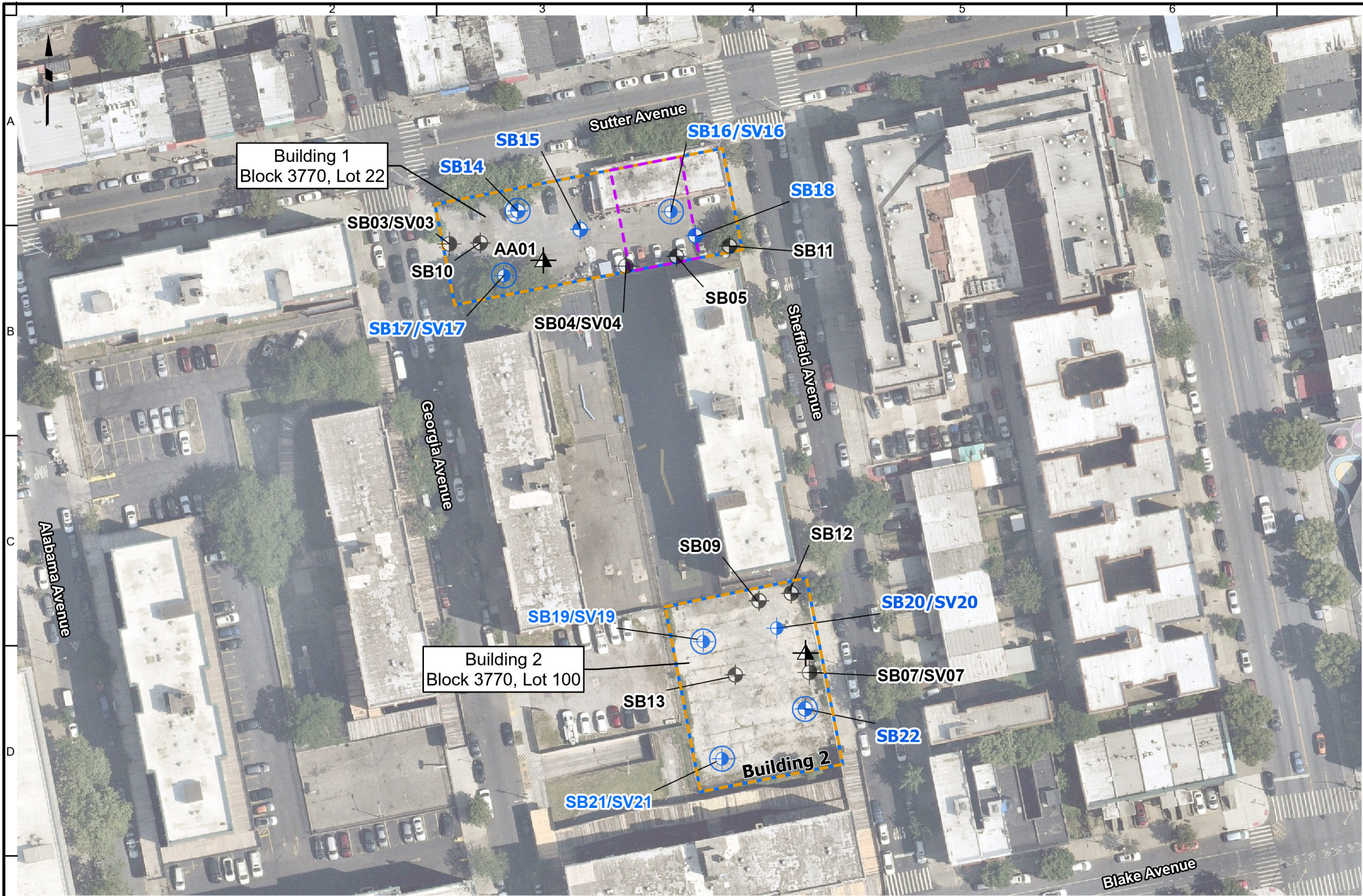
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Project
SUTTER CROSSING
BLOCK 3770, LOT Nos. 22 & 100
BROOKLYN NEW YORK

Figure Title
**GROUNDWATER
CONTOUR MAP**

Project No. 170456301	Figure No. 4
Date 12/22/2023	
Scale 1"=80'	
Drawn By MG	



LEGEND

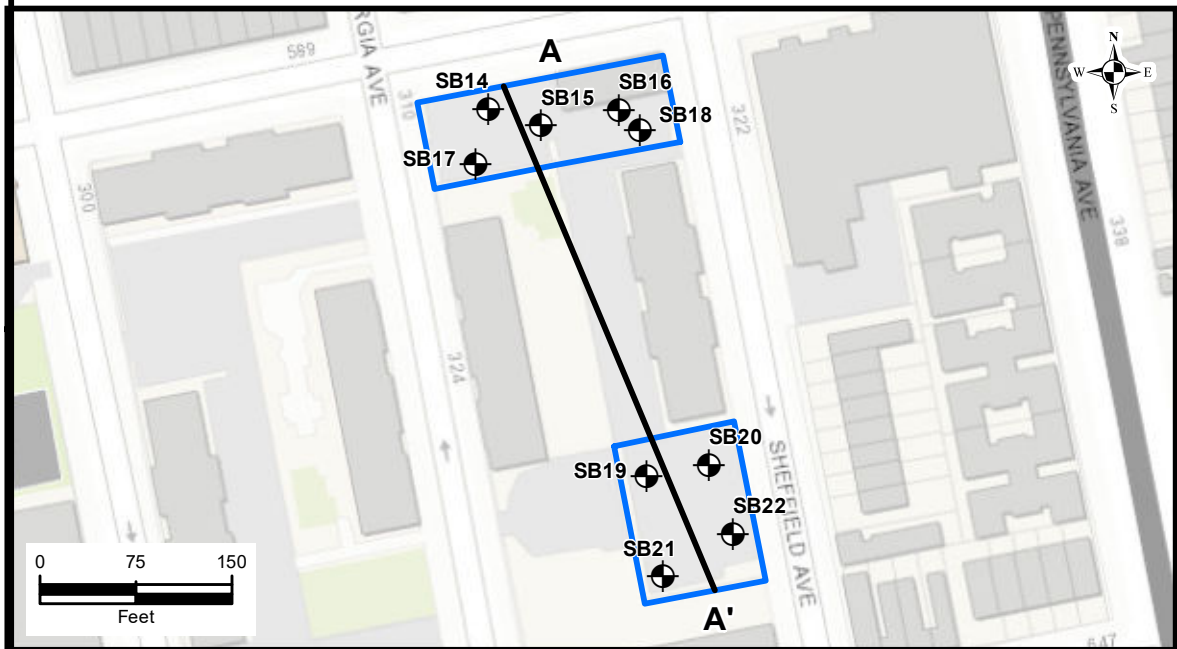
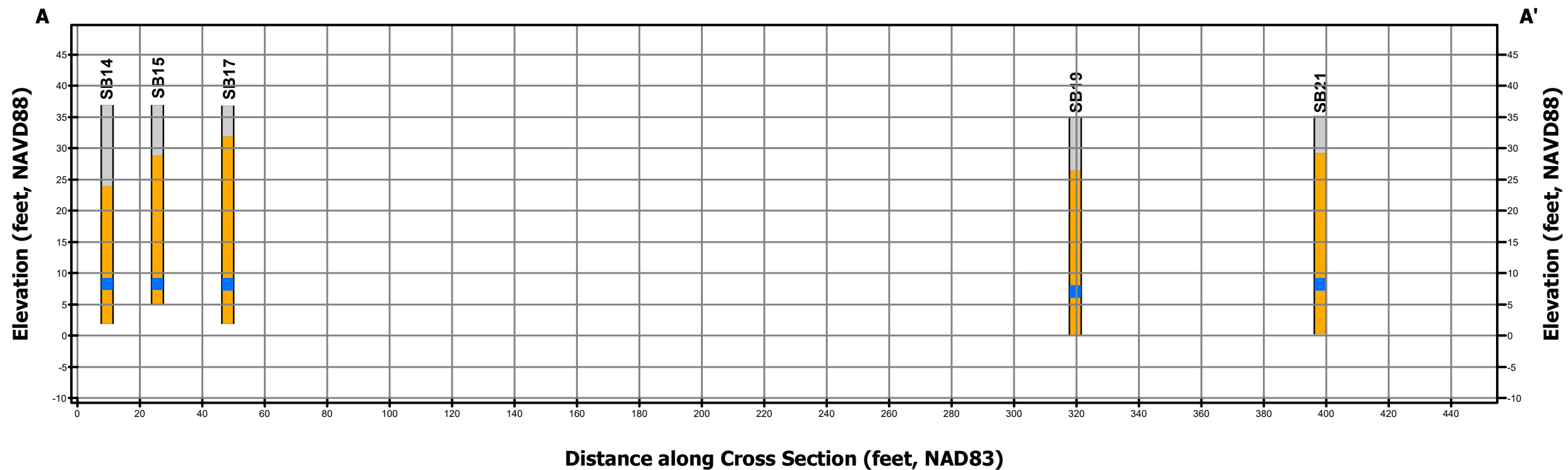
- PREVIOUS SOIL BORING LOCATION
- PREVIOUS SOIL BORING/SOIL VAPOR SAMPLE LOCATION
- SOIL BORING LOCATION
- SOIL BORING/SOIL VAPOR LOCATION
- MONITORING WELL LOCATION
- AMBIENT AIR SAMPLE LOCATION
- APPROXIMATE SITE BOUNDARY
- AOC 1: HISTORICAL SITE OPERATIONS, INCLUDING DRY CLEANING AND MILLINERY
- AOC 2: SVOC-, PESTICIDE- AND METALS-IMPACTED SOIL

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP DATED 05/28/2023.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. SVOC: SEMIVOLATILE ORGANIC COMPOUNDS.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.

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			170456301	5
			Date	
			1/9/2024	
			Scale	
			1"=70'	
			Drawn By	
			MG	



Legend

- Approximate Site Boundary
- Soil Boring Location
- Shallow Soil Containing Anthropogenic Materials
- Fine-to Medium-grained Sand with Varying Amounts of Silt and Fine Gravel
- Groundwater Elevation

- Notes:**
1. Vertical exaggeration 2:1
 2. This profile represents a generalized soil cross section depicting location, elevation, and environmental and engineering properties between points of exploration. Variations in sunsurface conditions should be expected between borings.
 3. NAVD88 = North American Vertical Datum of 1988
 4. NAD83 = North American Datum of 1983

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Project

SUTTER CROSSING

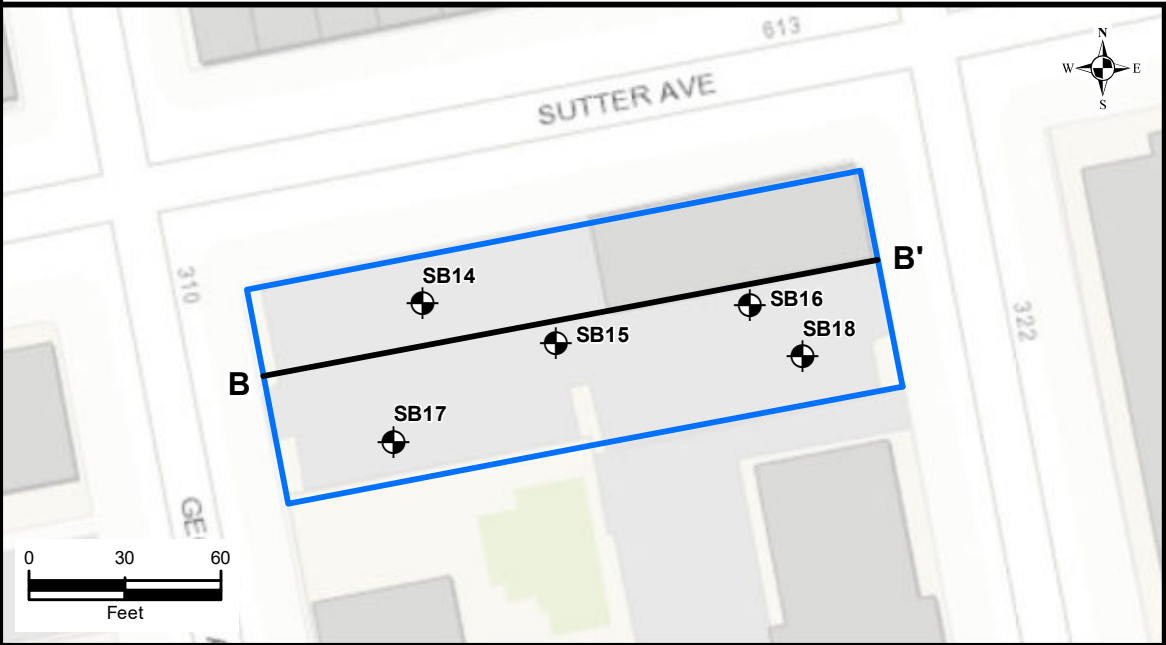
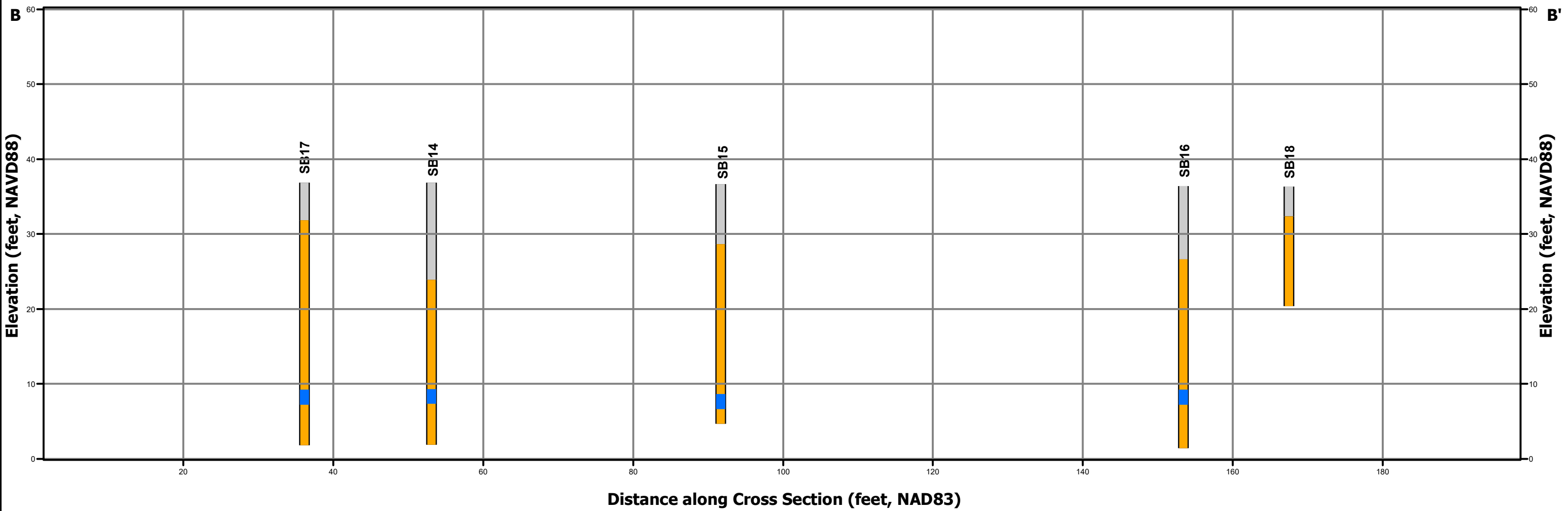
BLOCK 3770, LOT Nos. 22 & 100

BROOKLYN NEW YORK

Figure Title

**SUBSURFACE
PROFILE A-A'**

Project No. 170456301	6A
Date 1/9/2024	
Scale AS SHOWN	
Drawn By MG	



- Legend**
- Approximate Site Boundary
 - Soil Boring Location
 - Shallow Soil Containing Anthropogenic Materials
 - Fine-to Medium-grained Sand with Varying Amounts of Silt and Fine Gravel
 - Groundwater Elevation

Notes:

1. Vertical exaggeration 1:1
2. This profile represents a generalized soil cross section depicting location, elevation, and environmental and engineering properties between points of exploration. Variations in subsurface conditions should be expected between borings.
3. NAVD88 = North American Vertical Datum of 1988
4. NAD83 = North American Datum of 1983

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Project

SUTTER CROSSING

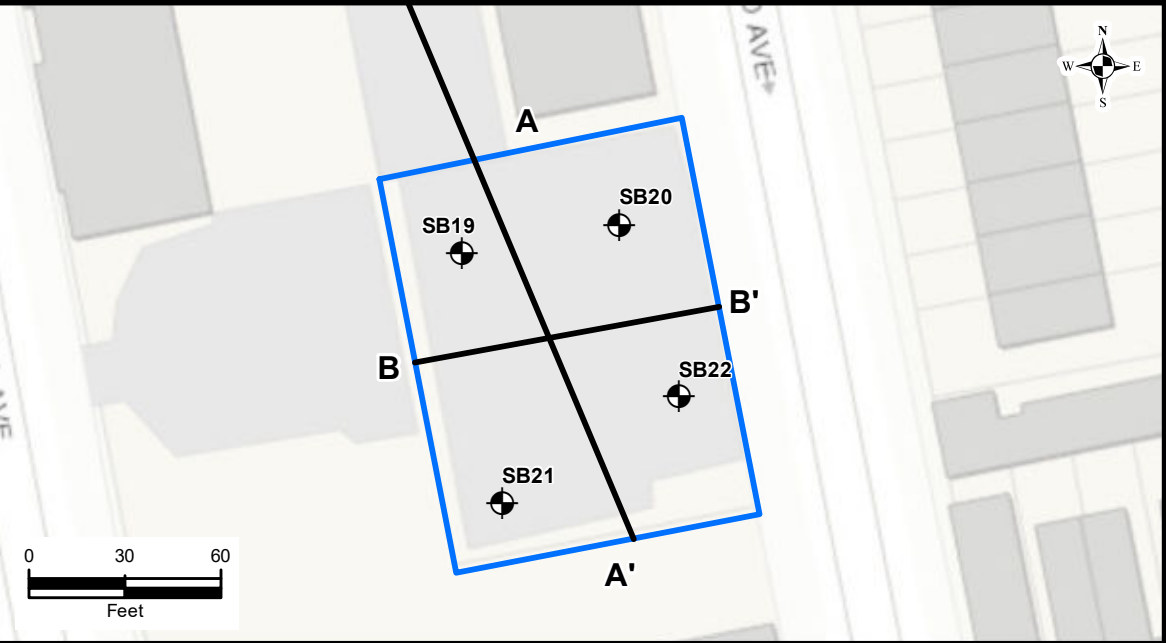
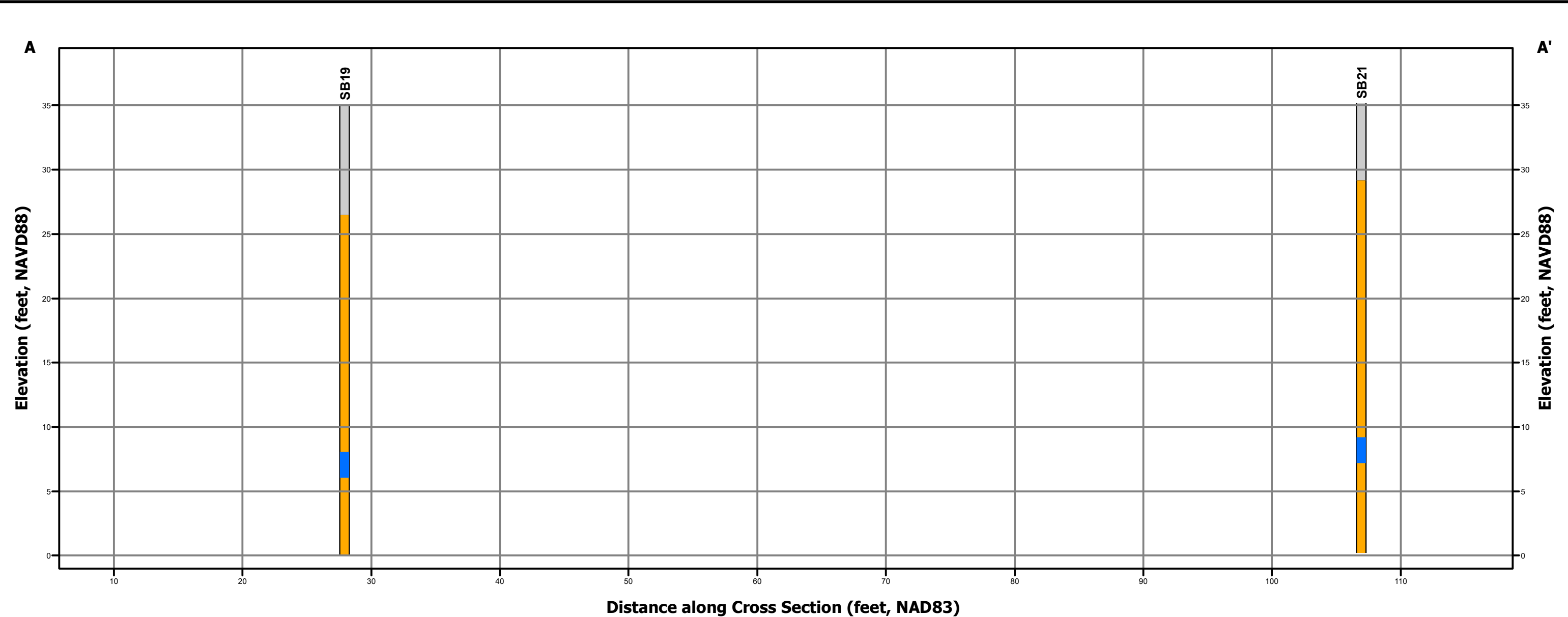
BLOCK 3770, LOT Nos. 22 & 100

BROOKLYN NEW YORK

Figure Title

SUBSURFACE PROFILE B-B'

Project No. 170456301	6B
Date 1/9/2024	
Scale AS SHOWN	
Drawn By MG	



Legend

- Approximate Site Boundary
- Sample Boring Location
- Shallow Soil Containing Anthropogenic Materials
- Fine-to Medium-grained Sand with Varying Amounts of Silt and Fine Gravel
- Groundwater Elevation

Notes:
1. Vertical exaggeration 1:1
2. This profile represents a generalized soil cross section depicting location, elevation, and environmental and engineering properties between points of exploration. Variations in sunsurface conditions should be expected between borings.
3. NAVD88 = North American Vertical Datum of 1988
4. NAD83 = North American Datum of 1983

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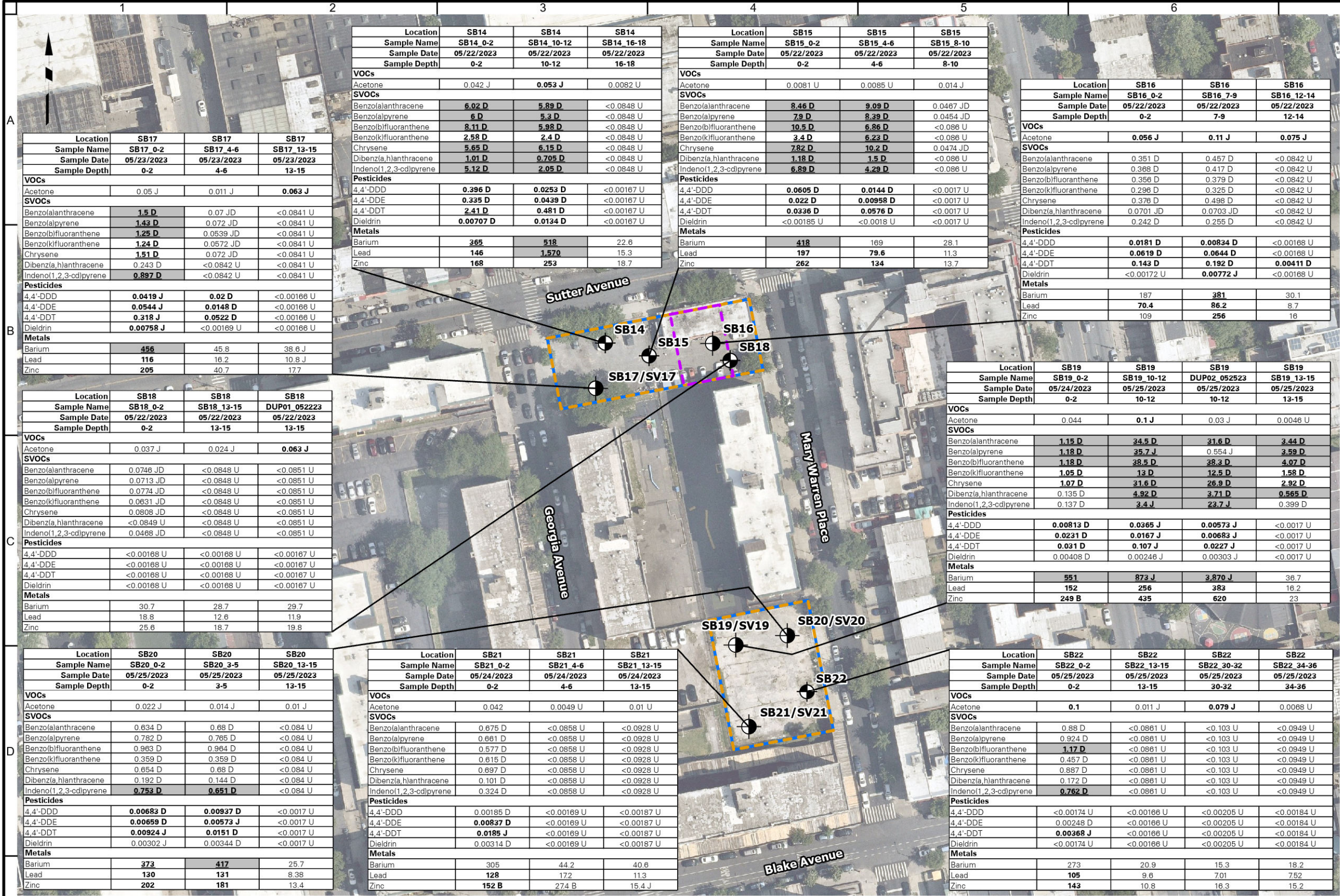
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Project
SUTTER CROSSING
BLOCK 3770, LOT Nos. 22 & 100
BROOKLYN NEW YORK

Figure Title
**SUBSURFACE
PROFILE A-A'**

Project No.
170456301
Date
1/9/2024
Scale
AS SHOWN
Drawn By
MG

Figure
6C



LEGEND

APPROXIMATE SITE BOUNDARY

SOIL BORING LOCATION

SOIL BORING/SOIL VAPOR LOCATION

AOC 1: HISTORICAL SITE OPERATIONS, INCLUDING DRY CLEANING AND MILLINERY

SVOC-, PESTICIDE- AND METALS- IMPACTED SOIL

Analyte	NYSDEC Part 375 Unrestricted Use SCO's	NYSDEC Part 375 Restricted Use Restricted-Residential SCO's	NYSDEC Part 375 Restricted Use Residential SCO's
VOCs			
Acetone	0.05	100	100
SVOCs			
Benzo(a)anthracene	1	1	1
Benzo(a)pyrene	1	1	1
Benzo(b)fluoranthene	1	1	1
Benzo(k)fluoranthene	0.8	3.9	1
Chrysene	1	3.9	1
Dibenz(a,h)anthracene	0.33	0.33	0.33
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5
Pesticides			
4,4'-DDD	0.0033	13	2.6
4,4'-DDE	0.0033	8.9	1.8
4,4'-DDT	0.0033	7.9	1.7
Dieldrin	0.005	0.2	0.039
Metals			
Barium	350	400	350
Lead	63	400	400
Zinc	109	10000	2200

Exceedence Summary:

- 10 - Result exceeds Unrestricted Use SCO's
10 - Result exceeds NYSDEC Part 375 Restricted Use Restricted-Residential SCO's
10 - Result exceeds Restricted Use Residential SCO's

NOTES:

1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP DATED 05/28/2023.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE, RESTRICTED USE RESTRICTED-RESIDENTIAL, AND RESTRICTED USE RESIDENTIAL SOIL CLEANUP OBJECTIVES (SCO).
4. CONCENTRATIONS ARE REPORTED IN MILLIGRAM PER KILOGRAM (mg/kg)
5. RL - REPORTING LIMIT
6. <RL - NOT DETECTED
7. VOC - VOLATILE ORGANIC COMPOUND
8. SVOC - SEMIVOLATILE ORGANIC COMPOUND

QUALIFIERS:

- D - THE CONCENTRATION REPORTED IS A RESULT OF A DILUTED SAMPLE.
B - THE ANALYTE WAS FOUND IN THE ASSOCIATED ANALYSIS BATCH BLANK.
J - THE ANALYTE WAS POSITIVELY IDENTIFIED AND THE ASSOCIATED NUMERICAL VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.
U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE LEVEL OF THE RL OR THE SAMPLE CONCENTRATION FOR RESULTS IMPACTED BY BLANK CONTAMINATION.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.



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Project

SUTTER CROSSING

BLOCK 3770, LOT Nos. 22 & 100

BROOKLYN

NEW YORK

Figure Title

SOIL SAMPLE LOCATION AND ANALYTICAL RESULTS MAP

Project No.

170456301

Date

4/12/2024

Scale

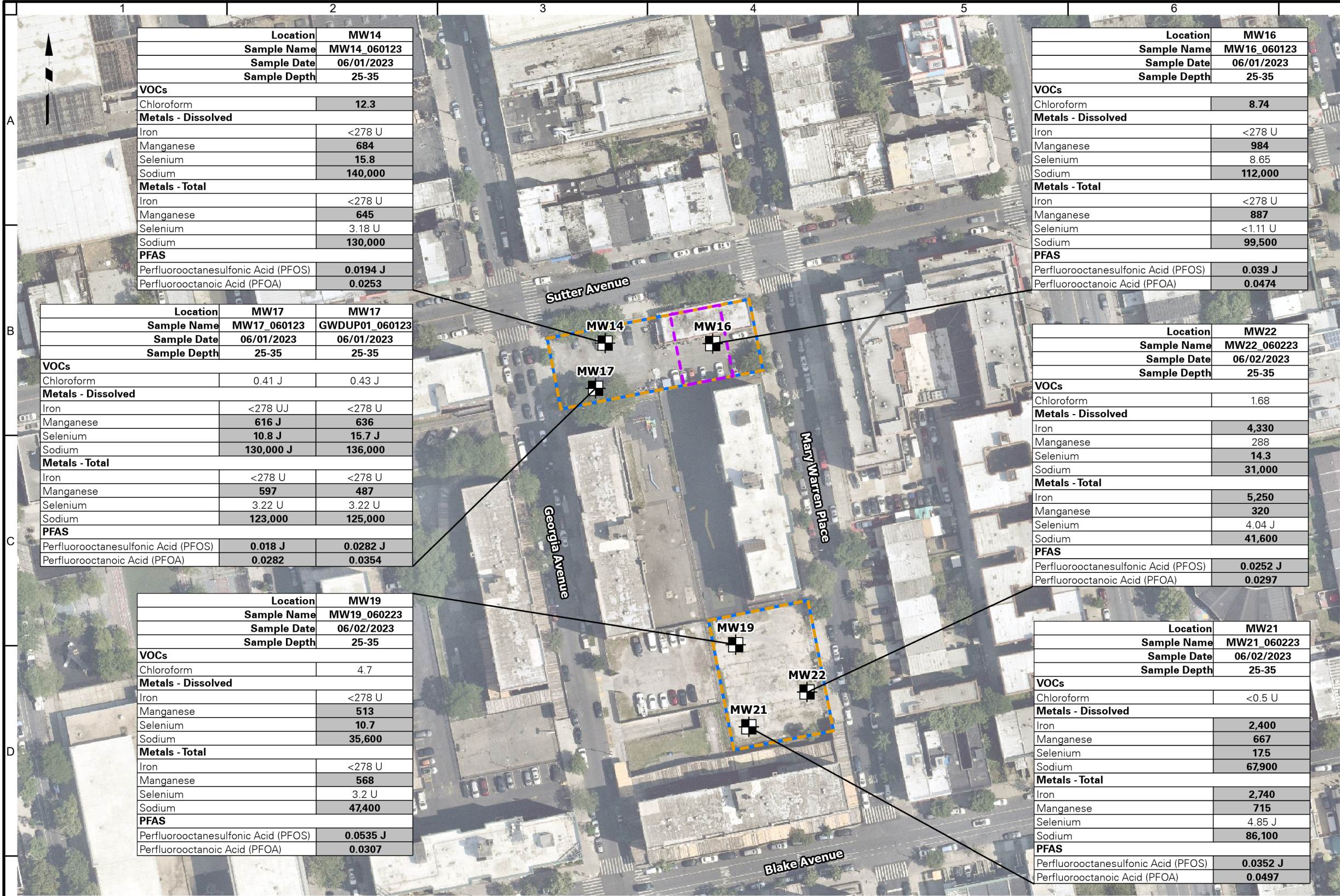
1"=100'

Drawn By

MG

Figure No.

7



LEGEND

- MONITORING WELL LOCATION
- APPROXIMATE SITE BOUNDARY
- AOC 1: HISTORICAL SITE OPERATIONS, INCLUDING DRY CLEANING AND MILLINERY
- SVOC-, PESTICIDE- AND METALS-IMPACTED SOIL

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Metals - Dissolved	
Iron	300
Manganese	300
Selenium	10
Sodium	20000
Metals - Total	
Iron	300
Manganese	300
Selenium	10
Sodium	20000
PFAS	
Perfluorooctanesulfonic Acid (PFOS)	0.0027
Perfluorooctanoic Acid (PFOA)	0.0067

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP DATED 05/28/2023.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 CODES, RULES, AND REGULATIONS (NYCRR) PART 703.5 AND THE NYSDEC TECHNICAL AND OPERATION GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR CLASS GA WATER AND PUBLISHED ADDENDA (HEREIN COLLECTIVELY REFERENCED AS "NYSDEC SGVS").
4. CONCENTRATIONS ARE REPORTED IN MICROGRAM PER LITER (ug/l).
5. RL - REPORTING LIMIT
6. < RL - NOT DETECTED
7. VOC - VOLATILE ORGANIC COMPOUND
8. SVOC - SEMIVOLATILE ORGANIC COMPOUND

QUALIFIERS:
J - THE ANALYTE WAS POSITIVELY IDENTIFIED AND THE ASSOCIATED NUMERICAL VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.
U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE LEVEL OF THE RL OR THE SAMPLE CONCENTRATION FOR RESULTS IMPACTED BY BLANK CONTAMINATION.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.

100 0 100
SCALE IN FEET

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Project
SUTTER CROSSING
BLOCK 3770, LOT Nos. 22 & 100
BROOKLYN NEW YORK

Figure Title
**GROUNDWATER
SAMPLE AND
ANALYTICAL
RESULTS MAP**

Project No. 170456301	Figure No. 8
Date 2/21/2024	
Scale 1"=100'	
Drawn By MG	



Location		
IA04_SSV04		
Sample Name	IA04_020325	SSV04_020325
Sample Date	02/03/2025	02/03/2025
Sample Type	IA	SSV
VOCs		
1,2,4-Trimethylbenzene	1.92 D	1.07 D
1,3,5-Trimethylbenzene (Mesitylene)	0.768 D	<0.825 U
1,3-Dichlorobenzene	<0.522 U	8.48 D
1,4-Dichlorobenzene	2.09 D	<1.01 U
2,2,4-Trimethylpentane	1.87 D	0.549 D
2-Hexanone (MBK)	<0.711 U	<1.38 U
4-Ethyltoluene	2.01 D	1.07 D
Acetone	32.1 D	375 D
Acrylonitrile	<2.45 U	<4.74 U
Benzene	1.08 D	0.858 D
Carbon Tetrachloride	0.382 D	0.528 D
Chloroform	5.26 D	141 D
Chloromethane	1.33 D	<0.347 U
Cis-1,2-Dichloroethene	<0.172 U	<0.333 U
Cyclohexane	0.508 D	<0.578 U
Dichlorodifluoromethane	7.34 D	39 D
Ethyl Acetate	4.25 D	9.98 D
Ethylbenzene	0.905 D	1.24 D
Isopropanol	41.1 D	173 D
M,P-Xylene	2.94 D	2.26 J
Methyl Ethyl Ketone (2-Butanone)	1.74 D	2.92 D
Methyl Methacrylate	0.782 D	<0.687 U
n-Heptane	1.64 D	1.17 D
n-Hexane	1.38 D	<0.592 U
o-Xylene (1,2-Dimethylbenzene)	1.21 D	2.62 D
Propylene	2.15 D	2.34 D
Styrene	0.666 D	<0.715 U
Tetrachloroethene (PCE)	1.06 D	31.3 D
Tetrahydrofuran	0.998 D	<0.99 U
Toluene	8.67 D	5.44 D
Trichloroethene (TCE)	<0.187 U	4.6 BD
Trichlorofluoromethane	1.27 D	2.08 D

Location		
IA05_SSV05		
Sample Name	IA05_020325	SSV05_020325
Sample Date	02/03/2025	02/03/2025
Sample Type	IA	SSV
VOCs		
1,2,4-Trimethylbenzene	2.02 D	1.37 D
1,3,5-Trimethylbenzene (Mesitylene)	0.815 D	<0.762 U
1,3-Dichlorobenzene	<0.525 U	9.69 D
1,4-Dichlorobenzene	2.2 D	0.931 D
2,2,4-Trimethylpentane	1.75 D	<0.362 U
2-Hexanone (MBK)	0.751 D	<1.27 U
4-Ethyltoluene	2.06 D	1.45 D
Acetone	33.1 D	92.2 D
Acrylonitrile	<2.46 U	<4.37 U
Benzene	1.2 D	1.39 D
Carbon Tetrachloride	0.384 D	0.39 D
Chloroform	5.41 D	83.9 D
Chloromethane	1.64 D	1.02 D
Cis-1,2-Dichloroethene	<0.173 U	2.89 D
Cyclohexane	0.451 D	<0.533 U
Dichlorodifluoromethane	7.04 D	33.9 D
Ethyl Acetate	4.09 D	17.1 D
Ethylbenzene	0.91 D	1.68 D
Isopropanol	42.6 D	22.1 D
M,P-Xylene	2.92 D	2.96 J
Methyl Ethyl Ketone (2-Butanone)	1.8 D	4.48 D
Methyl Methacrylate	0.715 D	1.01 D
n-Heptane	1.65 D	1.46 D
n-Hexane	1.35 D	0.655 D
o-Xylene (1,2-Dimethylbenzene)	1.18 D	3.3 D
Propylene	<0.15 U	2.13 D
Styrene	0.707 D	<0.66 U
Tetrachloroethene (PCE)	1.07 D	49 D
Tetrahydrofuran	0.953 D	<0.914 U
Toluene	8.65 D	8.46 D
Trichloroethene (TCE)	<0.188 U	11.1 BD
Trichlorofluoromethane	1.28 D	1.48 D

Location		
AA04		
Sample Name	AA04_020325	
Sample Date	02/03/2025	
Sample Type	AA	
VOCs		
1,2,4-Trimethylbenzene	0.544 D	
1,3,5-Trimethylbenzene (Mesitylene)	<0.418 U	
1,3-Dichlorobenzene	<0.512 U	
1,4-Dichlorobenzene	<0.512 U	
2,2,4-Trimethylpentane	0.914 D	
2-Hexanone (MBK)	<0.697 U	
4-Ethyltoluene	<0.418 U	
Acetone	11.1 D	
Acrylonitrile	789 D	
Benzene	0.924 D	
Carbon Tetrachloride	0.321 D	
Chloroform	<0.416 U	
Chloromethane	1.07 D	
Cis-1,2-Dichloroethene	<0.169 U	
Cyclohexane	0.322 D	
Dichlorodifluoromethane	1.85 D	
Ethyl Acetate	6.38 D	
Ethylbenzene	0.591 D	
Isopropanol	2.61 D	
M,P-Xylene	2.03 D	
Methyl Ethyl Ketone (2-Butanone)	1 D	
Methyl Methacrylate	0.557 D	
n-Heptane	0.419 D	
n-Hexane	0.87 D	
o-Xylene (1,2-Dimethylbenzene)	0.739 D	
Propylene	1.27 D	
Styrene	<0.363 U	
Tetrachloroethene (PCE)	<0.577 U	
Tetrahydrofuran	<0.502 U	
Toluene	2.73 D	
Trichloroethene (TCE)	<0.114 U	
Trichlorofluoromethane	1 D	

Location		
IA06_SSV06		
Sample Name	IA06_020325	SSV06_020325
Sample Date	02/03/2025	02/03/2025
Sample Type	IA	SSV
VOCs		
1,2,4-Trimethylbenzene	1.89 D	<1.51 U
1,3,5-Trimethylbenzene (Mesitylene)	0.748 D	<1.51 U
1,3-Dichlorobenzene	<0.538 U	6.46 D
1,4-Dichlorobenzene	2.21 D	<1.85 U
2,2,4-Trimethylpentane	1.71 D	<0.718 U
2-Hexanone (MBK)	<0.733 U	<2.52 U
4-Ethyltoluene	2.07 D	<1.51 U
Acetone	34 D	239 D
Acrylonitrile	<2.52 U	<8.67 U
Benzene	1.09 D	0.981 D
Carbon Tetrachloride	0.394 D	<0.483 U
Chloroform	5.42 D	90.1 D
Chloromethane	1.39 D	<0.634 U
Cis-1,2-Dichloroethene	<0.177 U	1.95 D
Cyclohexane	0.462 D	<1.06 U
Dichlorodifluoromethane	6.9 D	58.8 D
Ethyl Acetate	4.32 D	15.4 D
Ethylbenzene	0.855 D	1.6 D
Isopropanol	44 D	39.6 D
M,P-Xylene	2.72 D	2.67 J
Methyl Ethyl Ketone (2-Butanone)	1.95 D	9.24 D
Methyl Methacrylate	0.696 D	<1.26 U
n-Heptane	1.43 D	1.64 D
n-Hexane	1.29 D	<1.08 U
o-Xylene (1,2-Dimethylbenzene)	1.17 D	2.93 D
Propylene	<0.154 U	<0.529 U
Styrene	0.686 D	<1.31 U
Tetrachloroethene (PCE)	1.21 D	38.5 D
Tetrahydrofuran	0.924 D	<1.81 U
Toluene	8.7 D	8.91 D
Trichloroethene (TCE)	<0.192 U	11.1 BD
Trichlorofluoromethane	1.31 D	1.9 D

Legend

- Approximate Site Boundary
- Sub-Slab Vapor Sample Location
- Indoor Air Sample Location
- Ambient Air Sample Location

Analyte	NYSDOH AGVs
VOCs	
1,2,4-Trimethylbenzene	NS
1,3,5-Trimethylbenzene (Mesitylene)	NS
1,3-Dichlorobenzene	NS
1,4-Dichlorobenzene	NS
2,2,4-Trimethylpentane	NS
2-Hexanone (MBK)	NS
4-Ethyltoluene	NS
Acetone	NS
Acrylonitrile	NS
Benzene	NS
Carbon Tetrachloride	NS
Chloroform	NS
Chloromethane	NS
Cis-1,2-Dichloroethene	NS
Cyclohexane	NS
Dichlorodifluoromethane	NS
Ethyl Acetate	NS
Ethylbenzene	NS
Isopropanol	NS
M,P-Xylene	NS
Methyl Ethyl Ketone (2-Butanone)	NS
Methyl Methacrylate	NS
n-Heptane	NS
n-Hexane	NS
o-Xylene (1,2-Dimethylbenzene)	NS
Propylene	NS
Styrene	NS
Tetrachloroethene (PCE)	30
Tetrahydrofuran	NS
Toluene	NS
Trichloroethene (TCE)	2
Trichlorofluoromethane	NS

Exceedance Summary:
10 - Result exceeds NYSDOH AGVs

- Notes:
- Aerial imagery provided through Langan's subscription to Near Map dated 05/28/2023.
 - Tax lot boundary provided by the New York City Department of City Planning.
 - Indoor air sample analytical results are compared to the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (February 2024).
 - NS – No standard
 - RL – Reporting limit
 - Sampling locations shown are approximate and based on field measurements.
 - VOC = Volatile organic compound
 - Concentrations are in µg/m3
 - µg/m3 = Micrograms per cubic meter

Qualifiers:
D – The concentration reported is a result of a diluted sample.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless acting under the direction of a licensed professional engineer, land surveyor or geologist, to alter this item in any way.



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Project

SUTTER CROSSING

BLOCK 3770, LOT No. 22

BROOKLYN

NEW YORK

Figure Title

**SUB-SLAB AND
INDOOR AIR
ANALYTICAL
RESULTS MAP**

Project No.

170456301

Date

4/3/2025

Scale

1"=30'

Drawn By

GS

Figure No.

10

TABLES

Table 1
Remedial Investigation Report
Sample Summary

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Boring ID	Sample ID	Depth interval	Sample Date	Analytical Parameters	Rationale
Soil Samples					
SB14	SB14_0-2	0-2	5/22/2023	Part 375/TCL VOCs, SVOCs, PCBs, pesticides, herbicides, TAL metals (including hexavalent and trivalent chromium), cyanide, PFAS by EPA Method 1633, and 1,4-dioxane by USEPA method 8270 SIM	Investigate AOC 1 & 2
	SB14_10-12	10-12	5/22/2023		
	SB14_16-18	16-18	5/22/2023		
SB15	SB15_0-2	0-2	5/22/2023		
	SB15_4-6	4-6	5/22/2023		
	SB15_8-10	8-10	5/22/2023		
SB16	SB16_0-2	0-2	5/22/2023		
	SB16_7-9	7-9	5/22/2023		
	SB16_12-14	12-14	5/22/2023		
SB17	SB17_0-2	0-2	5/23/2023		
	SB17_4-6	4-6	5/23/2023		
	SB17_13-15	13-15	5/23/2023		
SB18	SB18_0-2	0-2	5/22/2023		
	SB18_13-15	13-15	5/22/2023		
SB19	SB19_0-2	0-2	5/24/2023		
	SB19_10-12	10-12	5/25/2023		
	SB19_13-15	13-15	5/25/2023		
SB20	SB20_0-2	0-2	5/25/2023		
	SB20_3-5	3-5	5/25/2023		
	SB20_13-15	13-15	5/25/2023		
SB21	SB21_0-2	0-2	5/24/2023		
	SB21_4-6	4-6	5/24/2023		
	SB21_13-15	13-15	5/24/2023		
SB22	SB22_0-2	0-2	5/25/2023		
	SB22_13-15	13-15	5/25/2023		
	SB22_30-32	30-32	5/25/2023		
	SB22_34-36	34-36	5/25/2023		
Soil QA/QC Samples					
		Parent Sample			
SODUP01	DUP01_052223	SB18_13-15	5/22/2023	Part 375/TCL VOCs, SVOCs, PCBs, pesticides, herbicides, TAL metals (including hexavalent and trivalent chromium), cyanide, PFAS by USEPA Method 1633, and 1,4-dioxane by USEPA method 8270 SIM	QA/QC
SODUP02	DUP02_052523	SB19_10-12	5/25/2023		
MS/MSD	SB17_13-15	SB17_13-15	5/23/2023		
MS/MSD	SB21_4-6	SB21_4-6	5/24/2023		
SOFB02	SOFB02_052323	N/A	5/23/2023		
SOFB04	SOFB04_052523	N/A	5/25/2023		
SOFB01	SOFB01_052223	N/A	5/22/2023		
SOFB04	SOFB03_052423	N/A	5/24/2023	PFAS by USEPA Method 1633	
TB01	TB01_05223	N/A	5/22/2023	Part 375/TCL VOCs	
TB02	TB02_052323	N/A	5/23/2023		
TB03	TB03_052423	N/A	5/24/2023		
TB04	TB04_052523	N/A	5/25/2023		
Groundwater Samples					
MW14	MW14_060123	N/A	6/1/2023	Part 375/ TCL VOCs, SVOCs, total and dissolved Part 375/ TAL inorganics/metals (including trivalent and hexavalent chromium), PFAS by USEPA method 1633 and 1,4-dioxane by USEPA method 8270 SIM	Investigate AOC 1
MW16	MW16_060123	N/A	6/1/2023		
MW17	MW17_060123	N/A	6/1/2023		
MW19	MW19_060223	N/A	6/2/2023		
MW21	MW21_060223	N/A	6/2/2023		
MW22	MW22_060223	N/A	6/2/2023		
Groundwater QA/QC Samples					
GWDUP01	GWDUP01_060123	MW17_060123	6/1/2023	Part 375/ TCL VOCs, SVOCs, total and dissolved Part 375/ TAL inorganics/metals (including trivalent and hexavalent chromium), PFAS by USEEPA method 1633 and 1,4-dioxane by USEPA method 8270 SIM	QA/QC
GW MS/MSD	MW17_060123	MW17_060123	6/1/2023		
GWFB02	GWFB01_060223	N/A	6/2/2023		
GWFB01	GWFB02_060123	N/A	6/1/2023	PFAS by EPA method 1633	
TB05	TB05_060123	N/A	6/1/2023	Part 375/TCL VOCs	
TB06	TB06_060223	N/A	6/2/2023		
Soil Vapor Samples					
SV16	SV16_052323	N/A	5/23/2023	VOCs by USEPA Method TO-15	Investigate AOC 1
SV17	SV17_052323	N/A	5/23/2023		
SV19	SV19_052523	N/A	5/25/2023		
SV20	SV20_052523	N/A	5/25/2023		
SV21	SV21_052523	N/A	5/25/2023		
Ambient Air Samples					
AA01	AA01_052323	N/A	5/23/2023	VOCs by USEPA Method TO-15	Investigate AOC 1
AA02	AA02_052523	N/A	5/25/2023		

Areas of Concern (AOCs):

AOC 1: Historical Site Operations

AOC 2: SVOC-, Pesticide-, and Metals-impacted Soil

Notes:

bgs = below ground surface

VOC = volatile organic compounds

PCB = polychlorinated biphenyls

SVOC = Semivolatile organic compounds

PFAS = Per- and Polyfluoroalkyl Substances

TAL = Target Analyte List

TCL = Target Compound List

USEPA = United States Environmental Protection Agency

Table 2

Remedial Investigation Report

Monitoring Well Construction Summary

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Monitoring Well ID	Associated Soil Boring	Date Installed	Equipment Used	Inner Well Diameter (inches)	Total Depth (feet bgs)	Screened Interval (feet bgs)	Screen Length (feet)	Screen Material	Riser Interval (feet bgs)	Riser Material	Top of Riser Elevation (NAVD88)
MW14	SB14	5/23/2023	Geoprobe® 6610 DT	2	35	25-35	10	PVC No. 10 Slot	0-25	PVC	36.59
MW16	SB16	5/23/2023		2	35	25-35	10		0-25		36.11
MW17	SB17	5/23/2023		2	35	25-35	10		0-25		36.54
MW19	SB19	5/24/2023		2	35	25-35	10		0-25		34.70
MW21	SB21	5/24/2023		2	35	25-35	10		0-25		34.86
MW22	SB22	5/25/2023		2	35	25-35	10		0-25		33.77

- Notes:**
- 1. PVC = Polyvinyl chloride
 - 2. bgs = Below grade surface
 - 3. NAVD88 = North American Vertical Datum of 1988
 - 4. Top of riser elevations are based on a survey performed by Langan on June 2, 2023

Table 3
Remedial Investigation Report
Groundwater Elevation Data

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Well ID	Well Elevation (NAVD88)	Top of Casing (NAVD88)	Depth to Water (feet bTOC)	Groundwater Elevation (NAVD88)	PID Reading (ppm)
MW14	36.84	36.59	29.60	6.99	1.5
MW16	36.38	36.11	29.20	6.91	0.8
MW17	36.80	36.54	29.55	6.99	0.0
MW19	34.97	34.70	28.05	6.65	1.1
MW21	35.19	34.86	28.12	6.74	0.5
MW22	34.06	33.77	27.05	6.72	5.6

Notes:

- 1. PID = photoionization detector
- 2. ppm = parts per million
- 3. Well elevations are based on a survey performed by Langan on June 2, 2023.
- 4. All elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).
- 5. Well elevations and depth to water readings were measured to a marked location at the top of each well casing.
- 6. Depth to water readings are measured in feet below top of the well casing (feet bTOC).
- 7. PID readings were measured beneath each well cap prior to groundwater sampling.
- 8. Depth to groundwater measurements were collected during a synoptic gauging event on June 1 and 2, 2023.

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted-Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB14	SB14	SB14	SB15	SB15	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18
					Sample Name	SB14_0-2	SB14_10-12	SB14_16-18	SB15_0-2	SB15_4-6	SB15_8-10	SB16_0-2	SB16_7-9	SB16_12-14	SB17_0-2	SB17_4-6	SB17_13-15	SB18_0-2	SB18_13-15	DUP01_052223
					Sample Date	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/23/2023	05/23/2023	05/23/2023	05/22/2023	05/22/2023	05/22/2023
					Sample Depth	0-2	10-12	16-18	0-2	4-6	8-10	0-2	7-9	12-14	0-2	4-6	13-15	0-2	13-15	13-15
					Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1,1-Trichloroethane	71-55-6	0.68	100	100	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1,2-Trichloroethane	79-00-5	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1-Dichloroethane	75-34-3	0.27	26	19	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,1-Dichloroethene	75-35-4	0.33	100	100	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2,3-Trichloropropane	96-18-4	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2,4-Trimethylbenzene	95-63-6	3.6	52	47	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2-Dibromo-3-Chloropropane	96-12-8	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2-Dichloroethane	107-06-2	0.02	3.1	2.3	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,2-Dichloropropane	78-87-5	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	8.4	52	47	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,3-Dichlorobenzene	541-73-1	2.4	49	17	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,4-Dichlorobenzene	106-46-7	1.8	13	9.8	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.1	13	9.8	mg/kg	<0.1 U	<0.092 U	<0.099 U	<0.1 U	<0.095 U	<0.1 U	<0.085 U	<0.15 U	<0.099 U	<0.11 U	<0.092 U	<0.1 U	<0.087 U	<0.099 U	<0.084 U
2-Hexanone (MBK)	591-78-6	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Acetone	67-64-1	0.05	100	100	mg/kg	0.042 J	0.053 J	0.0082 U	0.0081 U	0.0085 U	0.014 J	0.056 J	0.11 J	0.075 J	0.05 J	0.011 J	0.063 J	0.037 J	0.024 J	0.063 J
Acrolein	107-02-8	NS	NS	NS	mg/kg	<0.01 U	<0.0092 U	<0.0099 U	<0.01 U	<0.0095 U	<0.01 U	<0.0085 U	<0.015 U	<0.0099 U	<0.011 U	<0.0092 U	<0.01 U	<0.0087 U	<0.0099 U	<0.0084 U
Acrylonitrile	107-13-1	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Benzene	71-43-2	0.06	4.8	2.9	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Bromochloromethane	74-97-5	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Bromodichloromethane	75-27-4	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Bromoform	75-25-2	NS	NS	NS	mg/kg	<0.005 UJ	<0.0046 UJ	<0.0049 UJ	<0.005 UJ	<0.0048 UJ	<0.0052 UJ	<0.0042 UJ	<0.0074 UJ	<0.005 UJ	<0.0056 UJ	<0.0046 UJ	<0.0052 UJ	<0.0043 UJ	<0.005 UJ	<0.0042 UJ
Bromomethane	74-83-9	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Carbon Disulfide	75-15-0	NS	NS	NS	mg/kg	<0.005 U	<0.0046 U	<0.0049 U	<0.005 U	<0.0048 U	<0.0052 U	<0.0042 U	<0.0074 U	<0.005 U	<0.0056 U	<0.0046 U	<0.0052 U	<0.0043 U	<0.005 U	<0.0042 U
Carbon Tetrachloride	56-23-5	0.76	2.4	1.4	mg/kg	<0.00														

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

**Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301**

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted-Use Residential SCOs	NYSDEC Part 375 Restricted-Use Residential SCOs	Location	SB14	SB14	SB14	SB15	SB15	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18
					Sample Name	SB14_0-2	SB14_10-12	SB14_16-18	SB15_0-2	SB15_4-6	SB15_8-10	SB16_0-2	SB16_7-9	SB16_12-14	SB17_0-2	SB17_4-6	SB17_13-15	SB18_0-2	SB18_13-15	DUP01_052223
					Sample Date	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/23/2023	05/23/2023	05/23/2023	05/22/2023	05/22/2023	05/22/2023	
					Sample Depth	0-2	10-12	16-18	0-2	4-6	8-10	0-2	7-9	12-14	0-2	4-6	13-15	0-2	13-15	13-15
					Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Semi-Volatile Organic Compounds																				
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
1,2-Diphenylhydrazine	122-66-7	NS	NS	NS	mg/kg	0.0498 JD	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
1,3-Dichlorobenzene	541-73-1	2.4	49	17	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
1,4-Dichlorobenzene	106-46-7	1.8	13	9.8	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.1	13	9.8	mg/kg	<0.0196 U	<0.0198 U	<0.0194 U	<0.0198 U	<0.0194 U	<0.0183 U	<0.0196 U	<0.0194 U	<0.0185 U	<0.0198 U	<0.0198 U	<0.0189 U	<0.0198 U	<0.0198 U	<0.0198 U
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
2,4,5-Trichlorophenol	95-95-4	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2,4,6-Trichlorophenol	88-06-2	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2,4-Dichlorophenol	120-83-2	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2,4-Dimethylphenol	105-67-9	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2,4-Dinitrophenol	51-28-5	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
2,4-Dinitrotoluene	121-14-2	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2,6-Dinitrotoluene	606-20-2	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2-Chloronaphthalene	91-58-7	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2-Chlorophenol	95-57-8	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2-Methylnaphthalene	91-57-6	NS	NS	NS	mg/kg	0.188 D	0.317 D	<0.0848 U	0.259 D	1.88 D	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	0.193 D	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2-Methylphenol (o-Cresol)	95-48-7	0.33	100	100	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
2-Nitroaniline	88-74-4	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
2-Nitrophenol	88-75-5	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
3 & 4 Methylphenol (m&p Cresol)	65794-96-9	0.33	100	34	mg/kg	<0.0891 U	0.0436 JD	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
3,3'-Dichlorobenzidine	91-94-1	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
3-Nitroaniline	99-09-2	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
4,6-Dinitro-2-Methylphenol	534-52-1	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
4-Bromophenyl Phenyl Ether	101-55-3	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
4-Chloro-3-Methylphenol	59-50-7	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
4-Chloroaniline	106-47-8	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
4-Chlorophenyl Phenyl Ether	7005-72-3	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
4-Nitroaniline	100-01-6	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
4-Nitrophenol	100-02-7	NS	NS	NS	mg/kg	<0.178 U	<0.173 U	<0.169 U	<0.187 U	<0.89 U	<0.172 U	<0.175 U	<0.178 U	<0.168 U	<0.177 U	<0.168 U	<0.168 U	<0.17 U	<0.169 U	<0.17 U
Acenaphthene	83-32-9	20	100	100	mg/kg	0.605 D	0.607 D	<0.0848 U	0.68 D	2.19 D	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	0.33 D	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Acenaphthylene	208-96-8	100	100	100	mg/kg	0.424 D	0.445 D	<0.0848 U	0.618 D	0.908 D	<0.086 U	0.0455 JD	0.0597 JD	<0.0842 U	0.106 D	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Acetophenone	98-86-2	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Aniline (Phenylamine, Aminobenzene)	62-53-3	NS	NS	NS	mg/kg	<0.357 U	<0.347 U	<0.34 U	<0.376 U	<0.34 U	<0.356 U	<0.344 U	<0.337 U	<0.354 U	<0.337 U	<0.34 U	<0.34 U	<0.34 U	<0.34 U	<0.341 U
Anthracene	120-12-7	100	100	100	mg/kg	1.59 D	1.63 D	<0.0848 U	1.86 D	4.58 D	<0.086 U	0.0757 JD	0.101 D	<0.0842 U	0.627 D	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Atrazine	1912-24-9	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Benzaldehyde	100-52-7	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848 U	<0.0851 U
Benztidine	92-87-5	NS	NS	NS	mg/kg	<0.357 U	<0.347 U	<0.34 U	<0.376 U	<0.34 U	<0.344 U	<0.351 U	<0.356 U	<0.337 U	<0.354 U	<0.337 U	<0.34 U	<0.34 U	<0.34 U	<0.341 U
Benzo(a)anthracene	56-55-3	1	1	1	mg/kg	6.02 D	5.89 D	<0.0848 U	8.46 D	9.09 D	0.0467 JD	0.351 D	0.457 D	<0.0842 U	1.5 D	0.07 JD	<0.0841 U	0.0746 JD	<0.0848 U	<0.0851 U
Benzo(a)pyrene	50-32-8	1	1	1	mg/kg	6 D	5.3 D	<0.0848 U	7.9 D	8.39 D	0.0454 JD	0.368 D	0.417 D	<0.0842 U	1.43 D	0.072 JD	<0.0841 U	0.0713 JD	<0.0848 U	<0.0851 U
Benzo(b)fluoranthene	205-99-2	1	1	1	mg/kg	8.11 D	5.98 D	<0.0848 U	10.5 D	6.86 D	<0.086 U	0.356 D	0.379 D	<0.0842 U	1.25 D	0.0539 JD	<0.0841 U	0.0774 JD	<0.0848 U	<0.0851 U
Benzo(g,h,i)Perylene	191-24-2	100	100	100	mg/kg	2.66 D	1.76 D	<0.0848 U	2.7 D	3.81 D	<0.086 U	0.195 D	0.226 D	<0.0842 U	0.765 D	<0.0842 U	<0.0841 U	0.0434 JD	<0.0848 U	<0.0851 U
Benzo(k)fluoranthene	207-08-9	0.8	3.9	1	mg/kg	2.58 D	2.4 D	<0.0848 U	3.4 D	6.23 D	<0.086 U	0.296 D	0.325 D	<0.0842 U	1.24 D	0.0572 JD	<0.0841 U	0.0631 JD	<0.0848 U	<0.0851 U
Benzoic Acid	65-85-0	NS	NS	NS	mg/kg	<0.0891 U	<0.0867 U	<0.0848 U	<0.0938 U	<0.446 U	<0.086 U	<0.0877 U	<0.0889 U	<0.0842 U	<0.0884 U	<0.0842 U	<0.0841 U	<0.0849 U	<0.0848	

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted-Use Residential SCOs	NYSDEC Part 375 Restricted-Use Residential SCOs	Location	SB14	SB14	SB14	SB15	SB15	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18
					Sample Name	SB14_0-2	SB14_10-12	SB14_16-18	SB15_0-2	SB15_4-6	SB15_8-10	SB16_0-2	SB16_7-9	SB16_12-14	SB17_0-2	SB17_4-6	SB17_13-15	SB18_0-2	SB18_13-15	DUP01_052223
					Sample Date	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/23/2023	05/23/2023	05/23/2023	05/22/2023	05/22/2023	05/22/2023
					Sample Depth	0-2	10-12	16-18	0-2	4-6	8-10	0-2	7-9	12-14	0-2	4-6	13-15	0-2	13-15	13-15
					Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides																				
4,4'-DDD	72-54-8	0.0033	13	2.6	mg/kg	0.396 D	0.0253 D	<0.00167 U	0.0605 D	0.0144 D	<0.0017 U	0.0181 D	0.00834 D	<0.00168 U	0.0419 J	0.02 D	<0.00166 U	<0.00168 U	<0.00168 U	<0.00167 U
4,4'-DDE	72-55-9	0.0033	8.9	1.8	mg/kg	0.335 D	0.0439 D	<0.00167 U	0.022 D	0.00958 D	<0.0017 U	0.0619 D	0.0644 D	<0.00168 U	0.0544 J	0.0148 D	<0.00166 U	<0.00168 U	<0.00168 U	<0.00167 U
4,4'-DDT	50-29-3	0.0033	7.9	1.7	mg/kg	2.41 D	0.481 D	<0.00167 U	0.0336 D	0.0576 D	<0.0017 U	0.143 D	0.192 D	0.00411 D	0.318 J	0.0522 D	<0.00166 U	<0.00168 U	<0.00168 U	<0.00167 U
Aldrin	309-00-2	0.005	0.097	0.019	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Alpha BHC (Alpha Hexachlorocyclohexane)	319-84-6	0.02	0.48	0.097	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Alpha Chlordane	5103-71-9	0.094	4.2	0.91	mg/kg	0.00369 J	0.00207 D	<0.00167 U	0.00277 J	0.00205 D	<0.0017 U	0.00286 D	0.0047 D	<0.00168 U	0.00563 J	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Alpha Endosulfan	959-98-8	2.4	24	4.8	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	0.036	0.36	0.072	mg/kg	0.00487 D	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Beta Endosulfan	33213-65-9	2.4	24	4.8	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Delta Bhc (Delta Hexachlorocyclohexane)	319-86-8	0.04	100	100	mg/kg	0.00864 D	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Dieldrin	60-57-1	0.005	0.2	0.039	mg/kg	0.00707 D	0.0134 D	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	0.00772 J	<0.00168 U	0.00758 J	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Endosulfan Sulfate	1031-07-8	2.4	24	4.8	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Endrin	72-20-8	0.014	11	2.2	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Endrin Aldehyde	7421-93-4	NS	NS	NS	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Endrin Ketone	53494-70-5	NS	NS	NS	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Gamma Bhc (Lindane)	58-89-9	0.1	1.3	0.28	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Gamma-Chlordane	5566-34-7	NS	NS	NS	mg/kg	0.0126 J	0.00307 J	<0.00167 U	0.007 J	<0.0018 U	<0.0017 U	0.00433 D	0.0124 D	<0.00168 U	0.00941 J	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Heptachlor	76-44-8	0.042	2.1	0.42	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Heptachlor Epoxide	1024-57-3	NS	NS	NS	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Methoxychlor	72-43-5	NS	NS	NS	mg/kg	<0.00176 U	<0.00171 U	<0.00167 U	<0.00185 U	<0.0018 U	<0.0017 U	<0.00172 U	<0.00174 U	<0.00168 U	<0.00174 UJ	<0.00169 U	<0.00166 U	<0.00168 U	<0.00167 U	
Toxaphene	8001-35-2	NS	NS	NS	mg/kg	<0.176 U	<0.171 U	<0.167 U	<0.185 U	<0.18 U	<0.17 U	<0.172 U	<0.174 U	<0.168 U	<0.174 UJ	<0.169 U	<0.166 U	<0.168 U	<0.167 U	
Herbicides																				
2,4,5-T (Trichlorophenoxyacetic Acid)	93-76-5	NS	NS	NS	mg/kg	<0.0214 U	<0.0208 U	<0.0203 U	<0.0222 U	<0.0219 U	<0.0201 U	<0.0208 U	<0.0212 UJ	<0.0207 U	<0.0208 U	<0.0205 U	<0.02 U	<0.0208 UJ	<0.0205 U	<0.0203 U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	NS	NS	NS	mg/kg	<0.0214 U	<0.0208 U	<0.0203 U	<0.0222 U	<0.0219 U	<0.0201 U	<0.0208 U	<0.0212 UJ	<0.0207 U	<0.0208 U	<0.0205 U	<0.02 U	<0.0208 UJ	<0.0205 U	<0.0203 U
Silvex (2,4,5-Tp)	93-72-1	3.8	100	58	mg/kg	<0.0214 U	<0.0208 U	<0.0203 U	<0.0222 U	<0.0219 U	<0.0201 U	<0.0208 U	<0.0212 UJ	<0.0207 U	<0.0208 U	<0.0205 U	<0.02 U	<0.0208 UJ	<0.0205 U	<0.0203 U
Polychlorinated Biphenyl																				
PCB-1016 (Aroclor 1016)	12674-11-2	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1221 (Aroclor 1221)	11104-28-2	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1232 (Aroclor 1232)	11141-16-5	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1242 (Aroclor 1242)	53469-21-9	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1248 (Aroclor 1248)	12672-29-6	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1254 (Aroclor 1254)	11097-69-1	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
PCB-1260 (Aroclor 1260)	11096-82-5	NS	NS	NS	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
Total PCBs	1336-36-3	0.1	1	1	mg/kg	<0.0178 U	<0.0173 U	<0.0168 U	<0.0187 U	<0.0182 U	<0.0172 U	<0.0174 U	<0.0176 U	<0.0169 U	<0.0176 U	<0.017 U	<0.0168 U	<0.017 U	<0.017 U	<0.0168 U
Metals																				
Aluminum	7429-90-5	NS	NS	NS	mg/kg	8,720	5,970	3,220	11,100	8,840	4,050	5,500	5,790	2,500	6,280	5,670	4,410	7,190	4,370	5,280
Antimony	7440-36-0	NS	NS																	

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB14	SB14	SB14	SB15	SB15	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18																		
					Sample Name	SB14_0-2	SB14_10-12	SB14_16-18	SB15_0-2	SB15_4-6	SB15_8-10	SB16_0-2	SB16_7-9	SB16_12-14	SB17_0-2	SB17_4-6	SB17_13-15	SB18_0-2	SB18_13-15	DUP01_052223																		
					Sample Date	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/23/2023	05/23/2023	05/23/2023	05/22/2023	05/22/2023	05/22/2023																		
					Sample Depth	0-2	10-12	16-18	0-2	4-6	8-10	0-2	7-9	12-14	0-2	4-6	13-15	0-2	13-15	13-15																		
																					Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result			
Per- and Polyfluoroalkyl Substances																																						
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	763051-92-9	NS	NS	NS	mg/kg	<0.0008 UJ	<0.000781 UJ	<0.000761 UJ	<0.000845 UJ	<0.00083 UJ	<0.00077 UJ	<0.000789 UJ	<0.000803 UJ	<0.000778 UJ	<0.000802 UJ	<0.000768 UJ	<0.00077 UJ	<0.000779 UJ	<0.000785 UJ	<0.000779 UJ																		
1h,1h,2h,2h-Perfluorohexanesulfonic Acid (4:2)	757124-72-4	NS	NS	NS	mg/kg	<0.000794 U	<0.000774 U	<0.000755 U	<0.000838 U	<0.000824 U	<0.000763 U	<0.000783 U	<0.000797 U	<0.000772 U	<0.000796 U	<0.000762 U	<0.000764 U	<0.000773 U	<0.000779 U	<0.000773 U																		
3:3 FTCA	356-02-5	NS	NS	NS	mg/kg	<0.00106 U	<0.00103 U	<0.00101 U	<0.00112 U	<0.0011 U	<0.00102 U	<0.00104 U	<0.00106 U	<0.00103 U	<0.00106 U	<0.00102 U	<0.00102 U	<0.00103 U	<0.00104 U	<0.00103 U																		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NS	NS	NS	mg/kg	<0.0008 U	<0.000781 U	<0.000761 U	<0.000845 U	<0.00083 U	<0.00077 U	<0.000789 U	<0.000803 U	<0.000778 U	<0.000802 U	<0.000768 U	<0.00077 U	<0.000779 U	<0.000785 U	<0.000779 U																		
5:3 FTCA	914637-49-3	NS	NS	NS	mg/kg	<0.00529 U	<0.00516 U	<0.00503 U	<0.00559 U	<0.00549 U	<0.00509 U	<0.00522 U	<0.00531 U	<0.00515 U	<0.00531 U	<0.00508 U	<0.00509 U	<0.00515 U	<0.00519 U	<0.00515 U																		
7:3 FTCA	812-70-4	NS	NS	NS	mg/kg	<0.00529 UJ	<0.00516 UJ	<0.00503 UJ	<0.00559 UJ	<0.00549 UJ	<0.00509 UJ	<0.00522 UJ	<0.00531 UJ	<0.00515 UJ	<0.00531 UJ	<0.00508 UJ	<0.00509 UJ	<0.00515 UJ	<0.00519 UJ	<0.00515 UJ																		
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	756426-58-1	NS	NS	NS	mg/kg	<0.000792 UJ	<0.000772 UJ	<0.000753 UJ	<0.000836 UJ	<0.000822 UJ	<0.000761 UJ	<0.000781 U	<0.000795 U	<0.00077 U	<0.000794 U	<0.00076 U	<0.000762 U	<0.000771 U	<0.000777 U	<0.000771 U																		
N-ethyl perfluorooctane- sulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NS	NS	NS	mg/kg	<0.000212 UJ	<0.000206 UJ	<0.000201 U	<0.000223 UJ	<0.00022 UJ	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 UJ	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
N-ethyl perfluorooctanesulfonamidoethanol	1691-99-2	NS	NS	NS	mg/kg	<0.00212 U	<0.00206 U	<0.00201 U	<0.00223 U	<0.0022 U	<0.00204 U	<0.00209 U	<0.00213 U	<0.00206 U	<0.00212 U	<0.00203 U	<0.00204 U	<0.00206 U	<0.00208 U	<0.00206 U																		
N-ethylperfluorooctane sulfonamide	4151-50-2	NS	NS	NS	mg/kg	<0.000212 UJ	<0.000206 UJ	<0.000201 UJ	<0.000223 UJ	<0.00022 UJ	<0.000204 UJ	<0.000209 UJ	<0.000213 UJ	<0.000206 UJ	<0.000212 UJ	<0.000203 UJ	<0.000204 UJ	<0.000206 UJ	<0.000208 UJ	<0.000206 UJ																		
N-methyl perfluorooctane- sulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 UJ	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 UJ	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
N-methyl perfluorooctanesulfonamidoethanol	24448-09-7	NS	NS	NS	mg/kg	<0.00212 U	<0.00206 U	<0.00201 U	<0.00223 U	<0.0022 U	<0.00204 U	<0.00209 U	<0.00213 U	<0.00206 U	<0.00212 U	<0.00203 U	<0.00204 U	<0.00206 U	<0.00208 U	<0.00206 U																		
N-methylperfluorooctane sulfonamide	31506-32-8	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Nonafluoro-3,6-dioxaheptanoic acid	151772-58-6	NS	NS	NS	mg/kg	<0.000423 U	<0.000413 U	<0.000403 U	<0.000447 U	<0.000439 U	<0.000418 U	<0.000439 U	<0.000425 U	<0.000412 U	<0.000424 U	<0.000406 U	<0.000407 U	<0.000412 U	<0.000415 U	<0.000412 U																		
Perfluoro(2-ethoxyethane)sulfonic acid	113507-82-7	NS	NS	NS	mg/kg	<0.000377 U	<0.000368 U	<0.000358 U	<0.000398 U	<0.000391 U	<0.000362 U	<0.000372 U	<0.000378 U	<0.000367 U	<0.000378 U	<0.000362 U	<0.000363 U	<0.000367 U	<0.00037 U	<0.000367 U																		
Perfluoro-3-methoxypropanoic acid	377-73-1	NS	NS	NS	mg/kg	<0.000423 U	<0.000413 U	<0.000403 U	<0.000447 U	<0.000439 U	<0.000407 U	<0.000418 U	<0.000425 U	<0.000412 U	<0.000424 U	<0.000406 U	<0.000407 U	<0.000412 U	<0.000415 U	<0.000412 U																		
Perfluoro-4-methoxybutanoic acid	863090-89-5	NS	NS	NS	mg/kg	<0.000423 U	<0.000413 U	<0.000403 U	<0.000447 U	<0.000439 U	<0.000407 U	<0.000418 U	<0.000425 U	<0.000412 U	<0.000424 U	<0.000406 U	<0.000407 U	<0.000412 U	<0.000415 U	<0.000412 U																		
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NS	NS	NS	mg/kg	<0.000187 U	<0.000183 U	<0.000178 U	<0.000198 U	<0.000194 U	<0.00018 U	<0.000185 U	<0.000188 U	<0.000182 U	<0.000188 U	<0.00018 U	<0.00018 U	<0.000182 U	<0.000184 U	<0.000182 U																		
Perfluorobutanoic acid (PFBA)	375-22-4	NS	NS	NS	mg/kg	<0.000847 U	<0.000826 U	<0.000805 U	<0.000894 U	<0.000879 U	<0.000814 U	<0.000835 U	<0.00085 U	<0.000824 U	<0.000849 U	<0.000813 U	<0.000815 U	<0.000824 U	<0.000831 U	<0.000825 U																		
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NS	NS	NS	mg/kg	<0.000204 UJ	<0.000199 UJ	<0.000194 UJ	<0.000216 UJ	<0.000212 UJ	<0.000196 UJ	<0.000202 U	<0.000205 U	<0.000199 U	<0.000205 U	<0.000196 U	<0.000197 U	<0.000199 U	<0.0002 U	<0.000199 U																		
Perfluorodecanoic Acid (PFDA)	335-76-2	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluorododecanesulfonic Acid (PFDOS)	79780-39-5	NS	NS	NS	mg/kg	<0.000205 U	<0.0002 U	<0.000195 U	<0.000217 U	<0.000213 U	<0.000197 U	<0.000203 U	<0.000206 U	<0.0002 U	<0.000206 U	<0.000197 U	<0.000198 U	<0.0002 U	<0.000201 U	<0.0002 U																		
Perfluorododecanoic Acid (PFDoA)	307-55-1	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluoroheptanoic acid (PFHpA)	375-85-9	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NS	NS	NS	mg/kg	<0.000194 U	<0.000189 U	<0.000184 U	<0.000204 U	<0.000201 U	<0.000186 U	<0.000191 U	<0.000194 U	<0.000188 U	<0.000194 U	<0.000186 U	<0.000186 U	<0.000189 U	<0.00019 U	<0.000189 U																		
Perfluorohexanoic Acid (PFHxA)	307-24-4	NS	NS	NS	mg/kg	0.0000644 J	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	0.0000567 J	<0.000206 U	0.0000929 J	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluorononanesulfonic Acid (PFNS)	68259-12-1	NS	NS	NS	mg/kg	<0.000203 U	<0.000198 U	<0.000193 U	<0.000214 U	<0.000211 U	<0.000195 U	<0.0002 U	<0.000204 U	<0.000198 U	<0.000204 U	<0.000195 U	<0.000196 U	<0.000198 U	<0.000199 U	<0.000198 U																		
Perfluorononanoic Acid (PFNA)	375-95-1	NS	NS	NS	mg/kg	<0.000212 UJ	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluorooctanesulfonamide (FOSA)	754-91-6	NS	NS	NS	mg/kg	<0.000212 U	<0.000206 U	<0.000201 U	<0.000223 U	<0.00022 U	<0.000204 U	<0.000209 U	<0.000213 U	<0.000206 U	<0.000212 U	<0.000203 U	<0.000204 U	<0.000206 U	<0.000208 U	<0.000206 U																		
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.00088	0.044	0.0088	mg/kg	0.000245 J	<0.000192 U	<0.000187 U																														

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB19	SB19	SB19	SB19	SB20	SB20	SB20	SB21	SB21	SB21	SB22	SB22	SB22	SB22
					Sample Name	SB19_0-2	SB19_10-12	DUP02_052523	SB19_13-15	SB20_0-2	SB20_3-5	SB20_13-15	SB21_0-2	SB21_4-6	SB21_13-15	SB22_0-2	SB22_13-15	SB22_30-32	SB22_34-36
					Sample Date	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/24/2023	05/25/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023
					Sample Depth	0-2	10-12	10-12	13-15	0-2	3-5	13-15	0-2	4-6	13-15	0-2	13-15	30-32	34-36
Unit						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds																			
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1,1-Trichloroethane	71-55-6	0.68	100	100	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1,2-Trichloroethane	79-00-5	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1-Dichloroethane	75-34-3	0.27	26	19	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,1-Dichloroethene	75-35-4	0.33	100	100	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2,3-Trichloropropane	96-18-4	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2,4-Trimethylbenzene	95-63-6	3.6	52	47	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2-Dibromo-3-Chloropropane	96-12-8	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2-Dichloroethane	107-06-2	0.02	3.1	2.3	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,2-Dichloropropane	78-87-5	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	8.4	52	47	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,3-Dichlorobenzene	541-73-1	2.4	49	17	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,4-Dichlorobenzene	106-46-7	1.8	13	9.8	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.1	13	9.8	mg/kg	<0.11 U	<0.22 U	<0.11 U	<0.081 U	<0.11 U	<0.099 U	<0.097 U	<0.11 U	<0.092 U	<0.11 U	<0.1 U	<0.11 U	<0.11 U	<0.1 U
2-Hexanone (MBK)	591-78-6	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Acetone	67-64-1	0.05	100	100	mg/kg	0.044	0.1 J	0.03 J	0.0046 U	0.022 J	0.014 J	0.01 J	0.042	0.0049 U	0.01 U	0.1	0.011 J	0.079 J	0.0068 U
Acrolein	107-02-8	NS	NS	NS	mg/kg	<0.011 U	<0.022 U	<0.011 U	<0.0081 U	<0.011 U	<0.0099 U	<0.0097 U	<0.011 U	<0.0092 U	<0.011 U	<0.01 U	<0.011 U	<0.011 U	<0.01 U
Acrylonitrile	107-13-1	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Benzene	71-43-2	0.06	4.8	2.9	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Bromochloromethane	74-97-5	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Bromodichloromethane	75-27-4	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Bromoform	75-25-2	NS	NS	NS	mg/kg	<0.0054 UJ	<0.011 U	<0.0053 UJ	<0.0041 UJ	<0.0054 UJ	<0.0049 UJ	<0.0049 UJ	<0.0055 UJ	<0.0046 UJ	<0.0056 UJ	<0.0052 UJ	<0.0055 UJ	<0.0054 UJ	<0.0052 UJ
Bromomethane	74-83-9	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Carbon Disulfide	75-15-0	NS	NS	NS	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	0.017 J	<0.0052 U
Carbon Tetrachloride	56-23-5	0.76	2.4	1.4	mg/kg	<0.0054 U	<0.011 U	<0.0053 U	<0.0041 U	<0.0054 U	<0.0049 U	<0.0049 U	<0.0055 U	<0.0046 U	<0.0056 U	<0.0052 U	<0.0055 U	<0.0054 U	<0.0052 U
Chlorob>																			

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB19	SB19	SB19	SB19	SB20	SB20	SB20	SB21	SB21	SB21	SB22	SB22	SB22	SB22
					Sample Name	SB19_0-2	SB19_10-12	DUP02_052523	SB19_13-15	SB20_0-2	SB20_3-5	SB20_13-15	SB21_0-2	SB21_4-6	SB21_13-15	SB22_0-2	SB22_13-15	SB22_30-32	SB22_34-36
					Sample Date	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023
					Sample Depth	0-2	10-12	10-12	13-15	0-2	3-5	13-15	0-2	4-6	13-15	0-2	13-15	30-32	34-36
						Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Semi-Volatile Organic Compounds																			
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
1,2-Diphenylhydrazine	122-66-7	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
1,3-Dichlorobenzene	541-73-1	2.4	49	17	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
1,4-Dichlorobenzene	106-46-7	1.8	13	9.8	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.1	13	9.8	mg/kg	<0.0198 U	<0.0198 U	<0.019 U	<0.019 U	<0.0187 U	<0.0192 U	<0.0192 U	<0.0194 U	<0.0185 U	<0.0183 U	<0.0198 U	<0.0187 U	<0.0194 U	<0.0192 U
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
2,4,5-Trichlorophenol	95-95-4	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2,4,6-Trichlorophenol	88-06-2	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2,4-Dichlorophenol	120-83-2	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2,4-Dimethylphenol	105-67-9	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2,4-Dinitrophenol	51-28-5	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
2,4-Dinitrotoluene	121-14-2	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2,6-Dinitrotoluene	606-20-2	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2-Chloronaphthalene	91-58-7	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2-Chlorophenol	95-57-8	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2-Methylnaphthalene	91-57-6	NS	NS	NS	mg/kg	<0.0891 U	1.58 D	1.73 D	0.193 D	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2-Methylphenol (o-Cresol)	95-48-7	0.33	100	100	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
2-Nitroaniline	88-74-4	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
2-Nitrophenol	88-75-5	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
3 & 4 Methylphenol (m&p Cresol)	65794-96-9	0.33	100	34	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
3,3'-Dichlorobenzidine	91-94-1	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
3-Nitroaniline	99-09-2	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
4,6-Dinitro-2-Methylphenol	534-52-1	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	<0.185 U	<0.176 U	<0.172 U	<0.205 U	<0.19 U
4-Bromophenyl Phenyl Ether	101-55-3	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
4-Chloro-3-Methylphenol	59-50-7	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
4-Chloroaniline	106-47-8	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
4-Chlorophenyl Phenyl Ether	7005-72-3	NS	NS	NS	mg/kg	<0.0891 U	<0.47 U	<0.0946 U	<0.0868 U	<0.0868 U	<0.0853 U	<0.084 U	<0.0881 U	<0.0858 U	<0.0928 U	<0.0883 U	<0.0861 U	<0.103 U	<0.0949 U
4-Nitroaniline	100-01-6	NS	NS	NS	mg/kg	<0.178 U	<0.939 U	<0.189 U	<0.173 U	<0.173 U	<0.17 U	<0.168 U	<0.176 U	<0.171 U	&				

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB19	SB19	SB19	SB19	SB20	SB20	SB20	SB21	SB21	SB21	SB22	SB22	SB22	SB22
					Sample Name	SB19_0-2	SB19_10-12	SB19	SB19_13-15	SB20_0-2	SB20_3-5	SB20_13-15	SB21_0-2	SB21_4-6	SB21_13-15	SB22_0-2	SB22_13-15	SB22_30-32	SB22_34-36
					Sample Date	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023
					Sample Depth	0-2	10-12	10-12	13-15	0-2	3-5	13-15	0-2	4-6	13-15	0-2	13-15	30-32	34-36
Unit						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides																			
4,4'-DDD	72-54-8	0.0033	13	2.6	mg/kg	0.00813 D	0.0365 J	0.00573 J	<0.0017 U	0.00683 D	0.00937 D	<0.0017 U	0.00185 D	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
4,4'-DDE	72-55-9	0.0033	8.9	1.8	mg/kg	0.0231 D	0.0167 J	0.00683 J	<0.0017 U	0.00659 D	0.00573 J	<0.0017 U	0.00837 D	<0.00169 U	<0.00187 U	0.00248 D	<0.00166 U	<0.00205 U	<0.00184 U
4,4'-DDT	50-29-3	0.0033	7.9	1.7	mg/kg	0.031 D	0.107 J	0.0227 J	<0.0017 U	0.00924 J	0.0151 D	<0.0017 U	0.0185 J	<0.00169 U	<0.00187 U	0.00368 J	<0.00166 U	<0.00205 U	<0.00184 U
Aldrin	309-00-2	0.005	0.097	0.019	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Alpha BHC (Alpha Hexachlorocyclohexane)	319-84-6	0.02	0.48	0.097	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Alpha Chlordane	5103-71-9	0.094	4.2	0.91	mg/kg	0.00411 D	0.00244 J	0.00294 D	<0.0017 U	0.00315 D	0.00457 D	<0.0017 U	0.00259 D	<0.00169 U	<0.00187 U	0.00236 D	<0.00166 U	<0.00205 U	<0.00184 U
Alpha Endosulfan	959-98-8	2.4	24	4.8	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	0.036	0.36	0.072	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Beta Endosulfan	33213-65-9	2.4	24	4.8	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Delta Bhc (Delta Hexachlorocyclohexane)	319-86-8	0.04	100	100	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Dieldrin	60-57-1	0.005	0.2	0.039	mg/kg	0.00408 D	0.00246 J	0.00303 J	<0.0017 U	0.00302 J	0.00344 D	<0.0017 U	0.00314 D	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Endosulfan Sulfate	1031-07-8	2.4	24	4.8	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Endrin	72-20-8	0.014	11	2.2	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Endrin Aldehyde	7421-93-4	NS	NS	NS	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Endrin Ketone	53494-70-5	NS	NS	NS	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Gamma Bhc (Lindane)	58-89-9	0.1	1.3	0.28	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Gamma-Chlordane	5566-34-7	NS	NS	NS	mg/kg	0.00483 D	0.00204 J	0.00322 D	<0.0017 U	0.00241 J	0.00362 D	<0.0017 U	0.0027 D	<0.00169 U	<0.00187 U	0.00265 J	<0.00166 U	<0.00205 U	<0.00184 U
Heptachlor	76-44-8	0.042	2.1	0.42	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Heptachlor Epoxide	1024-57-3	NS	NS	NS	mg/kg	<0.00177 U	<0.00182 U	<0.00182 U	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Methoxychlor	72-43-5	NS	NS	NS	mg/kg	<0.00177 U	<0.00182 U	0.0103 J	<0.0017 U	<0.00174 U	<0.00168 U	<0.0017 U	<0.00171 U	<0.00169 U	<0.00187 U	<0.00174 U	<0.00166 U	<0.00205 U	<0.00184 U
Toxaphene	8001-35-2	NS	NS	NS	mg/kg	<0.177 U	<0.182 U	<0.182 U	<0.17 U	<0.174 U	<0.168 U	<0.17 U	<0.171 U	<0.169 U	<0.187 U	<0.174 U	<0.166 U	<0.205 U	<0.184 U
Herbicides																			
2,4,5-T (Trichlorophenoxyacetic Acid)	93-76-5	NS	NS	NS	mg/kg	<0.0214 U	<0.0227 U	<0.0227 U	<0.0207 U	<0.021 U	<0.0205 U	<0.0206 U	<0.0208 U	<0.0206 U	<0.0226 U	<0.0212 U	<0.0206 U	<0.0243 U	<0.0226 U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	NS	NS	NS	mg/kg	<0.0214 U	<0.0227 U	<0.0227 U	<0.0207 U	<0.021 U	<0.0205 U	<0.0206 U	<0.0208 U	<0.0206 U	<0.0226 U	<0.0212 U	<0.0206 U	<0.0243 U	<0.0226 U
Silvex (2,4,5-Tp)	93-72-1	3.8	100	58	mg/kg	<0.0214 U	<0.0227 U	<0.0227 U	<0.0207 U	<0.021 U	<0.0205 U	<0.0206 U	<0.0208 U	<0.0206 U	<0.0226 U	<0.0212 U	<0.0206 U	<0.0243 U	<0.0226 U
Polychlorinated Biphenyl																			
PCB-1016 (Aroclor 1016)	12674-11-2	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1221 (Aroclor 1221)	11104-28-2	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1232 (Aroclor 1232)	11141-16-5	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1242 (Aroclor 1242)	53469-21-9	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1248 (Aroclor 1248)	12672-29-6	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1254 (Aroclor 1254)	11097-69-1	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
PCB-1260 (Aroclor 1260)	11096-82-5	NS	NS	NS	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
Total PCBs	1336-36-3	0.1	1	1	mg/kg	<0.0179 U	<0.0184 U	<0.0184 U	<0.0172 U	<0.0175 U	<0.017 U	<0.0172 U	<0.0172 U	<0.017 U	<0.0188 U	<0.0176 U	<0.0168 U	<0.0207 U	<0.0186 U
Metals																			
Aluminum	7429-90-5	NS	NS	NS	mg/kg	9,170 J	8,870	6,370	4,110	5,880	5,950	3,460	6,700 J	5,290 J	4,560 J	5,980	2,990	2,730	3,360
Antimony	7440-36-0	NS																	

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	NYSDEC Part 375 Restricted Use Residential SCOs	Location	SB19	SB19	SB19	SB19	SB20	SB20	SB20	SB21	SB21	SB21	SB22	SB22	SB22	SB22
					Sample Name	SB19_0-2	SB19_10-12	SB19	SB19_13-15	SB20_0-2	SB20_3-5	SB20_13-15	SB21_0-2	SB21_4-6	SB21_13-15	SB22_0-2	SB22_13-15	SB22_30-32	SB22_34-36
					Sample Date	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023	05/24/2023	05/24/2023	05/24/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023	05/25/2023
					Sample Depth	0-2	10-12	10-12	13-15	0-2	3-5	13-15	0-2	4-6	13-15	0-2	13-15	30-32	34-36
						Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Per- and Polyfluoroalkyl Substances																			
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	763051-92-9	NS	NS	NS	mg/kg	<0.000803 UJ	<0.000845 UJ	<0.000845 U	<0.000793 U	<0.000788 UJ	<0.000789 UJ	<0.000772 UJ	<0.000793 UJ	<0.000767 UJ	<0.000851 UJ	<0.000789 UJ	<0.000781 UJ	<0.00094 UJ	<0.00086 UJ
1h,1h,2h,2h-Perfluorohexanesulfonic Acid (4:2)	757124-72-4	NS	NS	NS	mg/kg	<0.000796 U	<0.000839 U	<0.000839 U	<0.000787 U	<0.000782 U	<0.000783 U	<0.000766 U	<0.000787 U	<0.000761 U	<0.000844 U	<0.000783 U	<0.000775 U	<0.000933 U	<0.000853 U
3:3 FTCA	356-02-5	NS	NS	NS	mg/kg	<0.00106 U	<0.00112 U	<0.00112 U	<0.00105 U	<0.00104 U	<0.00104 U	<0.00102 U	<0.00105 U	<0.00101 U	<0.00113 U	<0.00104 U	<0.00103 U	<0.00124 U	<0.00114 U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NS	NS	NS	mg/kg	<0.000803 U	<0.000845 U	<0.000845 U	<0.000793 U	<0.000788 U	<0.000789 U	<0.000772 U	<0.000793 U	<0.000767 U	<0.000851 U	<0.000789 U	<0.000781 U	<0.00094 U	<0.00086 U
5:3 FTCA	914637-49-3	NS	NS	NS	mg/kg	<0.00531 U	<0.00559 U	<0.00559 U	<0.00524 U	<0.00521 U	<0.00522 U	<0.00511 U	<0.00524 U	<0.00507 U	<0.00563 U	<0.00522 U	<0.00517 U	<0.00622 U	<0.00569 U
7:3 FTCA	812-70-4	NS	NS	NS	mg/kg	<0.00531 UJ	<0.00559 UJ	<0.00559 UJ	<0.00524 UJ	<0.00521 UJ	<0.00522 UJ	<0.00511 UJ	<0.00524 UJ	<0.00507 UJ	<0.00563 UJ	<0.00522 UJ	<0.00517 UJ	<0.00622 UJ	<0.00569 UJ
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	756426-58-1	NS	NS	NS	mg/kg	<0.000794 U	<0.000836 U	<0.000836 U	<0.000785 U	<0.00078 U	<0.000781 U	<0.000764 U	<0.000785 U	<0.000759 U	<0.000842 U	<0.000781 U	<0.000773 U	<0.00093 U	<0.000851 U
N-ethyl perfluorooctane- sulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
N-ethyl perfluorooctanesulfonamidoethanol	1691-99-2	NS	NS	NS	mg/kg	<0.00212 U	<0.00224 U	<0.00224 U	<0.0021 U	<0.00209 U	<0.00209 U	<0.00204 U	<0.0021 U	<0.00203 U	<0.00225 U	<0.00209 U	<0.00207 U	<0.00249 U	<0.00228 U
N-ethylperfluorooctane sulfonamide	4151-50-2	NS	NS	NS	mg/kg	<0.000212 UJ	<0.000224 UJ	<0.000224 U	<0.00021 U	<0.000209 UJ	<0.000209 UJ	<0.000204 UJ	<0.00021 UJ	<0.000203 UJ	<0.000225 UJ	<0.000209 UJ	<0.000207 UJ	<0.000249 UJ	<0.000228 UJ
N-methyl perfluorooctane- sulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
N-methyl perfluorooctanesulfonamidoethanol	24448-09-7	NS	NS	NS	mg/kg	<0.00212 U	<0.00224 U	<0.00224 U	<0.0021 U	<0.00209 U	<0.00209 U	<0.00204 U	<0.0021 U	<0.00203 U	<0.00225 U	<0.00209 U	<0.00207 U	<0.00249 U	<0.00228 U
N-methylperfluorooctane sulfonamide	31506-32-8	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 UJ	<0.00021 UJ	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Nonafluoro-3,6-dioxahexanoic acid	151772-58-6	NS	NS	NS	mg/kg	<0.000425 U	<0.000447 U	<0.000447 U	<0.00042 U	<0.000417 U	<0.000418 U	<0.000409 U	<0.00042 U	<0.000406 U	<0.00045 U	<0.000417 U	<0.000413 U	<0.000498 U	<0.000455 U
Perfluoro(2-ethoxyethane)sulfonic acid	113507-82-7	NS	NS	NS	mg/kg	<0.000378 U	<0.000398 U	<0.000398 U	<0.000373 U	<0.000371 U	<0.000372 U	<0.000364 U	<0.000373 U	<0.000361 U	<0.000401 U	<0.000372 U	<0.000368 U	<0.000443 U	<0.000405 U
Perfluoro-3-methoxypropanoic acid	377-73-1	NS	NS	NS	mg/kg	<0.000425 U	<0.000447 U	<0.000447 U	<0.00042 U	<0.000417 U	<0.000418 U	<0.000409 U	<0.00042 U	<0.000406 U	<0.00045 U	<0.000417 U	<0.000413 U	<0.000498 U	<0.000455 U
Perfluoro-4-methoxybutanoic acid	863090-89-5	NS	NS	NS	mg/kg	<0.000425 U	<0.000447 U	<0.000447 U	<0.00042 U	<0.000417 U	<0.000418 U	<0.000409 U	<0.00042 U	<0.000406 U	<0.00045 U	<0.000417 U	<0.000413 U	<0.000498 U	<0.000455 U
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NS	NS	NS	mg/kg	<0.000188 U	<0.000198 U	<0.000198 U	<0.000186 U	<0.000185 U	<0.000185 U	<0.000181 U	<0.000186 U	<0.00018 U	<0.000199 U	<0.000185 U	<0.000183 U	<0.00022 U	<0.000201 U
Perfluorobutanoic acid (PFBA)	375-22-4	NS	NS	NS	mg/kg	<0.000849 U	<0.000894 U	<0.000894 U	<0.000839 U	<0.000834 U	<0.000835 U	<0.000817 U	<0.000839 U	<0.000811 U	<0.0009 U	<0.000835 U	<0.000827 U	<0.000995 U	<0.00091 U
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NS	NS	NS	mg/kg	<0.000205 U	<0.000216 U	<0.000216 U	<0.000202 U	<0.000201 U	<0.000201 U	<0.000197 U	<0.000202 U	<0.000196 U	<0.000217 U	0.000239	<0.000199 U	<0.00024 U	<0.00022 U
Perfluorodecanoic Acid (PFDA)	335-76-2	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluorododecanesulfonic Acid (PFDOS)	79780-39-5	NS	NS	NS	mg/kg	<0.000206 U	<0.000217 U	<0.000217 U	<0.000203 U	<0.000202 U	<0.000202 U	<0.000198 U	<0.000204 U	<0.000197 U	<0.000218 U	<0.000202 U	<0.000201 U	<0.000241 U	<0.000221 U
Perfluorododecanoic Acid (PFDoA)	307-55-1	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluoroheptanoic acid (PFHpA)	375-85-9	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	0.000239	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NS	NS	NS	mg/kg	<0.000194 U	<0.000205 U	<0.000205 U	<0.000192 U	<0.000191 U	<0.000191 U	<0.000187 U	<0.000192 U	<0.000186 U	<0.000206 U	<0.000191 U	<0.000189 U	<0.000228 U	<0.000208 U
Perfluorohexanoic Acid (PFHxA)	307-24-4	NS	NS	NS	mg/kg	<0.000212 U	0.0000787 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluorononanesulfonic Acid (PFNS)	68259-12-1	NS	NS	NS	mg/kg	<0.000204 U	<0.000215 U	<0.000215 U	<0.000201 U	<0.0002 U	<0.0002 U	<0.000196 U	<0.000201 U	<0.000195 U	<0.000216 U	<0.0002 U	<0.000198 U	<0.000239 U	<0.000218 U
Perfluorononanoic Acid (PFNA)	375-95-1	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluorooctanesulfonamide (FOSA)	754-91-6	NS	NS	NS	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.00088	0.044	0.0088	mg/kg	<0.000198 U	0.000267	0.000423	0.000262	0.00033	<0.000194 U	<0.00019 U	0.000277	<0.000189 U	<0.000209 U	<0.000194 U	<0.000192 U	<0.000231 U	<0.000212 U
Perfluorooctanoic Acid (PFOA)	335-67-1	0.00066	0.033	0.0066	mg/kg	<0.000212 U	<0.000224 U	<0.000224 U	<0.00021 U	<0.000209 U	<0.000209 U	<0.000204 U	<0.00021 U	<0.000203 U	<0.000225 U	<0.000209 U	<0.000207 U	<0.000249 U	<0.000228 U
Perfluoropentanesulfonic Acid	2706-91-4	NS	NS	NS	mg/kg	<0.0002 U	<0.00021 U	<0.000210											

Table 4
Remedial Investigation Report
Soil Sample Analytical Results

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Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Notes:

CAS - Chemical Abstract Service

NS - No standard

mg/kg - milligram per kilogram

NA - Not analyzed

ND - Not detected

RL - Reporting limit

<RL - Not detected

Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use, Restricted Use Restricted-Residential and Restricted Use Residential Soil Cleanup Objectives (SCO).

Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Remedial Programs Guidelines for Sampling and Analysis of Per- and Polyfluoroalkyl Substances (PFAS) Unrestricted Use, Restricted Use Restricted-Residential, and Restricted Use Residential Guidance Values (April 2023).

Criterion comparisons for 3- & 4-methylphenol (m&p cresol) are provided for reference. Promulgated SCOs are for 3-methylphenol (m-cresol) and 4-methylphenol (p-cresol).

Qualifiers:

D - The concentration reported is a result of a diluted sample.

B - The analyte was found in the associated analysis batch blank.

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds Unrestricted Use SCOs

10 - Result exceeds Restricted Use Restricted-Residential SCOs

10 - Result exceeds Restricted Use Residential SCOs

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC SGVs	Location	MW14	MW16	MW17	MW17	MW19	MW21	MW22
			Sample Name	MW14_060123	MW16_060123	MW17_060123	GWDUP01_060123	MW19_060223	MW21_060223	MW22_060223
			Sample Date	06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/02/2023	06/02/2023	06/02/2023
			Sample Depth	25-35	25-35	25-35	25-35	25-35	25-35	25-35
Unit				Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.86	2.34
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<80 U	<80 U	<80 U	<80 U	<80 U	<80 U	<80 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Acetone	67-64-1	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acrolein	107-02-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Acrylonitrile	107-13-1	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Benzene	71-43-2	1	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromochloromethane	74-97-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromomethane	74-83-9	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Carbon Disulfide	75-15-0	60	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chloroethane	75-00-3	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chloroform	67-66-3	7	ug/l	12.3	8.74	0.41 J	0.43 J	4.7	<0.5 U	1.68
Chloromethane	74-87-3	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cyclohexane	110-82-7	NS	ug/l	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Ethylbenzene	100-41-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
M,P-Xylene	179601-23-1	5	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
Methyl Acetate	79-20-9	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Methylcyclohexane	108-87-2	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Methylene Chloride	75-09-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
n-Butylbenzene	104-51-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
n-Propylbenzene	103-65-1	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
p-Cymene (p-Isopropyltoluene)	CYMP	NS	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.8
Sec-Butylbenzene	135-98-8	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.84	1.3
Styrene	100-42-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
T-Butylbenzene	98-06-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Tert-Butyl Alcohol	75-65-0	NS	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	3.18	2.94	3.97	4.71	1.05	<0.5 U	0.7
Toluene	108-88-3	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Total Xylenes	1330-20-7	5	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.5 U	0.25 J	0.42 J	0.49 J	<0.5 U	<0.5 U	0.51
Trichlorofluoromethane	75-69-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Vinyl Chloride	75-01-4	2	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Total BTEX	TOTAL BTEX	NS	ug/l	ND	ND	ND	ND	ND	ND	ND
Total CVOCs	TOTAL CVOCs	NS	ug/l	3.18	3.19	4.39	5.2	1.05	ND	1.21

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC SGVs	Location	MW14	MW16	MW17	MW17	MW19	MW21	MW22
			Sample Name	MW14_060123	MW16_060123	MW17_060123	GWDUP01_060123	MW19_060223	MW21_060223	MW22_060223
			Sample Date	06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/02/2023	06/02/2023	06/02/2023
			Sample Depth	25-35	25-35	25-35	25-35	25-35	25-35	25-35
			Unit	Result	Result	Result	Result	Result	Result	Result
Semi-Volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene	95-94-3	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 UJ	<5 UJ	<5 UJ
1,2-Diphenylhydrazine	122-66-7	0	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 UJ	<5 UJ	<5 UJ
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 UJ	<5 UJ	<5 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U
2,3,4,6-Tetrachlorophenol	58-90-2	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4,5-Trichlorophenol	95-95-4	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4,6-Trichlorophenol	88-06-2	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4-Dichlorophenol	120-83-2	1	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4-Dimethylphenol	105-67-9	1	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4-Dinitrophenol	51-28-5	1	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,4-Dinitrotoluene	121-14-2	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2,6-Dinitrotoluene	606-20-2	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Chloronaphthalene	91-58-7	10	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Chlorophenol	95-57-8	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Methylnaphthalene	91-57-6	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Methylphenol (o-Cresol)	95-48-7	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Nitroaniline	88-74-4	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
2-Nitrophenol	88-75-5	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
3 & 4 Methylphenol (m&p Cresol)	65794-96-9	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
3,3'-Dichlorobenzidine	91-94-1	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
3-Nitroaniline	99-09-2	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4,6-Dinitro-2-Methylphenol	534-52-1	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4-Bromophenyl Phenyl Ether	101-55-3	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4-Chloro-3-Methylphenol	59-50-7	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4-Chloroaniline	106-47-8	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4-Chlorophenyl Phenyl Ether	7005-72-3	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
4-Nitroaniline	100-01-6	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 UJ	<5 UJ	<5 UJ
4-Nitrophenol	100-02-7	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Acenaphthene	83-32-9	20	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	0.98	0.18
Acenaphthylene	208-96-8	NS	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	0.31	0.15
Acetophenone	98-86-2	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Alpha-Terpineol	98-55-5	NS	ug/l	<11.1 U	<10.8 U	<10 U	<11.1 U	<10.3 U	<10 U	<10 U
Aniline (Phenylamine, Aminobenzene)	62-53-3	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Anthracene	120-12-7	50	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	0.23	0.2
Atrazine	1912-24-9	7.5	ug/l	<0.556 U	<0.541 U	<0.5 U	<0.556 U	<0.513 U	<0.5 U	<0.5 U
Benzaldehyde	100-52-7	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Benzenidine	92-87-5	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Benzo(a)anthracene	56-55-3	0.002	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Benzo(a)pyrene	50-32-8	0	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Benzo(g,h,i)Perylene	191-24-2	NS	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Benzoic Acid	65-85-0	NS	ug/l	<5.56 UJ	<5.41 UJ	<5 UJ	<5.56 UJ	<5.13 U	<5 U	<5 U
Benzyl Alcohol	100-51-6	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Benzyl Butyl Phthalate	85-68-7	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Biphenyl (Diphenyl)	92-52-4	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Bis(2-chloroethoxy) methane	111-91-1	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Bis(2-chloroethyl) ether (2-chloroethyl ether)	111-44-4	1	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Bis(2-chloroisopropyl) ether	108-60-1	5	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Bis(2-ethylhexyl) phthalate	117-81-7	5	ug/l	<0.556 U	<0.541 U	<0.5 U	<0.556 U	2.18 J	2.16 J	2.6 J
Caprolactam	105-60-2	NS	ug/l	<5.56 UJ	<5.41 UJ	<5 UJ	<5.56 UJ	<5.13 U	<5 U	<5 U
Carbazole	86-74-8	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Chrysene	218-01-9	0.002	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Dibenz(a,h)anthracene	53-70-3	NS	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Dibenzofuran	132-64-9	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Dibutyl phthalate	84-74-2	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Diethyl phthalate	84-66-2	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Dimethyl phthalate	131-11-3	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Diethyl phthalate	117-84-0	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Fluoranthene	206-44-0	50	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Fluorene	86-73-7	50	ug/l	<0.0556 U	<0.0541 U	0.35 J	<0.0556 UJ	0.246	1.86	0.99
Hexachlorobenzene	118-74-1	0.04	ug/l	<0.0222 U	<0.0216 U	<0.02 U	<0.0222 U	<0.0205 U	<0.02 U	<0.02 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<0.556 U	<0.541 U	<0.5 U	<0.556 U	<0.513 UJ	<0.5 UJ	<0.5 UJ
Hexachlorocyclopentadiene	77-47-4	5	ug/l	<11.1 U	<10.8 U	<10 U	<11.1 U	<10.3 U	<10 U	<10 U
Hexachloroethane	67-72-1	5	ug/l	<0.556 U	<0.541 U	<0.5 U	<0.556 U	<0.513 U	<0.5 U	<0.5 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U
Isophorone	78-59-1	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Naphthalene	91-20-3	10	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	0.15	0.13
Nitrobenzene	98-95-3	0.4	ug/l	<0.278 U	<0.27 U	<0.25 U	<0.278 U	<0.256 U	<0.25 U	<0.25 U
n-Nitrosodimethylamine	62-75-9	NS	ug/l	<0.556 UJ	<0.541 UJ	<0.5 UJ	<0.556 UJ	<0.513 UJ	<0.5 UJ	<0.5 UJ
n-Nitrosodi-N-Propylamine	621-64-7	NS	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
n-Nitrosodiphenylamine	86-30-6	50	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Pentachlorophenol	87-86-5	1	ug/l	<0.278 U	<0.27 U	<0.25 U	<0.278 U	<0.256 U	<0.25 U	<0.25 U
Phenanthrene	85-01-8	50	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	0.0615	1.39	0.78
Phenol	108-95-2	1	ug/l	<5.56 U	<5.41 U	<5 U	<5.56 U	<5.13 U	<5 U	<5 U
Pyrene	129-00-0	50	ug/l	<0.0556 U	<0.0541 U	<0.05 U	<0.0556 U	<0.0513 U	<0.05 U	<0.05 U

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC SGVs	Location	MW14	MW16	MW17	MW17	MW19	MW21	MW22
			Sample Name	MW14_060123	MW16_060123	MW17_060123	GWDUP01_060123	MW19_060223	MW21_060223	MW22_060223
			Sample Date	06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/02/2023	06/02/2023	06/02/2023
			Sample Depth	25-35	25-35	25-35	25-35	25-35	25-35	25-35
Unit				Result	Result	Result	Result	Result	Result	Result
Pesticides										
4,4'-DDD	72-54-8	0.3	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
4,4'-DDE	72-55-9	0.2	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
4,4'-DDT	50-29-3	0.2	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Aldrin	309-00-2	0	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Alpha BHC (Alpha Hexachlorocyclohexane)	319-84-6	0.01	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Alpha Chlordane	5103-71-9	NS	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Alpha Endosulfan	959-98-8	NS	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	0.04	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Beta Endosulfan	33213-65-9	NS	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Chlordane (alpha and gamma)	57-74-9	0.05	ug/l	<0.01 U	NA	NA	NA	<0.0108 U	NA	NA
Delta Bhc (Delta Hexachlorocyclohexane)	319-86-8	0.04	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Dieldrin	60-57-1	0.004	ug/l	<0.002 U	NA	NA	NA	<0.00216 U	NA	NA
Endosulfan Sulfate	1031-07-8	NS	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Endrin	72-20-8	0	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Endrin Aldehyde	7421-93-4	5	ug/l	<0.01 U	NA	NA	NA	<0.0108 U	NA	NA
Endrin Ketone	53494-70-5	5	ug/l	<0.01 U	NA	NA	NA	<0.0108 U	NA	NA
Gamma Bhc (Lindane)	58-89-9	0.05	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Gamma-Chlordane	5566-34-7	NS	ug/l	<0.01 U	NA	NA	NA	<0.0108 U	NA	NA
Heptachlor	76-44-8	0.04	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Heptachlor Epoxide	1024-57-3	0.03	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Methoxychlor	72-43-5	35	ug/l	<0.004 U	NA	NA	NA	<0.00432 U	NA	NA
Toxaphene	8001-35-2	0.06	ug/l	<0.1 U	NA	NA	NA	<0.108 U	NA	NA
Polychlorinated Biphenyl										
PCB-1016 (Aroclor 1016)	12674-11-2	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1221 (Aroclor 1221)	11104-28-2	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1232 (Aroclor 1232)	11141-16-5	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1242 (Aroclor 1242)	53469-21-9	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1248 (Aroclor 1248)	12672-29-6	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1254 (Aroclor 1254)	11097-69-1	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
PCB-1260 (Aroclor 1260)	11096-82-5	NS	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
Total PCBs	1336-36-3	0.09	ug/l	<0.05 U	<0.05 U	<0.0513 U	<0.05 U	<0.0541 U	<0.0526 U	<0.0526 U
Metals - Dissolved										
Aluminum	7429-90-5	NS	ug/l	158	<55.6 U	<55.6 UJ	<55.6 U	<55.6 U	<55.6 U	<55.6 U
Antimony	7440-36-0	3	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Arsenic	7440-38-2	25	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Barium	7440-39-3	1000	ug/l	58.1	51.5	54.9 J	56.8	28.9	37.5	44.2
Beryllium	7440-41-7	3	ug/l	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U
Cadmium	7440-43-9	5	ug/l	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U
Calcium	7440-70-2	NS	ug/l	40,300	51,100	58,800 J	58,800	43,500	54,200	122,000
Chromium, Total	7440-47-3	50	ug/l	<5.56 U	<5.56 U	<5.56 UJ	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Cobalt	7440-48-4	NS	ug/l	<4.44 U	<4.44 U	<4.44 UJ	<4.44 U	<4.44 U	<4.44 U	<4.44 U
Copper	7440-50-8	200	ug/l	<22.2 U	34.6	26.8 J	29.4	<22.2 U	<22.2 U	<22.2 U
Iron	7439-89-6	300	ug/l	<278 U	<278 U	<278 UJ	<278 U	<278 U	2,400	4,330
Lead	7439-92-1	25	ug/l	<5.56 U	<5.56 U	<5.56 UJ	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Magnesium	7439-95-4	35000	ug/l	9,780	11,700	14,300 J	14,700	10,800	14,600	22,100
Manganese	7439-96-5	300	ug/l	684	984	616 J	636	513	667	288
Mercury	7439-97-6	0.7	ug/l	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U
Nickel	7440-02-0	100	ug/l	14.3	<11.1 U	34.6 J	34.5	<11.1 U	<11.1 U	<11.1 U
Potassium	7440-09-7	NS	ug/l	3,960	2,990	4,420 J	4,420	2,230	2,000	3,220
Selenium	7782-49-2	10	ug/l	15.8	8.65	10.8 J	15.7 J	10.7	17.5	14.3
Silver	7440-22-4	50	ug/l	<5.56 U	<5.56 U	<5.56 UJ	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Sodium	7440-23-5	20000	ug/l	140,000	112,000	130,000 J	136,000	35,600	67,900	31,000
Thallium	7440-28-0	0.5	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Vanadium	7440-62-2	NS	ug/l	<11.1 U	<11.1 U	<11.1 UJ	<11.1 U	<11.1 U	<11.1 U	<11.1 U
Zinc	7440-66-6	2000	ug/l	34.5	62.1	67.8 J	67.1	<27.8 U	<27.8 U	<27.8 U
Metals - Total										
Aluminum	7429-90-5	NS	ug/l	<55.6 U	<55.6 U	<55.6 U	<55.6 U	<55.6 U	218	<55.6 U
Antimony	7440-36-0	3	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Arsenic	7440-38-2	25	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Barium	7440-39-3	1000	ug/l	57.1	50.8	56.6	61.6	33.3	47.3	50.2
Beryllium	7440-41-7	3	ug/l	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U	<0.333 U
Cadmium	7440-43-9	5	ug/l	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U	<0.556 U
Calcium	7440-70-2	NS	ug/l	40,000	50,600	57,000	57,100	47,100	54,900	131,000
Chromium, Hexavalent	18540-29-9	50	ug/l	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Chromium, Total	7440-47-3	NS	ug/l	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Chromium, Trivalent	16065-83-1	NS	ug/l	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Cobalt	7440-48-4	NS	ug/l	<4.44 U	<4.44 U	<4.44 U	<4.44 U	<4.44 U	<4.44 U	<4.44 U
Copper	7440-50-8	200	ug/l	<22.2 U	27.3	24.1	<22.2 U	<22.2 U	<22.2 U	<22.2 U
Iron	7439-89-6	300	ug/l	<278 U	<278 U	<278 U	<278 U	<278 U	2,740	5,250
Lead	7439-92-1	25	ug/l	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Magnesium	7439-95-4	35000	ug/l	9,270	10,700	13,900	14,100	11,300	14,500	24,800
Manganese	7439-96-5	300	ug/l	645	887	597	487	568	715	320
Mercury	7439-97-6	0.7	ug/l	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U	<0.2 U
Nickel	7440-02-0	100	ug/l	13.1	<11.1 U	31.3	29	<11.1 U	<11.1 U	<11.1 U
Potassium	7440-09-7	NS	ug/l	4,020	3,140	4,630	4,550	2,510	2,430	3,720
Selenium	7782-49-2	10	ug/l	3.18 U	<1.11 U	3.22 U	3.22 U	3.2 U	4.85 J	4.04 J
Silver	7440-22-4	50	ug/l	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U	<5.56 U
Sodium	7440-23-5	20000	ug/l	130,000	99,500	123,000	125,000	47,400	86,100	41,600
Thallium	7440-28-0	0.5	ug/l	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U	<1.11 U
Vanadium	7440-62-2	NS	ug/l	<11.1 U	<11.1 U	<11.1 U	<11.1 U	<11.1 U	<11.1 U	<11.1 U

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC SGVs	Location	MW14	MW16	MW17	MW17	MW19	MW21	MW22
			Sample Name	MW14_060123	MW16_060123	MW17_060123	GWDUP01_060123	MW19_060223	MW21_060223	MW22_060223
			Sample Date	06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/02/2023	06/02/2023	06/02/2023
			Sample Depth	25-35	25-35	25-35	25-35	25-35	25-35	25-35
Zinc	7440-66-6	2000	Unit	Result	Result	Result	Result	Result	Result	Result
			ug/l	30.2	53.9	60.6	46.9	<27.8 U	<27.8 U	37.5

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDEC SGVs	Location	MW14	MW16	MW17	MW17	MW19	MW21	MW22
			Sample Name	MW14_060123	MW16_060123	MW17_060123	GWDUP01_060123	MW19_060223	MW21_060223	MW22_060223
			Sample Date	06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/02/2023	06/02/2023	06/02/2023
			Sample Depth	25-35	25-35	25-35	25-35	25-35	25-35	25-35
Unit				Result	Result	Result	Result	Result	Result	Result
General Chemistry										
Cyanide	57-12-5	200	ug/l	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Perfluorooctanoic acids										
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	763051-92-9	NS	ug/l	<0.00687 U	<0.00694 U	<0.00715 U	<0.00668 U	<0.00715 U	<0.00733 U	<0.00669 U
1h,1h,2h,2h-Perfluorohexanesulfonic Acid (4:2)	757124-72-4	NS	ug/l	<0.00682 U	<0.00688 U	<0.00709 UJ	<0.00663 UJ	<0.0071 U	<0.00728 U	<0.00664 UJ
3:3 FTCA	356-02-5	NS	ug/l	<0.00454 U	<0.00459 U	<0.00473 U	<0.00442 U	<0.00473 U	<0.00485 U	<0.00443 U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	NS	ug/l	<0.00687 U	<0.00694 U	<0.00715 U	<0.00668 U	<0.00715 U	<0.00733 U	<0.00669 U
5:3 FTCA	914637-49-3	NS	ug/l	<0.0227 U	<0.0229 U	<0.0236 U	<0.0221 U	<0.0237 U	<0.0243 U	<0.0221 U
7:3 FTCA	812-70-4	NS	ug/l	<0.0227 UJ	<0.0229 UJ	<0.0236 UJ	<0.0221 UJ	<0.0237 U	<0.0243 U	<0.0221 U
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	756426-58-1	NS	ug/l	<0.0068 U	<0.00687 U	<0.00707 U	<0.00661 U	<0.00708 U	<0.00726 U	<0.00662 U
N-ethyl perfluorooctane- sulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
N-ethylperfluorooctane sulfonamide	4151-50-2	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
N-ethylperfluorooctane sulfonamidoe	1691-99-2	NS	ug/l	<0.0182 U	<0.0184 U	<0.0189 U	<0.0177 U	<0.0189 U	<0.0194 U	<0.0177 U
N-methyl perfluorooctane- sulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
N-methylperfluorooctane sulfonamide	31506-32-8	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
N-methylperfluorooctanesulfonamidol	24448-09-7	NS	ug/l	<0.0182 U	<0.0184 U	<0.0189 U	<0.0177 U	<0.0189 U	<0.0194 U	<0.0177 U
Nonafluoro-3,6-dioxaheptanoic acid	151772-58-6	NS	ug/l	<0.00364 U	<0.00367 U	<0.00378 U	<0.00353 U	<0.00378 U	<0.00388 U	<0.00354 U
Perfluoro(2-ethoxyethane)sulfonic acid	113507-82-7	NS	ug/l	<0.00324 U	<0.00327 U	<0.00337 U	<0.00315 U	<0.00337 U	<0.00345 U	<0.00315 U
Perfluoro-3-methoxypropanoic acid	377-73-1	NS	ug/l	<0.00364 U	<0.00367 U	<0.00378 U	<0.00353 U	<0.00378 U	<0.00388 U	<0.00354 U
Perfluoro-4-methoxybutanoic acid	863090-89-5	NS	ug/l	<0.00364 U	<0.00367 U	<0.00378 U	<0.00353 U	<0.00378 U	<0.00388 U	<0.00354 U
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NS	ug/l	0.00193	0.00404	0.00405	0.00463	0.00295	0.00549	0.00597
Perfluorobutanoic acid (PFBA)	375-22-4	NS	ug/l	0.00407 J	0.0078	0.00517 J	0.00551 J	0.00489 J	0.00805	0.0136 J
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NS	ug/l	<0.00175 U	<0.00177 U	<0.00182 U	<0.00171 U	<0.00183 U	<0.00187 U	<0.00171 U
Perfluorodecanoic acid (PFDA)	335-76-2	NS	ug/l	<0.00182 U	0.00187	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Perfluorododecanesulfonic Acid (PFDOS)	79780-39-5	NS	ug/l	<0.00176 U	<0.00178 U	<0.00183 U	<0.00171 U	<0.00184 U	<0.00188 U	<0.00172 U
Perfluorododecanoic Acid (PFDoA)	307-55-1	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NS	ug/l	<0.00174 U	<0.00175 U	<0.00181 U	<0.00169 U	<0.00181 U	0.00118 J	<0.00169 U
Perfluoroheptanoic acid (PFHpA)	375-85-9	NS	ug/l	0.00494	0.0132	0.00365	0.00442	0.00454	0.0071	0.00857
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NS	ug/l	0.00233	0.00627	0.00293 J	0.00246	0.0019	0.00358	0.00265
Perfluorohexanoic Acid (PFHxA)	307-24-4	NS	ug/l	0.0126	0.0172	0.0046	0.00464	0.00894	0.00858	0.0152
Perfluorononanesulfonic Acid (PFNS)	68259-12-1	NS	ug/l	<0.00175 U	<0.00176 U	<0.00182 U	<0.0017 U	<0.00182 U	<0.00186 U	<0.0017 U
Perfluorononanoic Acid (PFNA)	375-95-1	NS	ug/l	0.00155 J	0.00126 J	0.00101 J	<0.00177 U	0.00143 J	0.00146 J	0.00195
Perfluorooctanesulfonamide (FOSA)	754-91-6	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.0027	ug/l	0.0194 J	0.039 J	0.018 J	0.0282 J	0.0535 J	0.0352 J	0.0252 J
Perfluorooctanoic Acid (PFOA)	335-67-1	0.0067	ug/l	0.0253	0.0474	0.0282	0.0354	0.0307	0.0497	0.0297
Perfluoropentanesulfonic Acid	2706-91-4	NS	ug/l	<0.00171 U	0.000883 J	0.000793 J	<0.00166 U	<0.00178 U	<0.00182 U	<0.00166 U
Perfluoropentanoic Acid (PFPeA)	2706-90-3	NS	ug/l	0.0145	0.0132	0.00544	0.00429	0.00883	0.00679	0.0136
Perfluorotetradecanoic Acid (PFTA)	376-06-7	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	NS	ug/l	<0.00182 U	<0.00184 U	<0.00189 U	<0.00177 U	<0.00189 U	<0.00194 U	<0.00177 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	39108-34-4	NS	ug/l	<0.00698 U	<0.00705 U	<0.00726 U	<0.00679 U	<0.00727 UJ	0.00216 J	<0.0068 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	27619-97-2	NS	ug/l	<0.00691 U	<0.00698 U	<0.00719 U	<0.00672 U	<0.00719 U	<0.00737 U	0.00148 J
Tetrafluoro-2- (heptafluoropropoxy) propanoic Acid	13252-13-6	NS	ug/l	<0.00727 U	<0.00734 U	<0.00756 U	<0.00707 U	<0.00757 U	<0.00776 U	<0.00708 U

Table 5
Remedial Investigation Report
Groundwater Sample Analytical Results

Page 6 of 6

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Notes:

CAS - Chemical Abstract Service

NS - No standard

ug/l - microgram per liter

NA - Not analyzed

ND - Not detected

RL - Reporting limit

<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 6
Remedial Investigation Report
Soil Vapor Sample Analytical Results

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDOH Decision Matrices Minimum Concentrations	Location	AA01	AA02	SV16	SV17	SV19	SV20	SV21
			Sample Name	AA01_052323	AA02_052523	SV16_052323	SV17_052323	SV19_052523	SV20_052523	SV21_052523
			Sample Date	05/23/2023	05/25/2023	05/23/2023	05/23/2023	05/25/2023	05/25/2023	05/25/2023
			Sample Type	AA	AA	SV	SV	SV	SV	SV
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	NS	ug/m3	<0.6 U	<0.66 U	<12 U	<1.1 U	<15 U	<6.2 U	<13 U
1,1,1-Trichloroethane	71-55-6	100	ug/m3	<0.48 U	<0.52 U	<9.6 U	17 D	<12 U	<4.9 U	<10 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	ug/m3	<0.6 U	<0.66 U	<12 U	<1.1 U	<15 U	<6.2 U	<13 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	ug/m3	0.73 D	0.81 J	<14 U	<1.2 U	<17 U	<6.9 U	<14 U
1,1,2-Trichloroethane	79-00-5	NS	ug/m3	<0.48 U	<0.52 U	<9.6 U	<0.84 U	<12 U	<4.9 U	<10 U
1,1-Dichloroethane	75-34-3	NS	ug/m3	<0.35 U	<0.39 U	<7.1 U	<0.62 U	<8.8 U	<3.7 U	<7.4 U
1,1-Dichloroethene	75-35-4	6	ug/m3	<0.086 U	<0.095 U	<1.8 U	<0.15 U	<2.2 U	<0.9 U	<1.8 U
1,2,4-Trichlorobenzene	120-82-1	NS	ug/m3	<0.65 U	<0.71 U	<13 U	2.7 J	<16 U	<6.7 U	<14 U
1,2,4-Trimethylbenzene	95-63-6	NS	ug/m3	<0.43 U	0.47 D	<8.7 U	1.8 D	<11 U	<4.4 U	<9 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	ug/m3	<0.67 U	<0.74 U	<14 U	<1.2 U	<17 U	<7 U	<14 U
1,2-Dichlorobenzene	95-50-1	NS	ug/m3	<0.52 U	<0.58 U	<11 U	<0.92 U	<13 U	<5.4 U	<11 U
1,2-Dichloroethane	107-06-2	NS	ug/m3	<0.35 U	<0.39 U	<7.1 U	<0.62 U	<8.8 U	<3.7 U	<7.4 U
1,2-Dichloropropane	78-87-5	NS	ug/m3	<0.4 U	<0.44 U	<8.2 U	<0.71 U	<10 U	<4.2 U	<8.5 U
1,2-Dichlorotetrafluoroethane	76-14-2	NS	ug/m3	<0.61 U	<0.67 U	<12 U	<1.1 U	<15 U	<6.3 U	<13 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	NS	ug/m3	<0.43 U	<0.47 U	<8.7 U	<0.76 U	<11 U	<4.4 U	<9 U
1,3-Butadiene	106-99-0	NS	ug/m3	<0.58 U	<0.64 U	<12 U	26 D	<14 U	<6 U	<12 U
1,3-Dichlorobenzene	541-73-1	NS	ug/m3	<0.52 U	<0.58 U	<11 U	<0.92 U	<13 U	<5.4 U	<11 U
1,3-Dichloropropane	142-28-9	NS	ug/m3	<0.4 U	<0.44 U	<8.2 U	<0.71 U	<10 U	<4.2 U	<8.5 U
1,4-Dichlorobenzene	106-46-7	NS	ug/m3	<0.52 U	<0.58 U	<11 U	<0.92 U	<13 U	<5.4 U	<11 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/m3	<0.63 U	<0.69 U	<13 U	<1.1 U	<16 U	<6.5 U	<13 U
2-Hexanone (MBK)	591-78-6	NS	ug/m3	<0.71 U	<0.79 U	<14 U	4.4 D	42 D	20 D	25 D
4-Ethyltoluene	622-96-8	NS	ug/m3	<0.43 U	<0.47 U	<8.7 U	1.4 D	<11 U	<4.4 U	<9 U
Acetone	67-64-1	NS	ug/m3	6.5 D	6.1 D	490 D	520 BD	4,000 BD	2,000 D	3,300 BD
Acrylonitrile	107-13-1	NS	ug/m3	<0.19 U	<0.21 U	56 D	<0.33 U	<4.7 U	<2 U	<4 U
Allyl Chloride (3-Chloropropene)	107-05-1	NS	ug/m3	<1.4 U	<1.5 U	<28 U	<2.4 U	<34 U	<14 U	<29 U
Benzene	71-43-2	NS	ug/m3	0.39 D	0.77 D	<5.6 U	22 D	<6.9 U	8.4 D	<5.9 U
Benzyl Chloride	100-44-7	NS	ug/m3	<0.45 U	<0.5 U	<9.1 U	<0.8 U	<11 U	<4.7 U	<9.5 U
Bromodichloromethane	75-27-4	NS	ug/m3	<0.58 U	<0.64 U	<12 U	1.1 D	<15 U	<6.1 U	<12 U
Bromoethene	593-60-2	NS	ug/m3	<0.38 U	<0.42 U	<7.7 U	<0.67 U	<9.5 U	<4 U	<8 U
Bromoform	75-25-2	NS	ug/m3	<0.9 U	<0.99 U	<18 U	<1.6 U	<22 U	<9.4 U	<19 U
Bromomethane	74-83-9	NS	ug/m3	<0.34 U	<0.37 U	<6.9 U	<0.6 U	<8.4 U	<3.5 U	<7.1 U
Carbon Disulfide	75-15-0	NS	ug/m3	<0.27 U	<0.3 U	<5.5 U	4.0 D	6.8 D	3.1 D	<5.7 U
Carbon Tetrachloride	56-23-5	6	ug/m3	0.49 D	0.48 D	<2.8 U	0.29 D	<3.4 U	<1.4 U	<2.9 U
Chlorobenzene	108-90-7	NS	ug/m3	<0.4 U	<0.44 U	<8.1 U	<0.71 U	<10 U	<4.2 U	<8.4 U
Chloroethane	75-00-3	NS	ug/m3	<0.23 U	<0.25 U	<4.7 U	<0.41 U	<5.7 U	<2.4 U	<4.8 U
Chloroform	67-66-3	NS	ug/m3	<0.43 U	<0.47 U	<8.6 U	55 D	<11 U	<4.4 U	<8.9 U
Chloromethane	74-87-3	NS	ug/m3	1.2 D	1.5 D	<3.6 U	4.5 D	<4.5 U	<1.9 U	<3.8 U
Cis-1,2-Dichloroethene	156-59-2	6	ug/m3	<0.086 U	<0.095 U	<1.8 U	<0.15 U	<2.2 U	<0.9 U	<1.8 U
Cis-1,3-Dichloropropene	10061-01-5	NS	ug/m3	<0.4 U	<0.44 U	<8 U	<0.7 U	<9.8 U	<4.1 U	<8.3 U
Cyclohexane	110-82-7	NS	ug/m3	<0.3 U	<0.33 U	12 D	3.6 D	<7.5 U	<3.1 U	<6.3 U
Dibromochloromethane	124-48-1	NS	ug/m3	<0.74 U	<0.82 U	<15 U	<1.3 U	<18 U	<7.7 U	<16 U
Dichlorodifluoromethane	75-71-8	NS	ug/m3	2.7 D	3.1 D	14 D	4.4 D	<11 U	<4.5 U	<9.1 U
Ethyl Acetate	141-78-6	NS	ug/m3	<0.63 U	<0.69 U	<13 U	<1.1 U	<16 U	<6.5 U	<13 U
Ethylbenzene	100-41-4	NS	ug/m3	<0.38 U	0.42 D	<7.7 U	1.9 D	<9.4 U	<3.9 U	<8 U
Hexachlorobutadiene	87-68-3	NS	ug/m3	<0.93 U	<1 U	<19 U	<1.6 U	<23 U	<9.7 U	<20 U
Isopropanol	67-63-0	NS	ug/m3	2.5 D	1.7 D	10 D	2.4 D	58 D	13 D	33 D
M,P-Xylene	179601-23-1	NS	ug/m3	<0.76 U	1.3 D	<15 U	4.8 D	<19 U	<7.9 U	<16 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	NS	ug/m3	0.67 D	0.60 D	27 D	35 D	210 D	110 D	150 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentano	108-10-1	NS	ug/m3	<0.36 U	<0.39 U	<7.2 U	<0.63 U	<8.9 U	<3.7 U	<7.5 U
Methyl Methacrylate	80-62-6	NS	ug/m3	0.82 D	<0.39 U	<7.2 U	7.2 D	<8.9 U	<3.7 U	<7.5 U
Methylene Chloride	75-09-2	100	ug/m3	<0.61 U	<0.67 U	<12 U	<1.1 U	<15 U	<6.3 U	<13 U
n-Heptane	142-82-5	NS	ug/m3	<0.36 U	<0.39 U	2,600 D	<3.2 U	<8.9 U	<3.7 U	<7.5 U
n-Hexane	110-54-3	NS	ug/m3	0.64 D	0.34 D	5,300 D	22 BD	<7.6 U	5.7 D	<6.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	ug/m3	<0.38 U	0.42 D	<7.7 U	1.8 D	<9.4 U	<3.9 U	<8 U
Propylene	115-07-1	NS	ug/m3	0.40 D	0.81 D	<3 U	120 D	64 D	88 D	48 D
Styrene	100-42-5	NS	ug/m3	<0.37 U	<0.41 U	<7.5 U	0.98 D	<9.2 U	<3.9 U	<7.8 U
Tert-Butyl Methyl Ether	1634-04-4	NS	ug/m3	<0.31 U	<0.35 U	<6.4 U	<0.55 U	<7.8 U	<3.3 U	<6.6 U
Tetrachloroethene (PCE)	127-18-4	100	ug/m3	<0.59 U	<0.65 U	130 D	100 D	24 D	23 D	16 D
Tetrahydrofuran	109-99-9	NS	ug/m3	<0.51 U	<0.57 U	<10 U	31 D	20 D	24 D	27 D
Toluene	108-88-3	NS	ug/m3	1.4 D	2.1 D	13 D	14 D	9.0 D	12 D	8.3 D
Trans-1,2-Dichloroethene	156-60-5	NS	ug/m3	<0.35 U	<0.38 U	<7 U	<0.61 U	<8.6 U	<3.6 U	<7.3 U
Trans-1,3-Dichloropropene	10061-02-6	NS	ug/m3	<0.4 U	<0.44 U	<8 U	<0.7 U	<9.8 U	<4.1 U	<8.3 U
Trichloroethene (TCE)	79-01-6	6	ug/m3	<0.12 U	<0.13 U	6.6 D	6.1 D	<2.9 U	<1.2 U	<2.5 U
Trichlorofluoromethane	75-69-4	NS	ug/m3	1.5 D	1.6 D	<9.9 U	2.8 D	<12 U	7.6 D	<10 U
Vinyl Acetate	108-05-4	NS	ug/m3	<0.31 U	<0.34 U	<6.2 U	<0.54 U	<7.6 U	<3.2 U	<6.5 U
Vinyl Chloride	75-01-4	6	ug/m3	<0.11 U	<0.12 U	<2.3 U	1.7 D	<2.8 U	<1.2 U	<2.3 U
Total BTEX	TOTAL BTEX	NS	ug/m3	1.79	5.01	13	44.5	9	20.4	8.3
Total CVOCs	TOTAL CVOCs	NS	ug/m3	ND	ND	136.6	124.8	24	23	16
Total VOCs	TOTAL VOCs	NS	ug/m3	19.94	22.52	8,658.6	1,019.87	4,433.8	2,314.8	3,607.3

Table 6
Remedial Investigation Report
Soil Vapor Sample Analytical Results

Page 2 of 2

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Notes:

AA - Ambient Air
SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
ND - Not detected
RL - Reporting limit
<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

Ambient air sample analytical results are shown for reference only.

Qualifiers:

D - The concentration reported is a result of a diluted sample.
B - The analyte was found in the associated analysis batch blank.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10	- Result exceeds minimum soil vapor concentrations recommending mitigation
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Table 2
SVI Evaluation Report
Sub-Slab Vapor and Indoor Air Sample Analytical Results - NYSDOH AGVs

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDOH AGVs	Location	AA03	IA01_SSV01		IA02_SSV02		IA03_SSV03	
			Sample Name	AA03_100324	IA01_100324	SSV01_100324	IA02_100324	SSV02_100324	IA03_100324	SSV03_100324
			Sample Date	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024
			Sample Type	AA	IA	SSV	IA	SSV	IA	SSV
			Unit	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	NS	ug/m3	<0.562 U	<0.559 UJ	<2.23 U	<0.535 UJ	<9.96 UJ	<0.568 UJ	<0.997 U
1,1,1-Trichloroethane	71-55-6	NS	ug/m3	<0.446 U	<0.444 UJ	<1.77 U	0.425 J	<7.92 UJ	<0.451 UJ	<0.792 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	ug/m3	<0.562 U	<0.559 UJ	<2.23 U	0.642 J	<9.96 UJ	<0.568 UJ	<0.997 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	ug/m3	0.94 D	0.811 J	<2.48 U	1.19 J	<11.1 UJ	0.887 J	1.11 D
1,1,2-Trichloroethane	79-00-5	NS	ug/m3	<0.446 U	<0.444 UJ	<1.77 U	0.468 J	<7.92 UJ	<0.451 UJ	<0.792 U
1,1-Dichloroethane	75-34-3	NS	ug/m3	<0.331 U	<0.329 UJ	<1.31 U	0.315 J	<5.87 UJ	<0.335 UJ	<0.588 U
1,1-Dichloroethene	75-35-4	NS	ug/m3	0.162 D	0.258 J	<0.643 U	0.463 J	<2.88 UJ	0.295 J	<0.288 U
1,2,4-Trichlorobenzene	120-82-1	NS	ug/m3	<0.607 U	<0.604 UJ	<2.41 U	<0.578 UJ	<10.8 UJ	<0.614 UJ	<1.08 U
1,2,4-Trimethylbenzene	95-63-6	NS	ug/m3	<0.402 U	4.48 J	<1.59 U	5.32 J	<7.13 UJ	4.96 J	0.999 D
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	ug/m3	<0.629 U	<0.625 UJ	<2.49 U	0.658 J	<11.1 UJ	<0.635 UJ	<1.12 U
1,2-Dichlorobenzene	95-50-1	NS	ug/m3	<0.492 U	<0.489 UJ	<1.95 U	0.468 J	<8.72 UJ	<0.497 UJ	<0.873 U
1,2-Dichloroethane	107-06-2	NS	ug/m3	<0.331 U	0.428 J	<1.31 U	0.631 J	<5.87 UJ	0.435 J	<0.588 U
1,2-Dichloropropane	78-87-5	NS	ug/m3	<0.378 U	<0.376 UJ	<1.5 U	0.396 J	<6.7 UJ	<0.382 UJ	<0.671 U
1,2-Dichlorotetrafluoroethane	76-14-2	NS	ug/m3	<0.572 U	<0.569 UJ	<2.27 U	0.817 J	<10.1 UJ	<0.578 UJ	<1.02 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	NS	ug/m3	<0.402 U	2 J	<1.59 U	2.45 J	<7.13 UJ	1.95 J	<0.714 U
1,3-Butadiene	106-99-0	NS	ug/m3	<0.543 U	<0.54 UJ	<2.15 U	<0.517 UJ	<9.63 UJ	<0.549 UJ	<0.964 U
1,3-Dichlorobenzene	541-73-1	NS	ug/m3	<0.492 U	<0.489 UJ	<1.95 U	<0.468 UJ	<8.72 UJ	<0.497 UJ	<0.873 U
1,3-Dichloropropane	142-28-9	NS	ug/m3	<0.378 U	<0.376 UJ	<1.5 U	0.36 J	<6.71 UJ	<0.382 UJ	<0.671 U
1,4-Dichlorobenzene	106-46-7	NS	ug/m3	0.492 D	16 J	2.14 D	19.5 J	<8.72 UJ	15.7 J	2.01 D
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/m3	<0.589 U	<0.587 UJ	<2.34 U	<0.561 UJ	<10.5 UJ	<0.596 UJ	<1.05 U
2,2,4-Trimethylpentane	540-84-1	NS	ug/m3	0.688 D	2.89 J	<0.757 U	2.98 J	6.1 J	2.82 J	0.814 D
2-Hexanone (MBK)	591-78-6	NS	ug/m3	<0.67 U	2 J	<2.66 U	2.9 J	<11.9 UJ	2.27 J	1.31 D
4-Ethyltoluene	622-96-8	NS	ug/m3	<0.402 U	4.92 J	<1.59 U	5.71 J	<7.13 UJ	4.96 J	0.785 D
Acetone	67-64-1	NS	ug/m3	5.65 D	94.9 J	125 D	109 J	386 J	127 J	39.9 D
Acrylonitrile	107-13-1	NS	ug/m3	<0.178 U	<0.177 UJ	<0.704 U	0.254 J	<3.15 UJ	<0.179 UJ	<0.315 U
Allyl Chloride (3-Chloropropene)	107-05-1	NS	ug/m3	<1.28 U	<1.27 UJ	<5.07 U	<1.22 UJ	<22.7 UJ	<1.29 UJ	<2.27 U
Benzene	71-43-2	NS	ug/m3	0.575 D	1.25 J	<1.04 U	1.37 J	<4.64 UJ	1.32 J	0.696 D
Benzyl Chloride	100-44-7	NS	ug/m3	<0.423 U	<0.421 UJ	<1.68 U	<0.403 UJ	<7.51 UJ	<0.428 UJ	<0.752 U
Bromodichloromethane	75-27-4	NS	ug/m3	<0.548 U	<0.545 UJ	<2.17 U	0.783 J	<9.72 UJ	<0.554 UJ	<0.973 U
Bromoethene	593-60-2	NS	ug/m3	<0.358 U	<0.356 UJ	<1.42 U	0.341 J	<6.35 UJ	<0.362 UJ	<0.635 U
Bromoform	75-25-2	NS	ug/m3	<0.846 UJ	<0.841 UJ	<3.35 UJ	<0.805 UJ	<15 UJ	<0.855 UJ	<1.5 UJ
Bromomethane	74-83-9	NS	ug/m3	<0.318 U	<0.316 UJ	<1.26 U	<0.302 UJ	<5.63 UJ	<0.321 UJ	<0.564 U
Carbon Disulfide	75-15-0	NS	ug/m3	<0.255 U	0.304 J	4.75 D	0.461 J	<4.52 UJ	0.361 J	0.904 D
Carbon Tetrachloride	56-23-5	NS	ug/m3	0.669 D	1.74 J	1.84 D	2.06 J	3.65 J	1.87 J	1.64 D
Chlorobenzene	108-90-7	NS	ug/m3	<0.377 U	0.375 J	<1.49 U	0.574 J	<6.68 UJ	0.381 J	<0.668 U
Chloroethane	75-00-3	NS	ug/m3	<0.216 U	<0.215 UJ	<0.855 U	<0.206 UJ	<3.83 UJ	<0.218 UJ	<0.383 U
Chloroform	67-66-3	NS	ug/m3	0.399 D	8.19 J	108 D	8.6 J	105 J	8.64 J	88.8 D
Chloromethane	74-87-3	NS	ug/m3	0.912 D	1.58 J	<0.669 U	1.71 J	<3 UJ	1.5 J	<0.3 U
Cis-1,2-Dichloroethene	156-59-2	NS	ug/m3	0.195 D	<0.161 UJ	1.29 D	<0.154 UJ	8.63 J	<0.164 UJ	4.14 D
Cis-1,3-Dichloropropene	10061-01-5	NS	ug/m3	<0.371 U	<0.369 UJ	<1.47 U	<0.354 UJ	<6.59 UJ	<0.375 UJ	<0.659 U
Cyclohexane	110-82-7	NS	ug/m3	0.282 D	0.925 J	<1.12 U	0.992 J	<4.99 UJ	0.797 J	<0.5 U
Dibromochloromethane	124-48-1	NS	ug/m3	<0.697 UJ	<0.693 UJ	<2.76 UJ	<0.664 UJ	<12.4 UJ	<0.704 UJ	<1.24 UJ
Dichlorodifluoromethane	75-71-8	NS	ug/m3	2.43 D	<0.403 UJ	86.7 D	28 J	167 J	27.3 J	<0.718 U
Ethyl Acetate	141-78-6	NS	ug/m3	0.796 D	118 J	4.09 D	121 J	<10.5 UJ	117 J	10.5 D
Ethylbenzene	100-41-4	NS	ug/m3	0.355 D	1.2 J	<1.41 U	1.39 J	<6.3 UJ	1.15 J	<0.631 U
Hexachlorobutadiene	87-68-3	NS	ug/m3	<0.872 U	<0.868 UJ	<3.46 U	0.831 J	<15.5 UJ	<0.882 UJ	<1.55 U
Isopropanol	67-63-0	NS	ug/m3	2.59 D	80.6 J	35.9 D	86.9 J	97.7 J	82.3 J	17.6 D
M,P-Xylene	179601-23-1	NS	ug/m3	1.03 D	3.92 J	<2.82 U	4.26 J	<12.6 UJ	3.73 J	1.32 D
Methyl Ethyl Ketone (2-Butanone)	78-93-3	NS	ug/m3	0.651 D	2.66 J	7.65 D	2.64 J	22.3 J	2.85 J	2.83 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/m3	<0.335 U	<0.333 UJ	<1.33 U	0.383 J	<5.94 UJ	<0.339 UJ	<0.595 U
Methyl Methacrylate	80-62-6	NS	ug/m3	<0.335 U	1.63 J	<1.33 U	1.82 J	<5.94 UJ	1.59 J	0.594 D
Methylene Chloride	75-09-2	60	ug/m3	0.994 D	1.47 J	<2.25 U	1.57 J	<10.1 UJ	1.35 J	1.16 D
Naphthalene	91-20-3	NS	ug/m3	<0.858 U	0.939 J	<3.4 U	<0.817 UJ	<15.2 UJ	0.867 J	<1.52 U
n-Heptane	142-82-5	NS	ug/m3	0.335 D	1.87 J	<1.33 U	1.95 J	<5.95 UJ	1.76 J	<0.595 U
n-Hexane	110-54-3	NS	ug/m3	0.519 D	2.01 J	<1.14 U	2.06 J	<5.11 UJ	2.04 J	<0.512 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	ug/m3	0.426 D	1.84 J	<1.41 U	2.1 J	<6.3 UJ	1.8 J	<0.63 U
Propylene	115-07-1	NS	ug/m3	0.479 D	<0.14 UJ	<0.558 U	0.697 J	<2.5 UJ	<0.142 UJ	<0.25 U
Styrene	100-42-5	NS	ug/m3	<0.348 U	2.46 J	<1.38 U	2.89 J	<6.18 UJ	2.47 J	<0.619 U
Tert-Butyl Methyl Ether	1634-04-4	NS	ug/m3	<0.295 U	<0.293 UJ	<1.17 U	<0.281 UJ	<5.23 UJ	<0.298 UJ	<0.523 U
Tetrachloroethene (PCE)	127-18-4	30	ug/m3	0.555 D	0.663 J	76.1 D	0.898 J	445 J	0.729 J	284 D
Tetrahydrofuran	109-99-9	NS	ug/m3	<0.483 U	<0.48 UJ	<1.91 U	0.689 J	<8.56 UJ	0.561 J	<0.856 U
Toluene	108-88-3	NS	ug/m3	0.925 D	6.26 J	1.59 D	6.11 J	<5.47 UJ	5.67 J	1.31 D
Trans-1,2-Dichloroethene	156-60-5	NS	ug/m3	<0.324 U	<0.323 UJ	<1.29 U	0.34 J	<5.75 UJ	<0.328 UJ	<0.576 U
Trans-1,3-Dichloropropene	10061-02-6	NS	ug/m3	<0.371 U	<0.369 UJ	<1.47 U	<0.354 UJ	<6.59 UJ	<0.375 UJ	<0.659 U
Trichloroethene (TCE)	79-01-6	2	ug/m3	0.22 D	0.394 J	6.79 D	0.586 J	38.2 J	0.311 J	26 D
Trichlorofluoromethane	75-69-4	NS	ug/m3	1.47 D	2.38 J	3.1 D	2.54 J	<8.15 UJ	2.28 J	2.94 D
Vinyl Acetate	108-05-4	NS	ug/m3	<0.288 U	<0.287 UJ	<1.14 U	<0.274 UJ	<5.11 UJ	<0.291 UJ	<0.511 U
Vinyl Chloride	75-01-4	NS	ug/m3	0.105 D	<0.104 UJ	<0.414 U	<0.0996 UJ	<1.85 UJ	<0.106 UJ	<0.186 U
Total BTEX	BTEX	NS	ug/m3	3.311	14.47	1.59	15.23	ND	13.67	3.326
Total VOCs	TOTALVOCs	NS	ug/m3	24.844	371.347	464.94	441.492	1279.58	431.904	491.362

Table 2
SVI Evaluation Report
Sub-Slab Vapor and Indoor Air Sample Analytical Results - NYSDOH AGVs

Page 2 of 2

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Notes:

AA - Ambient Air

IA - Indoor Air

SSV - Sub-slab Soil Vapor

CAS - Chemical Abstract Service

NS - No standard

ug/m3 - microgram per cubic meter

NA - Not analyzed

RL - Reporting limit

<RL - Not detected

Indoor air sample analytical results are compared to the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (through to 2017).

Ambient air sample analytical results are shown for reference only.

Qualifiers:

D - The concentration reported is a result of a diluted sample.

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDOH AGVs

Table 3
SVI Evaluation Report
Sub-Slab Vapor and Indoor Air Sample Analytical Results - NYSDOH Decision Matrices

Sutter Crossing
Brooklyn, New York
NYSDEC BCP Site No.: C224331
Langan Project No.: 170456301

Analyte	CAS Number	NYSDOH Decision Matrix (IA)	NYSDOH Decision Matrix (SSV)	Location	AA03	IA01	SSV01	IA02	SSV02	IA03	SSV03		
				Sample Name	AA03_100324	IA01_100324	SSV01_100324	IA02_100324	SSV02_100324	IA03_100324	SSV03_100324		
				Sample Date	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024		
				Sample Type	AA	IA	SSV	IA	SSV	IA	SSV		
				Unit	Result	Result	Result	Result	Result	Result	Result		
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	3	10	100	1000	ug/m3	<0.446	<0.444	<1.77	0.425	<7.92	<0.451	<0.792
1,1-Dichloroethene	75-35-4	0.2	1	6	60	ug/m3	0.162	0.258	<0.643	0.463	<2.88	0.295	<0.288
1,2,4-Trimethylbenzene	95-63-6	2	10	60	600	ug/m3	<0.402	4.48	<1.59	5.32	<7.13	4.96	0.999
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	2	10	60	600	ug/m3	<0.402	2	<1.59	2.45	<7.13	1.95	<0.714
2,2,4-Trimethylpentane	540-84-1	2	10	60	600	ug/m3	0.688	2.89	<0.757	2.98	6.1	2.82	0.814
Benzene	71-43-2	2	10	60	600	ug/m3	0.575	1.25	<1.04	1.37	<4.64	1.32	0.696
Carbon Tetrachloride	56-23-5	0.2	1	6	60	ug/m3	0.669	1.74	1.84	2.06	3.65	1.87	1.64
Cis-1,2-Dichloroethene	156-59-2	0.2	1	6	60	ug/m3	0.195	<0.161	1.29	<0.154	8.63	<0.164	4.14
Cyclohexane	110-82-7	2	10	60	600	ug/m3	0.282	0.925	<1.12	0.992	<4.99	0.797	<0.5
Ethylbenzene	100-41-4	2	10	60	600	ug/m3	0.355	1.2	<1.41	1.39	<6.3	1.15	<0.631
M,P-Xylene	179601-23-1	6	20	200	2000	ug/m3	1.03	3.92	<2.82	4.26	<12.6	3.73	1.32
Methylene Chloride	75-09-2	3	10	100	1000	ug/m3	0.994	1.47	<2.25	1.57	<10.1	1.35	1.16
Naphthalene	91-20-3	2	10	60	600	ug/m3	<0.858	0.939	<3.4	<0.817	<15.2	0.867	<1.52
n-Heptane	142-82-5	6	20	200	2000	ug/m3	0.335	1.87	<1.33	1.95	<5.95	1.76	<0.595
n-Hexane	110-54-3	6	20	200	2000	ug/m3	0.519	2.01	<1.14	2.06	<5.11	2.04	<0.512
o-Xylene (1,2-Dimethylbenzene)	95-47-6	2	10	60	600	ug/m3	0.426	1.84	<1.41	2.1	<6.3	1.8	<0.63
Tetrachloroethene (PCE)	127-18-4	3	10	100	1000	ug/m3	0.555	0.663	76.1	0.898	445	0.729	284
Toluene	108-88-3	10	50	300	3000	ug/m3	0.925	6.26	1.59	6.11	<5.47	5.67	1.31
Trichloroethene (TCE)	79-01-6	0.2	1	6	60	ug/m3	0.22	0.394	6.79	0.586	38.2	0.311	26
Vinyl Chloride	75-01-4	0	0.2	6	60	ug/m3	0.105	<0.104	<0.414	<0.0996	<1.85	<0.106	<0.186

Notes:

- AA - Ambient Air
- IA - Indoor Air
- SSV - Sub-slab Soil Vapor
- CAS - Chemical Abstract Service
- NS - No standard
- ug/m3 - microgram per cubic meter
- NA - Not analyzed
- RL - Reporting limit
- <RL - Not detected

Co-located sub-slab vapor and indoor air sample analytical results are evaluated using the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (through to 2024). Ambient air sample analytical results are shown for reference only.

Exceedance Summary:

- 10 - Result exceeds the minimum threshold for which monitoring is recommended
- 10 - Result exceeds the minimum threshold for which mitigation is recommended
- 10 - Result exceeds the minimum threshold for which identification of source(s) and resampling or mitigation is recommended