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December 13, 2024

Daniel Nierenberg, P.G.
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

Re: Remedial Design Work Plan
438 11th Avenue
New York, New York
NYSDEC BCP Site No. C231095
Langan Project No.: 170395001

Dear Mr. Nierenberg:

On behalf of 438-444 Eleventh Avenue, LLC (the "Volunteer"), we respectfully submit this Remedial Design Work Plan (RDWP) to perform the remedial activities outlined below at 438 Eleventh Avenue ("site") in New York, New York. This RDWP is submitted to satisfy the "Notice of Termination and Opportunity to Cure" letter on April 16, 2024 in accordance with the April 25, 2024 virtual conference meeting with NYSDEC confirming that the RDWP would constitute meaningful progress towards the site remedy.

This RDWP conforms to the Brownfield Cleanup Agreement (Site No. C231095) and the NYSDEC-approved Remedial Action Work Plan (RAWP), dated July 2021. This RDWP presents elements of the remedy that are not included in the RAWP and includes installation of a monitoring well to confirm the presence of petroleum light non-aqueous phase liquid (LNAPL) in the northern part of the site, collection of groundwater and soil samples, performance of LNAPL baildown testing, and deployment of oil-absorbent socks for LNAPL recovery, as necessary.

Site Background

The 38,150-square-foot site is identified on the New York City tax map as Block 708, Lot 1 and a part of Lot 62. The site contains a one-story vacant commercial building formerly occupied by a lumber storage facility (Lot 62), a vacant parking area (northern portion of Lot 1), and a vacant open lot formerly used as a railroad yard (southern portion of Lot 1). The eastern boundary of the site adjoins an easement for the Amtrak Empire Line. The proximity of the easement requires Amtrak approval for all intrusive work, including drilling, support-of-excavation, and excavation.

Amtrak and the New York City Fire Department (FDNY) require updated studies from the Volunteer for a previously submitted Emergency Ventilation Report for the adjoining railway easement. As a result of other overbuild projects along the Empire Line, Amtrak will issue revised air quality standards for the easement. After issuance of the standards, the Volunteer will revise the simulation data and modeling studies. Amtrak and FDNY will also require additional

simulations related to passenger egress and access during fires and other emergencies. A site location plan is provided on Figure 1 and the site plan is shown on Figures 2 and 3. Following approval of the updated studies and additional simulations by Amtrak and FDNY, the Volunteer will proceed with implementing those components of the RAWP that are not part of the RDWP.

Previous Investigations

During groundwater sampling conducted in September and August 2016 and in February 2020, several petroleum-related volatile organic compounds (VOCs), including benzene-toluene-ethylbenzene-xylene (BTEX), and naphthalene were detected at concentrations above the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standard/Guidance Value for drinking water (SGV) in four wells on Lot 62 (MW-09, MW-11, MW-15, and GB10) and one well on the northern portion of Lot 1 (MW-12).

About 6 inches of LNAPL was also observed in MW09 in 2018. Fingerprint analysis of the LNAPL indicated an affinity to weathered No. 2 fuel oil or diesel fuel and weathered leaded gasoline. Tetraethyl lead, a gasoline additive that was phased out of production in the 1980s, was also detected in the sample. The source of the petroleum impacts may be residual contamination associated with undetected releases from historical petroleum bulk storage and vehicle repair operations on Lot 62. The analytical results were presented in a Remedial Investigation Report (RIR), dated October 27, 2019, and a Remedial Investigation (RI) Addendum, dated September 8, 2020. NYSDEC approved a July 2021 RAWP and issued a Decision Document on July 22, 2021. The RAWP stated that the five VOC-impacted wells would be re-sampled prior to implementation of the soil and groundwater remedy, in conjunction with groundwater treatability analysis and a remediation feasibility study.

A supplemental groundwater investigation was performed on May 17 and 18, 2023 in accordance with a March 17, 2023 NYSDEC-approved Supplemental Groundwater Sampling Plan. The investigation confirmed that a 2.4-inch-thick layer of LNAPL remained in one well (MW09), although the LNAPL thickness had diminished by about 80% since 2018. Dissolved-phase petroleum-related VOCs in the well exhibiting the highest concentrations near the northern site boundary increased marginally, though total concentrations remained under 200 micrograms per liter (µg/L). The results from the two other wells sampled in the northwestern portion of Lot 62 and northern portion of Lot 1 indicated that most of the contaminant volume remains in the northern and central portions of Lot 62. The southern extent of LNAPL was not delineated, and the former geotechnical observation well south of MW-09 (GB10) had been infilled with sediment.

The most recent groundwater sampling analytical results are shown on Figure 2.

BCP Status

The proposed next steps of the remedy are described in the following sections of this RDWP. The RDWP will be implemented in accordance with the NYSDEC-approved RAWP, which

includes a Construction Health and Safety Plan (CHASP) and a Quality Assurance Project Plan (QAPP).

Sequence of Remedial Activities

Due to the persistent presence of LNAPL and petroleum-impacted groundwater observed during the May 2023 supplemental groundwater investigation, Langan proposes the following scope of work to proceed with LNAPL remediation:

- Obtain from Amtrak and the New York City Transit Authority (NYCTA) approval for well installation due to the site's proximity to the NYCTA No. 7 Subway beneath Eleventh Avenue and the open-cut Amtrak easement located west and east of the site, respectively
- Installation of one bedrock well to confirm the presence of LNAPL at former open bedrock well GB10
- Completion of a baildown test at well MW-09 to assess transmissivity of LNAPL in the subsurface
- Deployment and periodic gauging of oil-only absorbent socks in wells with recoverable LNAPL
- Disposal of recovered LNAPL and petroleum-contaminated groundwater at a facility permitted to accept the waste
- Collection of groundwater samples for analysis for VOCs and remediation parameters during two phases: 1) prior to the baildown test, and 2) following passive removal of LNAPL via oil-absorbent socks
- Collection of at least one soil sample during well installation for analysis of VOCs, metals, and other treatment parameters

The above activities will be summarized in a Remedial Design Memorandum.

Confirmation Monitoring Well Installation

A licensed driller will install a 4-inch-diameter open bedrock well (MW-16) in Lot 62 to evaluate for LNAPL near former open bedrock well GB10. Langan will continuously screen soil generated during well installation with a photoionization detector (PID) equipped with a 10.6 electron volt bulb and for visual and olfactory evidence of environmental impacts (e.g., staining and odor). The well will be installed to between 20 and 30 feet below grade surface (bgs). Prior to well installation, steel casing will be installed about three feet into bedrock to straddle the bedrock-soil interface and seal the well from infiltration of perched groundwater. The well will consist of an open borehole within the bedrock below the casing with the steel casing extending to surface grade. The well will be finished at grade with a flush-mounted well collar and sealed, stainless steel well cover.

The well will be developed following installation using a surge block with inertial pump to agitate and remove fines. Community air monitoring will be implemented in accordance with the New

York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) and RAWP during well installation. A hand-held PID will also be used to screen the work zone and top of the borehole for VOCs during drilling for safety.

Soil cuttings will be containerized into 55-gallon steel drums, analyzed for waste characterization parameters, and disposed at a permitted facility following receipt of the analytical results. The proposed well location is shown on Figure 3.

Baildown Test

Following installation of bedrock well MW-16, an LNAPL baildown test will be conducted at MW-09 to assess the transmissivity and recoverability of the LNAPL in general accordance with standard means (i.e., ASTM International [ASTM] E2856-11 LNAPL Transmissivity). Prior to the bail down test, a water/oil interface probe (IP) will be deployed into MW-09 to measure initial depth to product (DTP) and depth to water (DTW). A bailer will then be lowered to rapidly remove 2 to 3 maximum bailer volumes of LNAPL. DTP and DTW measurements will be recorded in quick succession until measurements stabilize, and the rate of LNAPL thickness recovery will be used to estimate transmissivity. The estimated transmissivity and recoverability will be used to evaluate LNAPL recovery measures.

Oil-Absorbent Sock Deployment

Approximately four weeks after well installation and completion of the baildown test, LNAPL thickness and groundwater depth will be gauged. Oil-only absorbent socks will then be placed in all wells containing LNAPL. The frequency of gauging/sock replacement will be determined based on the results of the baildown test. Absorbent socks saturated with LNAPL will be replaced and disposed of at a permitted facility. The oil-absorbent socks will be weighed and the product thickness measured to document the recovered volume of LNAPL. Waste disposal manifests will be included in the Remedial Design Memorandum.

Groundwater and Soil Sampling

Groundwater Sampling

Groundwater samples will be collected from wells that are free of LNAPL during two phases: 1) a minimum of one week following installation of the confirmation well and prior to the baildown test, and 2) following passive removal of LNAPL removal using oil-absorbent socks.

During each sampling event, one groundwater sample will be collected from five existing groundwater monitoring wells (i.e. MW-09, MW-11, MW-12, MW-14, and MW-15) and the proposed confirmation monitoring well (i.e. MW-16), if they do not exhibit LNAPL. Prior to sampling, each well will be gauged with an interface probe to record a depth to groundwater and the thickness of LNAPL, if present. Prior to sample collection, each well will be purged by pumping until the physical and chemical parameters (e.g., temperature, dissolved oxygen, oxygen reduction potential, and turbidity) stabilize within the ranges specified in the United States Environmental Protection Agency (USEPA) Low Stress Purging and Sampling Procedure for the

Collection of Groundwater Samples from Monitoring Wells, Dated July 30, 1996 and Revised January 19, 2010. Samples will be collected with a variable speed submersible pump (e.g., Geotech GeoSub® 2 pump) and dedicated polyethylene tubing. The submersible pump will be decontaminated with an Alconox® - deionized water mixture between collection of each sample. Development and purge water will be containerized for off-site disposal.

Groundwater samples will be analyzed for Target Compound List (TCL)/Target Analyte List (TAL) VOCs, semivolatile organic compounds (SVOCs), total petroleum hydrocarbon/gasoline range organics (TPH-GRO), total and dissolved iron, total and dissolved manganese, sulfate, and nitrate. One groundwater sample will also be collected during the first sampling event for analysis for alkalinity, hardness, total organic carbon (TOC) via the Lloyd Khan method, biological oxygen demand (BOD), chemical oxygen demand (COD), total phosphorus, ammonia, total dissolved solids (TDS) and salinity to provide information about general aquifer chemistry.

Quality assurance/quality control procedures will adhere to those described in NYSDEC Division of Environmental Remediation (DER)-10, and all laboratory analyses will be conducted by a NYSDOH Environmental Laboratory Approval Program-certified laboratory in accordance with USEPA SW-846 methods and deliverables will comply with NYSDEC Analytical Services Protocol B. Environmental data will be reported electronically using the database software application EQuIS in comportment with the NYSDEC Environmental Information Management System.

Soil Sampling

One sample of saturated soil will be collected for laboratory analysis during drilling for installation of the confirmation well to evaluate soil chemistry. If saturated soil is not encountered, the soil sample will be collected above the bedrock interface to evaluate soil conditions within potential perched groundwater. The sample will be analyzed for TCL VOCs, TAL metals, diesel range and oil range organics (DRO/ORO), TPH, and TOC via the Lloyd Kahn method. Table 1 summarizes the proposed groundwater and soil sample analytical program.

Reporting

Site observation reports will be completed following each day of field activities and provided to NYSDEC and NYSDOH within 48 hours of the completion of each field day. Tabulated laboratory analytical results will be provided to NYSDEC with the subsequent BCP Monthly Progress Report within two months of receipt of the results. Following implementation of the RDWP, the findings and analytical results of the LNAPL and groundwater gauging, LNAPL recovery, and groundwater sampling will be summarized in a Remedial Design Memorandum. The memorandum will also include summary tables and figures, a boring log, a well construction log, sampling logs, daily field reports, Data Usability Summary Reports, and waste disposal manifests.

Enclosures: Figure 1 – Site Location Map
Figure 2 – Historical Groundwater Sample Analytical Results Map
Figure 3 - Proposed Confirmation Monitoring Well Location Plan

Table 1 – Soil and Groundwater Sample Summary

cc: S. Knoop (Langan); R. James; M. Babik (Tishman Speyer)

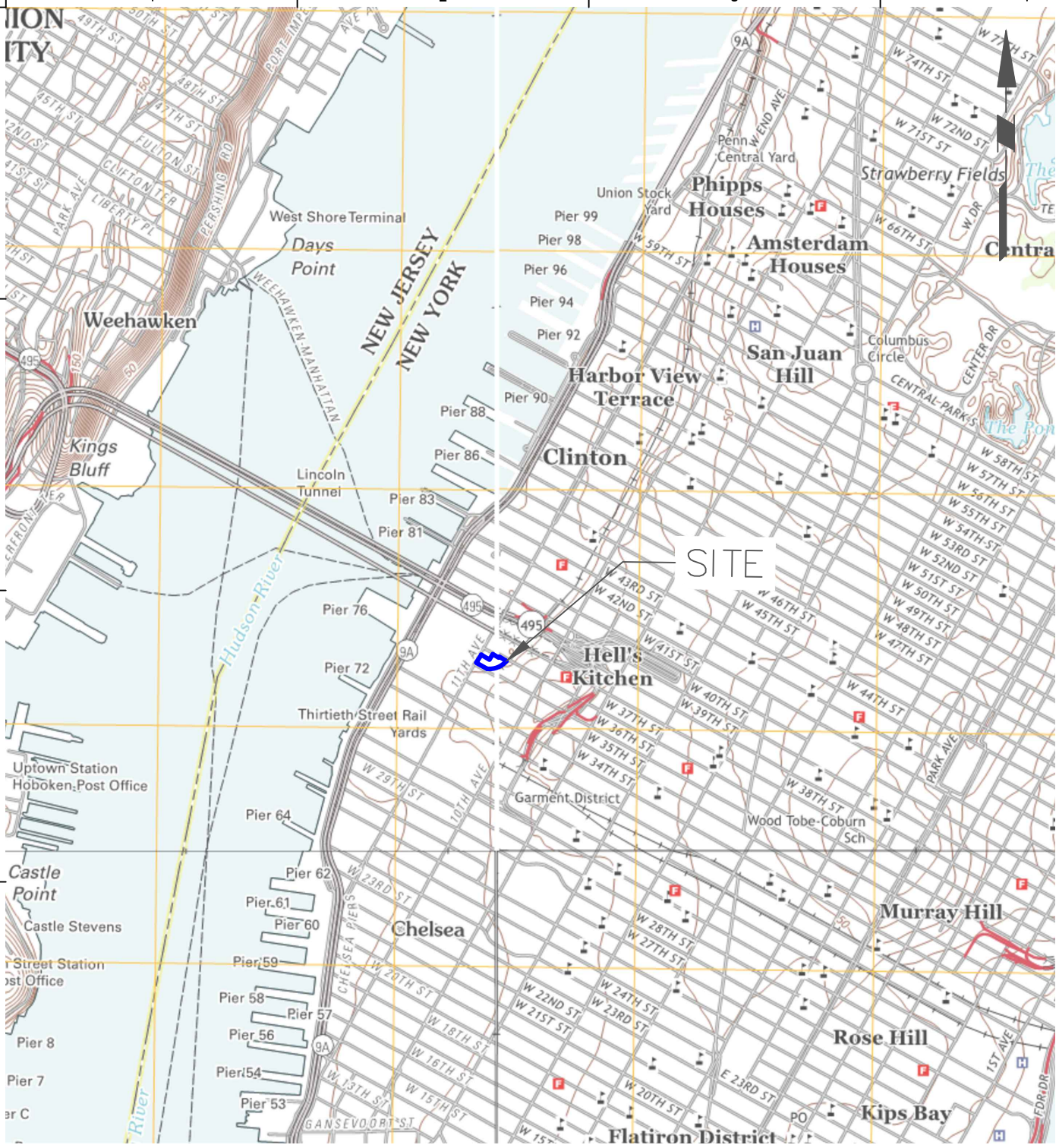
CERTIFICATION

I, Jason Hayes, certify that I am currently a New York State registered Professional Engineer as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and that this Remedial Design Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

089491	12/13/2024	
NYS Professional Engineer	Date	Signature

FIGURES



BASEMAP REFERENCE: USGS 7.5 MINUTE SERIES CENTRAL PARK, NY TOPOGRAPHIC QUADRANGLE, 2013

APPROXIMATE SITE BOUNDARY

2000 0 1000 2000

SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN

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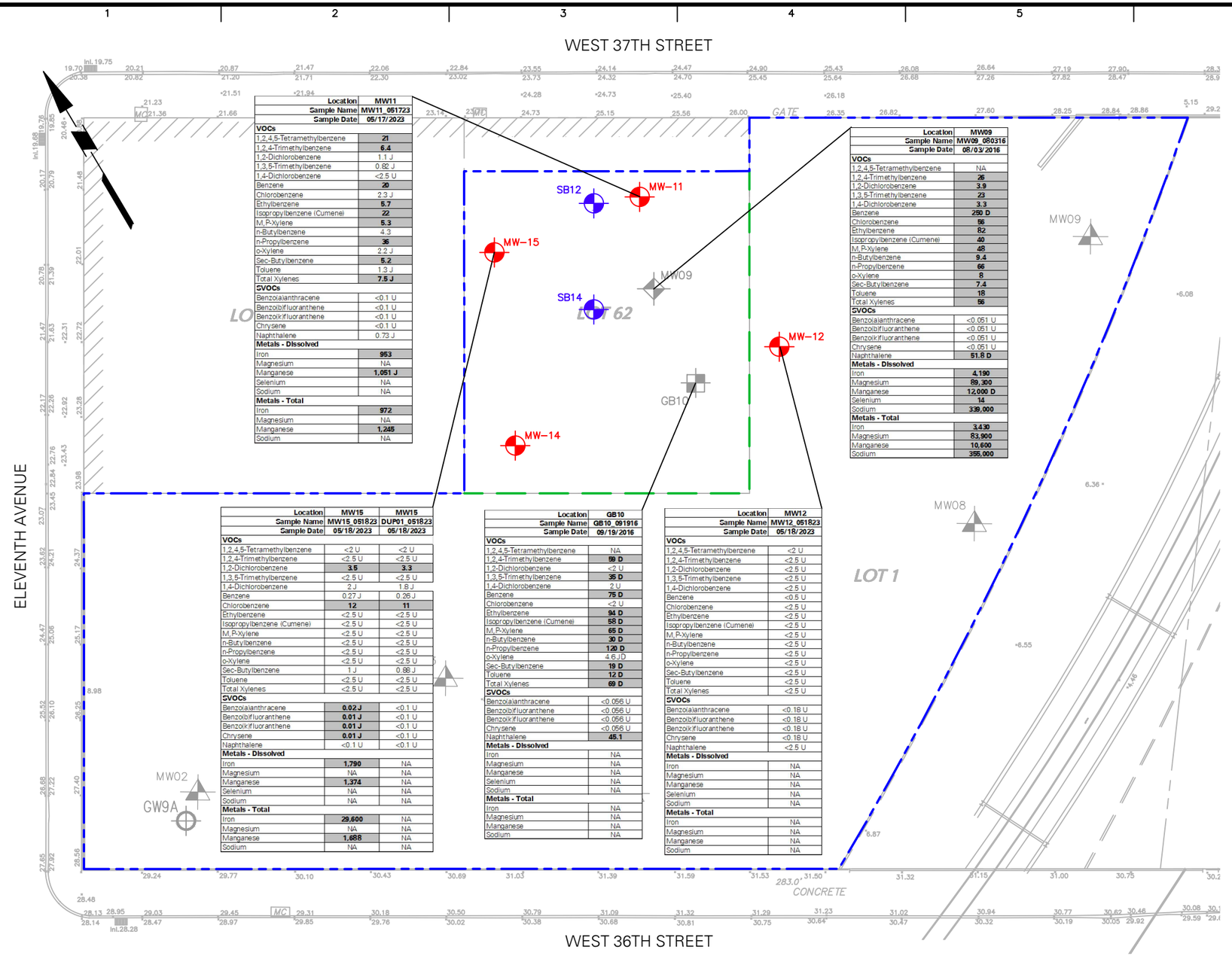
Project	438 11TH AVENUE BLOCK No. 708, LOT Nos. 1 AND 62 NEW YORK NEW YORK
Figure Title	SITE LOCATION MAP
Project No.	170395001
Date	7/2/2019
Drawn By	KMS
Checked By	SK
Figure No.	1

Filename: \\langan.com\data\NYC\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 1 - Site Location Map.dwg Date: 5/14/2020 Time: 16:59 User: lesmail Style Table: Langan.stb Layout: ANSIA-BP



Location	MW11
Sample Name	MW11_051723
Sample Date	05/17/2023
VOCs	
1,2,4,5-Tetramethylbenzene	**21**
1,2,4-Trimethylbenzene	**6.4**
1,2-Dichlorobenzene	1.1 J
1,3,5-Trimethylbenzene	0.82 J
1,4-Dichlorobenzene	<2.5 U
Benzene	**20**
Chlorobenzene	2.3 J
Ethylbenzene	**5.7**
Isopropylbenzene (Cumene)	**22**
M,P-Xylene	**5.3**
n-Butylbenzene	4.3
n-Propylbenzene	**36**
o-Xylene	2.2 J
Sec-Butylbenzene	**5.2**
Toluene	1.3 J
Total Xylenes	**7.5 J**
SVOCs	
Benzo(a)anthracene	<0.1 U
Benzo(b)fluoranthene	<0.1 U
Benzo(k)fluoranthene	<0.1 U
Chrysene	<0.1 U
Naphthalene	0.73 J
Metals - Dissolved	
Iron	**953**
Magnesium	NA
Manganese	**1,051 J**
Selenium	NA
Sodium	NA
Metals - Total	
Iron	**972**
Magnesium	NA
Manganese	**1,245**
Sodium	NA

Location	MW09
Sample Name	MW09_080316
Sample Date	08/03/2016
VOCs	
1,2,4,5-Tetramethylbenzene	NA
1,2,4-Trimethylbenzene	**26**
1,2-Dichlorobenzene	**3.9**
1,3,5-Trimethylbenzene	**23**
1,4-Dichlorobenzene	**3.3**
Benzene	**250 D**
Chlorobenzene	**86**
Ethylbenzene	**82**
Isopropylbenzene (Cumene)	**40**
M,P-Xylene	**48**
n-Butylbenzene	**9.4**
n-Propylbenzene	**66**
o-Xylene	**8**
Sec-Butylbenzene	**7.4**
Toluene	**18**
Total Xylenes	**56**
SVOCs	
Benzo(a)anthracene	<0.051 U
Benzo(b)fluoranthene	<0.051 U
Benzo(k)fluoranthene	<0.051 U
Chrysene	<0.051 U
Naphthalene	**51.8 D**
Metals - Dissolved	
Iron	**4,190**
Magnesium	**89,300**
Manganese	**12,000 D**
Selenium	**14**
Sodium	**339,000**
Metals - Total	
Iron	**3,430**
Magnesium	**83,900**
Manganese	**10,600**
Sodium	**355,000**

Location	MW15	MW15
Sample Name	MW15_051823	DUP01_051823
Sample Date	05/18/2023	05/18/2023
VOCs		
1,2,4,5-Tetramethylbenzene	<2 U	<2 U
1,2,4-Trimethylbenzene	<2.5 U	<2.5 U
1,2-Dichlorobenzene	**3.5**	**3.3**
1,3,5-Trimethylbenzene	<2.5 U	<2.5 U
1,4-Dichlorobenzene	2 J	1.8 J
Benzene	0.27 J	0.26 J
Chlorobenzene	**12**	**11**
Ethylbenzene	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	<2.5 U	<2.5 U
M,P-Xylene	<2.5 U	<2.5 U
n-Butylbenzene	<2.5 U	<2.5 U
n-Propylbenzene	<2.5 U	<2.5 U
o-Xylene	<2.5 U	<2.5 U
Sec-Butylbenzene	1 J	0.88 J
Toluene	<2.5 U	<2.5 U
Total Xylenes	<2.5 U	<2.5 U
SVOCs		
Benzo(a)anthracene	**0.02 J**	<0.1 U
Benzo(b)fluoranthene	**0.01 J**	<0.1 U
Benzo(k)fluoranthene	**0.01 J**	<0.1 U
Chrysene	**0.01 J**	<0.1 U
Naphthalene	<0.1 U	<0.1 U
Metals - Dissolved		
Iron	**1,790**	NA
Magnesium	NA	NA
Manganese	**1,374**	NA
Selenium	NA	NA
Sodium	NA	NA
Metals - Total		
Iron	**29,600**	NA
Magnesium	NA	NA
Manganese	**1,688**	NA
Sodium	NA	NA

Location	GB10
Sample Name	GB10_091916
Sample Date	09/19/2016
VOCs	
1,2,4,5-Tetramethylbenzene	NA
1,2,4-Trimethylbenzene	**59 D**
1,2-Dichlorobenzene	<2 U
1,3,5-Trimethylbenzene	**35 D**
1,4-Dichlorobenzene	2 U
Benzene	**75 D**
Chlorobenzene	<2 U
Ethylbenzene	**94 D**
Isopropylbenzene (Cumene)	**58 D**
M,P-Xylene	**65 D**
n-Butylbenzene	**30 D**
n-Propylbenzene	**120 D**
o-Xylene	4.6 JD
Sec-Butylbenzene	**19 D**
Toluene	**12 D**
Total Xylenes	**69 D**
SVOCs	
Benzo(a)anthracene	<0.056 U
Benzo(b)fluoranthene	<0.056 U
Benzo(k)fluoranthene	<0.056 U
Chrysene	<0.056 U
Naphthalene	**45.1**
Metals - Dissolved	
Iron	NA
Magnesium	NA
Manganese	NA
Selenium	NA
Sodium	NA
Metals - Total	
Iron	NA
Magnesium	NA
Manganese	NA
Sodium	NA

Location	MW12
Sample Name	MW12_051823
Sample Date	05/18/2023
VOCs	
1,2,4,5-Tetramethylbenzene	<2 U
1,2,4-Trimethylbenzene	<2.5 U
1,2-Dichlorobenzene	<2.5 U
1,3,5-Trimethylbenzene	<2.5 U
1,4-Dichlorobenzene	<2.5 U
Benzene	<0.5 U
Chlorobenzene	<2.5 U
Ethylbenzene	<2.5 U
Isopropylbenzene (Cumene)	<2.5 U
M,P-Xylene	<2.5 U
n-Butylbenzene	<2.5 U
n-Propylbenzene	<2.5 U
o-Xylene	<2.5 U
Sec-Butylbenzene	<2.5 U
Toluene	<2.5 U
Total Xylenes	<2.5 U
SVOCs	
Benzo(a)anthracene	<0.18 U
Benzo(b)fluoranthene	<0.18 U
Benzo(k)fluoranthene	<0.18 U
Chrysene	<0.18 U
Naphthalene	<2.5 U
Metals - Dissolved	
Iron	NA
Magnesium	NA
Manganese	NA
Selenium	NA
Sodium	NA
Metals - Total	
Iron	NA
Magnesium	NA
Manganese	NA
Sodium	NA

LEGEND

- SITE BOUNDARY
- LOT 62/LOT 1 BOUNDARY
- MW–11 — SUPPLEMENTAL GROUNDWATER MONITORING WELLS (2020)
- SB–12 — 2017 RI SOIL BORINGS EXHIBITING FIELD AND/OR ANALYTICAL EVIDENCE OF PETROLEUM IMPACTS
- SB/MW09 — 2016 RI LOT 62 MONITORING WELL LOCATION
- GB10 — 2016 GEOTECHNICAL OBSERVATION WELL LOCATION
- MW09 — 2016 RI LOT 1 MONITORING WELL LOCATION
- GW9A — 2015 PHASE II INVESTIGATION MONITORING WELL LOCATION

NOTES

1. BASEMAP REFERENCES: TOPOGRAPHIC, BOUNDARY AND UTILITY SURVEY PREPARED BY LANGAN, DATED 25 FEBRUARY 2011. AND ELEVATION SURVEY NO. 65178 PREPARED BY MONTROSE SURVEYING CO. LLP., DATED 26 JULY 2016.
2. ELEVATIONS SHOWN REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES (SGV) FOR DRINKING WATER (CLASS GA).
4. RESULTS ABOVE THE NYSDEC TOGS 1.1.1 SGV CLASS GA VALUES ARE BOLDED AND SHADED.
5. ONLY COMPOUNDS EXCEEDING THE TOGS SGVs ARE SHOWN.
6. NYSDEC TOGS 1.1.1 SGV FOR CLASS GA DRINKING WATER CRITERIA ARE SHOWN IN THE TABLE BELOW.
7. ALL UNITS ARE IN ug/L
8. VOCs = VOLATILE ORGANIC COMPOUNDS
9. SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
10. ug/L = MICROGRAMS PER LITER
11. LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID
12. RI = REMEDIAL INVESTIGATION
13. A GROUNDWATER SAMPLE WAS NOT COLLECTED FROM MW09 (LOT 62) DUE TO LNAPL IDENTIFIED IN THE MONITORING WELL.
14. D = RESULT IS FROM AN ANALYSIS THAT REQUIRED A DILUTION
15. J = THE ALALYTE WAS POSITIVELY IDENTIFIED AND THE ASSOCIATED NUMERICAL VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.
16. U = THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE LEVEL OF THE REPORTING LIMIT (RL) OR THE SAMPLE CONCENTRATION FOR RESULTS IMPACTED BY BLANK CONTAMINATION
17. NA = NOT ANALYZED

Analyte	NYSDEC SGVs
VOCs	
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,2-Dichlorobenzene	3
1,3,5-Trimethylbenzene	5
1,4-Dichlorobenzene	3
Benzene	1
Chlorobenzene	5
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
M,P-Xylene	5
n-Butylbenzene	5
n-Propylbenzene	5
o-Xylene	5
Sec-Butylbenzene	5
Toluene	5
Total Xylenes	5
SVOCs	
Benzo(a)anthracene	0.002
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Chrysene	0.002
Naphthalene	10
Metals - Dissolved	
Iron	300
Magnesium	35000
Manganese	300
Selenium	10
Sodium	20000
Metals - Total	
Iron	300
Magnesium	35000
Manganese	300
Sodium	20000

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

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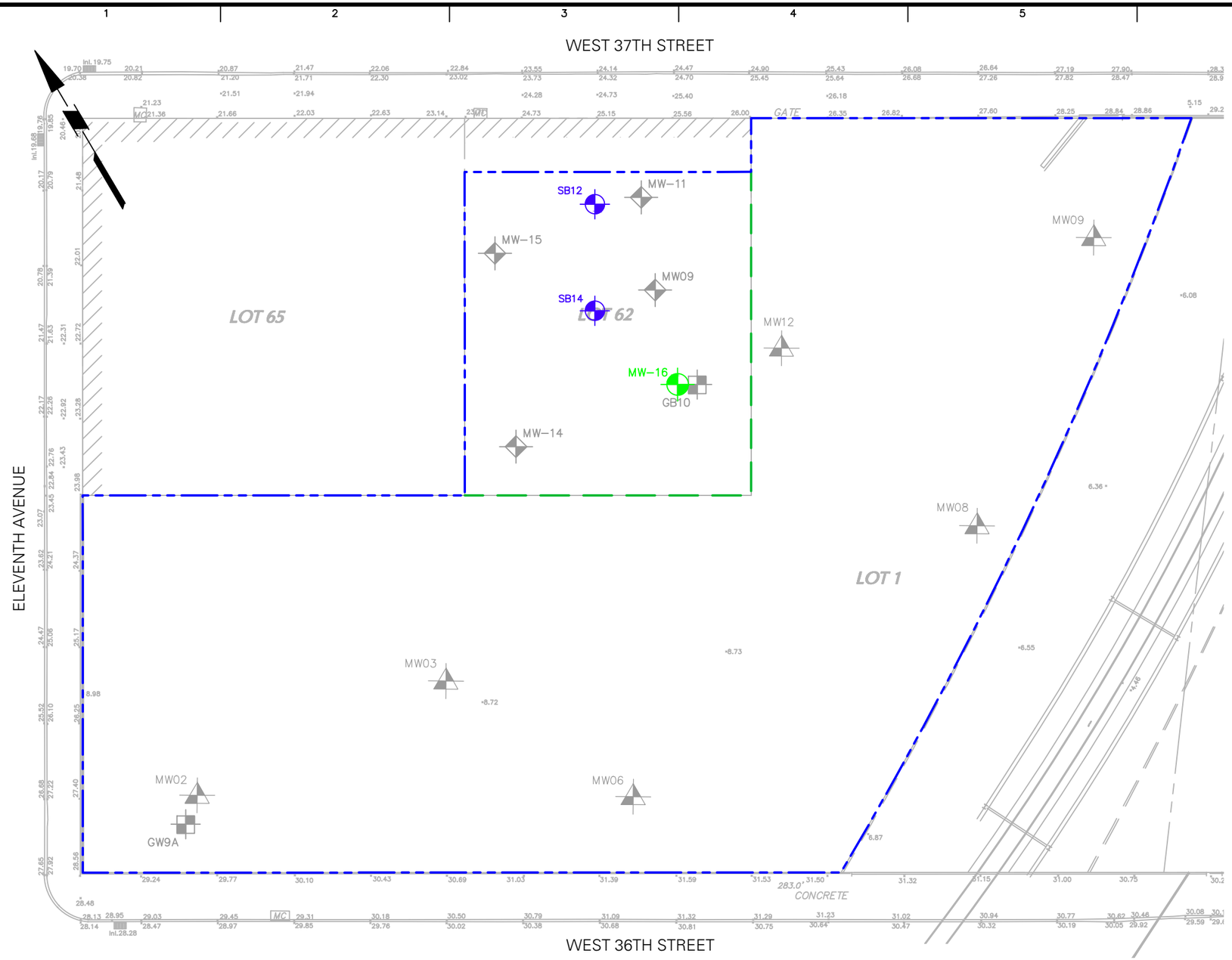
Project	438 ELEVENTH AVENUE BLOCK No. 708, LOT Nos. 1 AND 62 NEW YORK NEW YORK
Figure Title	HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP
Project No.	170395001
Date	5/3/2024
Drawn By	ER
Checked By	LE
Figure No.	2

Filename: \\langan.com\data\NYC\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 3 - Groundwater Sample Analytical Results Map - Copy.dwg Date: 9/13/2024 Time: 11:30 User: vkanagaratnam Style Table: Langan.stb Layout: Figure 2



LEGEND

- SITE BOUNDARY
- LOT 62/LOT 1 BOUNDARY
- SB–12 — 2017 RI SOIL BORINGS EXHIBITING FIELD AND/OR ANALYTICAL EVIDENCE OF PETROLEUM IMPACTS
- MW–16 — PROPOSED DELINEATION MONITORING WELL LOCATION
- MW09 — LOT 62 MONITORING WELL LOCATION
- MW09 — LOT 1 MONITORING WELL LOCATION
- GB10 — GEOTECHNICAL OBSERVATION WELL LOCATION

NOTES

1. BASEMAP REFERENCES: TOPOGRAPHIC, BOUNDARY AND UTILITY SURVEY PREPARED BY LANGAN, DATED 25 FEBRUARY 2011. AND ELEVATION SURVEY NO. 65178 PREPARED BY MONTROSE SURVEYING CO. LLP., DATED 26 JULY 2016.
2. ELEVATIONS SHOWN REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. RI = REMEDIAL INVESTIGATION
4. PROPOSED MONITORING WELL LOCATIONS ARE APPROXIMATE.

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LANGAN
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Project	438 ELEVENTH AVENUE BLOCK No. 708, LOT Nos. 1 AND 62 NEW YORK NEW YORK
Figure Title	PROPOSED DELINEATION MONITORING WELL LOCATION PLAN
Project No.	170395001
Date	5/3/2024
Drawn By	ER
Checked By	LE
Figure No.	3

Filename: \\langan.com\data\NY\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 3 - Groundwater Sample Analytical Results Map - Copy.dwg Date: 12/12/2024 Time: 09:27 User: vkanagaratnam Style Table: Langan.stb Layout: Figure 3

TABLE

Table 1
Remedial Design Work Plan
Soil and Groundwater Sample Summary
438 11th Avenue
New York, New York
NYSDEC BCP ID No. C231095
Langan Project No. 170395001

No.	Lot	Monitoring Well/ Soil Boring Location	Proposed Sample ID	Analyses
Groundwater Samples				
1	62	MW-09_62	MW09_62_DATE	Target Compound List (TCL)/Target Analyte List (TAL) VOCs, SVOCs, total petroleum hydrocarbon/gasoline range organics (TPH-GRO), total and dissolved iron, total and dissolved manganese, sulfate, and nitrate.
2		MW-11	MW11_DATE	
3	1	MW-12	MW12_DATE	
4	62	MW-14	MW14_DATE	
5		MW-15	MW15_DATE	
6			DUP01_DATE	
7		MW-16	MW16_DATE	
8	-	QA/QC	FB_01_DATE	
9			TB_01_DATE	TCL VOCs
10	62	MWXX	MWXX_DATE	Alkalinity, hardness, total organic carbon (TOC), biological oxygen demand (BOD), chemical oxygen demand (COD), total phosphorus, ammonia, total dissolved solids (TDS), and salinity
Soil Samples				
1	62	SBXX	SBXX_DATE	Diesel range/oil range organics (DRO) and (ORO), TPH, TOC, and TAL metals

Notes:
1. Monitoring wells will be sampled during two phases: 1) prior to the baildown test at MW09, and 2) following passive removal of LNAPL via absorbent socks
2. VOC = Volatile Organic Compound
3. SVOC = Semivolatile Organic Compound
4. PCB = Polychlorinated Biphenyl
5. bgs = below grade surface
6. QA/QC = Quality Assurance/Quality Control
7. FB = Field Blank
8. TB = Trip Blank
9. LNAPL = Light non-aqueous phase liquid