September 10, 2024

Ms. Marlen Salazar
New York State Department of Environmental Conservation (NYSDEC) Region 2
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY 11101

RE: Eighth Quarter Groundwater Monitoring Report
27-01 Jackson Avenue
Long Island City, New York
NYSDEC Order on Consent No. S241209
Langan Project No.: 170472002

Dear Ms. Salazar:

In accordance with the January 23, 2020 Off-Site In-Situ Treatment Remedial Design Plan (RDP) and the December 12, 2022 NYSDEC-approved Off-Site Site Management Plan (OSMP), Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) conducted groundwater sampling within the public right-of-way and sidewalks adjacent to the 27-01 Jackson Avenue site located in the Long Island City neighborhood of Queens, New York (Brownfield Cleanup Program [BCP] Site No. C241209). The south- and west-adjoining sidewalks are subject to the April 20, 2022 Order on Consent and Administrative Settlement (CO), Index No. S241209-08-09 and hereinafter referred to as the "CO site". A site location map is provided as Figure 1. This was the eighth quarterly sampling event completed following implementation of the off-site in-situ groundwater treatment program between October 20 and November 11, 2021.

Project Background

The CO site is an approximately 2,750-square-foot area that spans sections of the Jackson Avenue and 43rd Avenue sidewalks adjoining the BCP site located at 27-01 Jackson Avenue in the Long Island City neighborhood of Queens, New York (identified as Block 432, Lot 21 on the Queens County Tax Map). A site layout plan is presented on Figure 2.

Light non-aqueous phase liquid (LNAPL), and petroleum-impacted soil, groundwater, and soil vapor were identified on- and off-site during a Remedial Investigation (RI) and supplemental sampling events performed between October 2018 and July 2020. To address the impacts, NYSDEC approved the RDP and the Remedial Action Work Plan (RAWP) on January 23, 2020 and January 9, 2021, respectively. A Track 1 remedy was achieved at the BCP site and a certificate of completion (COC) was issued on December 23, 2022. Pursuant to the RAWP, a CO

was executed on April 20, 2022, which requires compliance with the NYSDEC-approved December 12, 2022 OSMP. The intent of the CO is to monitor off-site conditions in groundwater following off-site groundwater treatment and on-site dewatering. The OSMP addresses the means for implementing, monitoring, and reporting on the Engineering and Institutional Controls (ECs/ICs) that are required by the CO for the off-site areas adjacent to the BCP site.

In-Situ Groundwater Treatment

An off-site in-situ groundwater treatment program was implemented to treat remaining petroleum-related VOCs beneath the CO site, which were initially identified during the RI. Targeted petroleum-related VOCs included benzene, toluene, ethylbenzene, and xylenes (BTEX), and their breakdown products. Impacted groundwater was treated using an activated carbon solution (PetroFix™) via direct-push injection points located in a rough grid pattern to spread chemicals evenly within the off-site, south- and west-adjoining sidewalks comprising the CO site.

The injection program was carried out by Clean Harbors of Norwell, Massachusetts and Aquifer Drilling and Testing (ADT) of Mineola, New York, under the oversight of Langan, between October 20 and November 11, 2021. Injection point locations are shown on Figure 3. At each injection point, a hollow steel injection rod was advanced to depths ranging from about 15 to 30 feet below grade surface (bgs). Injections were made using a "bottom-up" approach, beginning at the deepest 2-foot interval, and raised from the bottom depth in 2-foot intervals to approximately 15 feet bgs. Approximately 14,400 pounds of Petrofix® and 720 pounds of electron acceptor blend were applied via direct-push drill rig between October 20 and November 11, 2021. Between 664 and 976 pounds of Petrofix® were applied to each point.

Performance Monitoring Methodology

The RDP and OSMP included baseline sampling and quarterly post-injection groundwater monitoring to evaluate the efficacy of the CO site remedy. Baseline groundwater sampling was conducted from existing monitoring wells MW-3 and MW-4 and temporary monitoring wells MW-1 and MW-2 on October 7 and 19, 2021. Monitoring wells MW-3 and MW-4 were compromised during installation of the support of excavation, and the four monitoring wells were reinstalled for post-remediation groundwater monitoring on August 22, 2022 and October 13 and 14, 2022. Post-injection monitoring well locations are shown on Figure 3.

Post-injection groundwater monitoring was not conducted between November 2021 and October 2022 due to remediation efforts and active dewatering at the BCP site. Eight post-injection quarterly sampling events have been completed at the CO site in October 2022, January 2023, April 2023, July 2023, October 2023, January 2024, April 2024, and July 2024.

Between the third and fourth quarter sampling events, monitoring well MW-3 was compromised during the installation of utilities beneath the 43rd Avenue sidewalk. Considering VOCs were non-detect in MW-3 during the previous three quarters of sampling, NYSDEC allowed the discontinuation of sampling of MW-3 via email correspondence on August 8th, 2023. The Fourth Quarter Groundwater Monitoring Report, dated September 15, 2023, indicated that VOCs were

also non-detect in monitoring well MW-4 during the previous four quarters; therefore, NYSDEC allowed the discontinuation of sampling of MW-4 via email correspondence on October 13th, 2023. NYSDEC correspondence is included as Attachment A.

Well Purging and Sampling

Monitoring well sampling was conducted for monitoring wells MW-1 and MW-2 on July 29, 2024. Before sampling, each well was purged using the low-flow method developed by the United States Environmental Protection Agency (USEPA) "Low-Flow [Minimal Drawdown] Ground-Water Sampling Procedures," EPA/540/S-95/504, April 1996) and accepted by the NYSDEC. purging was performed using a peristaltic pump fitted with dedicated tubing at each well. During purging, the turbidity, pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO) were monitored using a Horiba U-52 water quality meter with a flow-through cell. Purged groundwater was containerized in 55-gallon drums during each event. The daily site observation report is included in Attachment B. The groundwater quality parameters were recorded in the Well Purging and Sampling Logs provided in Attachment C.

As a general rule, groundwater was purged until water quality parameters stabilized, after an hour of continuous purging, or after three well volumes of groundwater had been removed from the well. Groundwater quality parameters stabilized in MW-2 prior to sampling, and a groundwater sample was collected from MW-1 after purging three well volumes.

After purging each well, a groundwater sample was collected directly from the pump discharge line using USEPA low-flow techniques. For quality assurance and quality control, one field blank sample and one duplicate sample were collected. A trip blank was included in each shipment for quality control during transport. All samples were analyzed for Part 375/Target Compound List (TCL) VOCs via USEPA SW-846 method 8260C by Alpha Analytical Laboratories, a NYSDOH Environmental Laboratory Approval Program (ELAP)-accredited laboratory in Westborough, Massachusetts.

The laboratory analytical results for the baseline sampling event, the previous quarterly sampling events, and the July 2024 sampling event are summarized in Table 1 and illustrated on Figure 4. The laboratory analytical report from the July 2024 sampling event is provided as Attachment D. Groundwater analytical results were compared to the NYSDEC Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA drinking water (herein collectively referenced as the NYSDEC SGVs). Analytical results from the first quarterly sampling event are discussed in the NYSDEC-approved December 2022 Final Engineering Report (FER), and analytical results from subsequent quarters are discussed in their respective quarterly monitoring reports.

July 2024 Performance Monitoring Analytical Results

Analytical results from the July 2024 performance monitoring are summarized as follows:

- MW-1: 1,2,4,5-Tetramethylbenzene was detected above the NYSDEC SGVs. In comparison to baseline analytical results, total VOC and total BTEX concentrations have decreased by 95% and 100%, respectively.
- MW-2: 1,2,4,5-Tetramethylbenzene, 1,2,4-trimethylbenzene, and n-propylbenzene were detected above the NYSDEC SGVs. In comparison to baseline analytical results, total VOC and total BTEX concentrations have decreased by 99.4% and 99.9%, respectively.

Three VOCs were detected above the NYSDEC SGVs in groundwater samples collected during the July 2024 monitoring event. Total VOC concentrations have decreased by over 95% (MW-1) and 99% (MW-2), and total BTEX concentrations have decreased by 100% (MW-1) and 99.9% (MW-2) when compared to baseline concentrations. In comparison to the seventh quarterly sampling event, analyte concentrations detected above the NYSDEC SGVs in MW-1 and MW-2 are within the same order of magnitude or one order of magnitude lower.

Analytical data are shown on Figure 4 and result trends are shown on Figure 5. Comparison of overall result trends for each monitoring well show a bulk reduction in petroleum-related VOCs to asymptotic levels over the course of the monitoring program. Based on the post-remedy sampling results and trends, the off-site remedy appears to have been effective; further decline of contaminant of concern concentrations is not anticipated.

Data Validation

A copy of the Analytical Services Protocol (ASP) Category B laboratory report was submitted to Langan's data validation department for review in accordance with the USEPA validation guidelines for organic and inorganic data. The data were found to be 100% acceptable. The Data Usability Summary Report (DUSR) is included in Attachment E.

Closure

Targeted petroleum-related VOC concentrations exceeded the NYSDEC SGVs in MW-1 and MW-2 but have been reduced by one to four orders of magnitude relative to baseline concentrations, indicating that bulk reduction has been observed. Based on the overall sampling event results trends, asymptotic levels have been achieved over the eight monitoring events, indicating that the off-site remedy has been effective. Further significant decline of concentrations of contaminants of concern is not anticipated; therefore, Langan requests discontinuation of groundwater monitoring at the CO site.

Should you have any questions, please call the undersigned at 212-479-5427.

Sincerely,

Langan Engineering, Environmental, Surveying Landscape Architecture and Geology, D.P.C.

Jason Hayes, P.E.
Principal/Vice President

Enclosures:

Figure 1	Site Location Map
Figure 2	Site Layout Plan
Figure 3	In-Situ Groundwater Treatment Injection Plan
Figure 4	Groundwater Sample Analytical Results
Figure 5	Groundwater Sample Analytical Results Trends
Table 1	Groundwater Sample Analytical Results
Attachment A	NYSDEC Correspondence for MW-3 and MW-4 Monitoring
Attachment B	Daily Site Observation Report
Attachment C	Well Purging and Sampling Logs
Attachment D	Laboratory Analytical Report
Attachment E	Data Usability Summary Report

TABLES

Table 1
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 4	Quarter 5	Quarter 5	Quarter 6	Quarter 7	Quarter 7	Quarter 8
			Location	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
			Sample Name	MW01_101921	MW-1_102122	MW-1_012623	MW-1_042623	MW-1_072723	DUP01_072723	MW-1_102323	DUP01_102323	MW-1_013124	MW-1_042524	DUP01_042524	MW-1_072924
			Sample Date	10/19/2021	10/21/2022	01/26/2023	04/26/2023	07/27/2023	07/27/2023	10/23/2023	10/23/2023	01/31/2024	04/25/2024	04/25/2024	07/29/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<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	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	**12**	1.9 J	**8.9**	1.7 J	<2 U	<2 U	**7.6**	**8.4**	**8**	**11**	**11**	**7.4**
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	**11**	0.77 J	0.74 J	<2.5 U	<2.5 U	<2.5 U	**7.2**	**7.5**	<2.5 U	2.6	2.6	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	**5**	ug/l	**7.8**	4	1.7 J	<2.5 U	<2.5 U	<2.5 U	**5.3**	**5.6**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	26	4	4.9	1.7 J	<2 U	<2 U	1.6 J	1.7 J	3.9	3.5	3.5	2.3
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	6.1	1.5 J	1.4 J	<2 U	<2 U	<2 U	4	4.3	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	4.5 J	25	<5 U	<5 U	2.5 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**17**	<0.5 U	0.22 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	1.2 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	1.4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	**5**	ug/l	**54**	<2.5 U	**5.4**	<2.5 U	<2.5 U	<2.5 U	4.7	5	1.9 J	1.5 J	1.5 J	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	**10**	<2.5 U	**9.1**	<2.5 U	<2.5 U	<2.5 U	3.9	4.2	**5.6**	2.1 J	2.1 J	<2.5 U
M,P-Xylene	179601-23-1	**5**	ug/l	**11**	1.3 J	0.88 J	<2.5 U	<2.5 U	<2.5 U	3.7	4	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	**10**	ug/l	3.4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.2 J	2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	**5**	ug/l	**5.6**	<2.5 U	2.2 J	<2.5 U	<2.5 U	<2.5 U	1.4 J	1.6 J	1.7 J	0.87 J	0.81 J	<2.5 U
n-Propylbenzene	103-65-1	**5**	ug/l	**17**	<2.5 U	**11**	<2.5 U	<2.5 U	<2.5 U	**7.1**	**7.7**	**5.7**	1.5 J	1.6 J	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	**5**	ug/l	**9.1**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.98 J	1 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	**5**	ug/l	4.6	<2.5 U	2.7	0.87 J	<2.5 U	<2.5 U	0.9 J	1 J	1.9 J	1.2 J	1.1 J	0.85 J
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	1.2 J	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	**5.3**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	**5**	ug/l	**20**	1.3 J	0.88 J	<2.5 U	<2.5 U	<2.5 U	4.7 J	5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U

Table 1
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Quarter 1	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 6	Quarter 7	Quarter 8	Quarter 8
			Location	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
			Sample Name	MW02_101921	MW-2_102022	DUP01_102022	MW-2_012623	MW-2_042623	MW-2_072723	MW-2_102323	MW-2_013124	DUP01_013124	MW-2_042524	MW-2_072924	DUP01_072924
			Sample Date	10/19/2021	10/20/2022	10/20/2022	01/26/2023	04/26/2023	07/27/2023	10/23/2023	01/31/2024	01/31/2024	04/25/2024	07/29/2024	07/29/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<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	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	**130**	1.4 J	4.2 J	<2 U	<2 U	2.6	**6.2**	**6.1 J**	1.3 J	**28**	**8.5**	**7**
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	**1,900**	**10 J**	**34 J**	**12**	**15**	**80**	**37**	**110 J**	**52 J**	**97**	**16**	**15**
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<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	<10 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	**5**	ug/l	**540**	3.5 J	**8 J**	2.5	2.4 J	**11**	2.5	**11 J**	**6.9 J**	3.2	0.79 J	0.72 J
1,3-Dichlorobenzene	541-73-1	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	270	<2 U	0.72 J	1.4 J	0.85 J	1.4 J	0.91 J	2.5	1.1 J	7	1.3 J	1.2 J
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<2,500 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	800	7.4 J	15 J	6.2	9.7	44	13	51 J	30 J	38	5.6	5.3
Acetone	67-64-1	**50**	ug/l	<50 U	**56**	**63**	4.4 J	12 J	37	3.8 J	<5 UJ	19 J	12	21 J	27 J
Acrylonitrile	107-13-1	5	ug/l	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**2.1 J**	0.69	0.35 J	0.51	0.82	0.6	<0.5 U	0.18 J	0.31 J	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<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	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	1.3 J	2.6 J	0.85 J	1.2 J	1.1 J	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<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	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<25 U	<2.5 U	0.7 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	1.2 J	<2.5 U	2 J	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<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	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	**5**	ug/l	**890**	**5.9**	4	**5.8**	**11**	**41**	3.2	**16**	**19**	**6.3**	1.2 J	1.1 J
Hexachlorobutadiene	87-68-3	0.5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	**190**	3	3.5	3.2	**5.2**	**22**	**8.3**	**26 J**	**18 J**	**17**	2.4 J	2.1 J
M,P-Xylene	179601-23-1	**5**	ug/l	**2,300**	**16**	**14**	**12**	**19**	**70**	2.3 J	**32**	**36**	2 J	1.1 J	0.92 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<50 U	<5 UJ	21 J	<5 U	<5 U	27	<5 U	<5 UJ	13 J	<5 U	4.6 J	4.7 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<50 U	1.5 J	<5 U	<5 U	1.7 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<25 U	1 J	<2.5 U	0.92 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.79 J	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	**10**	ug/l	**460 J**	<2.5 U	3	<2.5 U	<2.5 U	1.4 J	<2.5 U	1.6 J	0.86 J	1 J	0.96 J	0.87 J
n-Butylbenzene	104-51-8	**5**	ug/l	**25**	<2.5 U	0.93 J	<2.5 U	<2.5 U	0.7 J	<2.5 U	1.4 J	<2.5 U	3.2	0.94 J	0.91 J
n-Propylbenzene	103-65-1	**5**	ug/l	**370**	2.8 J	**5.7 J**	2.7	4.5	**23**	**9.5**	**37 J**	**19 J**	**40**	**6.5**	**6.1**
o-Xylene (1,2-Dimethylbenzene)	95-47-6	**5**	ug/l	**410**	2 J	1.9 J	1.5 J	2.1 J	**7.5**	<2.5 U	3.7	4.2	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	**5**	ug/l	**18 J**	<2.5 U	0.83 J	<2.5 U	<2.5 U	0.93 J	0.84 J	1.9 J	<2.5 U	3.5	0.92 J	0.86 J
Styrene	100-42-5	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	**130**	0.7 J	1 J	<2.5 U	0.79 J	1.2 J	<2.5 U	<2.5 U	0.74 J	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	**5**	ug/l	**2,700**	**18 J**	**16 J**	**14 J**	**21 J**	**78**	2.3 J	**36**	**40**	2 J	1.1 J	0.92 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<10 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U

Table 1
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Quarter 1	Quarter 2	Quarter 3	Quarter 3	Baseline	Baseline	Quarter 1	Quarter 2	Quarter 2	Quarter 3	Quarter 4
			Location	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
			Sample Name	MW03_100721	MW-3_102122	MW-3_012623	MW-3_042623	DUP01_042623	MW04_100721	GWDUP01_100721	MW-4_102122	MW-4_012623	DUP01_012623	MW-4_042623	MW-4_072723
			Sample Date	10/07/2021	10/21/2022	01/26/2023	04/26/2023	04/26/2023	10/07/2021	10/07/2021	10/21/2022	01/26/2023	01/26/2023	04/26/2023	07/27/2023
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<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	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	2	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	2.1 J	<2 U	<2 U	<2 U	<2 U	5.3	5.3 J	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	0.9 J	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	2.9 J	1.8 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Acrylonitrile	107-13-1	5	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	0.2 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	**5**	ug/l	4.8	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	3.8	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	**10**	ug/l	2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.95 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.88 J	0.87 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	**5**	ug/l	**9.4 J**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	3	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 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	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U

Table 1
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
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

FIGURES

LEGEND

APPROXIMATE SITE BOUNDARY

APPROXIMATE BOUNDARY OF BROWNFIELD CLEANUP PROGRAM SITE NO. C241209

1000 0 500 1000

SCALE: 1 INCH = 1000 FEET

NOTE: BASE MAP IS REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5 MINUTE SERIES CENTRAL PARK AND BROOKLYN QUADRANGLE MAPS, DATED 2019.

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Project	Figure Title	Project No.	Figure No.
27-01 JACKSON AVENUE BLOCK No. 4321, LOT No. 21 QUEENS NEW YORK	SITE LOCATION MAP	170472002	1
		Date 06/01/2022	
		Drawn By LH	
		Checked By KS	

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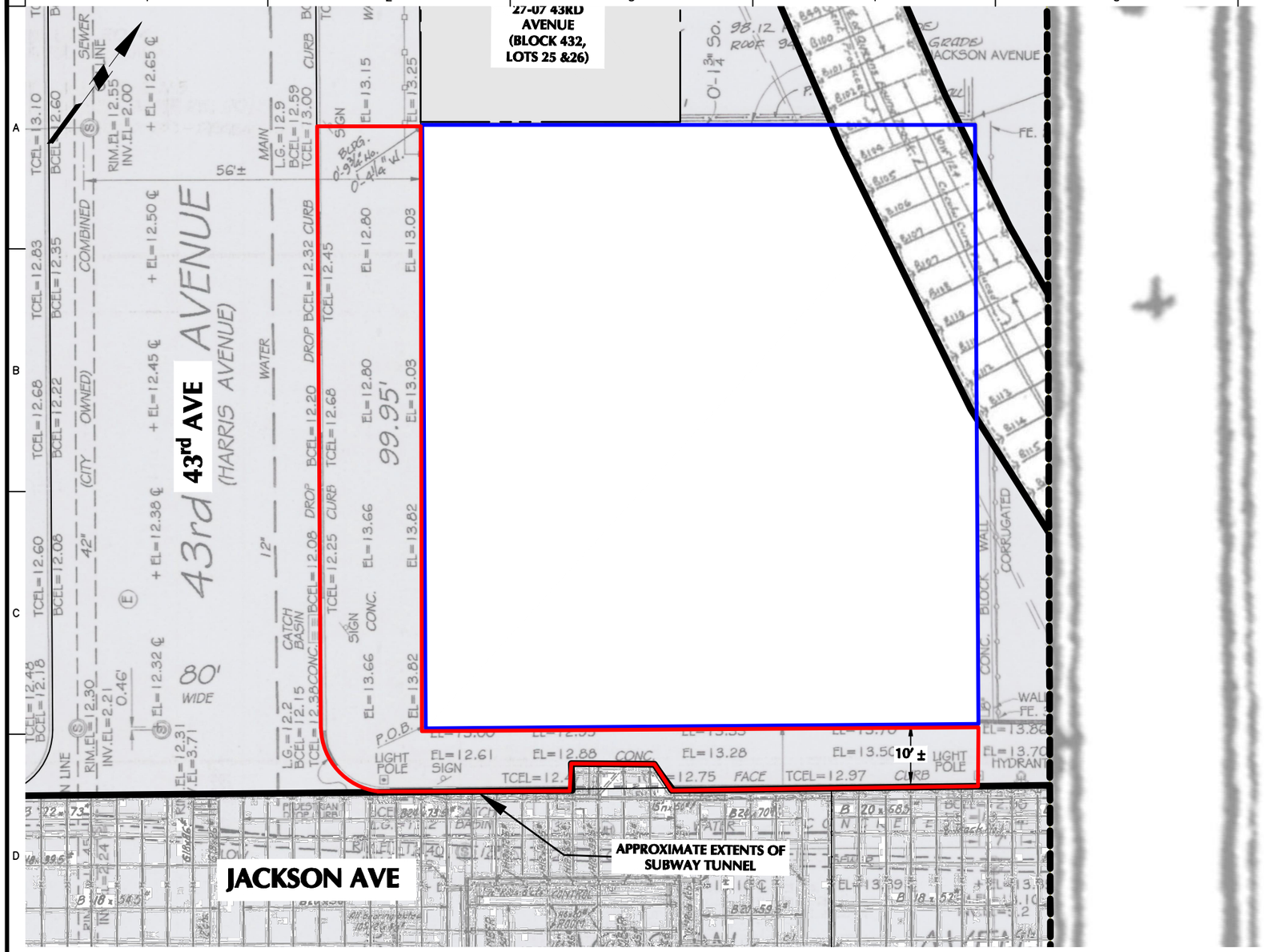
Filename: \\langan.com\data\NYC\data0\170472002\Project Data\CAD\02\SheetFiles\OSMP\Figure 1 - Site Location Map.dwg Date: 2/14/2023 Time: 22:25 User: lhaley Style Table: Langan.stb Layout: F1 - SITE LCO MAP



LEGEND

APPROXIMATE BOUNDARY OF BROWNFIELD CLEANUP PROGRAM SITE NO. C241209

APPROXIMATE SITE BOUNDARY

NOTES
1. BASEMAP TAKEN FROM HAYNES LAND SURVEYORS, DATED ON NOVEMBER 12, 2014.
2. SITE BOUNDARIES ARE APPROXIMATE

20 0 10 20
SCALE IN FEET

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Project
27-01 JACKSON AVENUE
BLOCK No. 432 LOT No. 21
QUEENS NEW YORK

Figure Title
SITE LAYOUT PLAN

Project No.	170472002
Date	07/06/2022
Drawn By	LH
Checked By	KS
Figure No.	2

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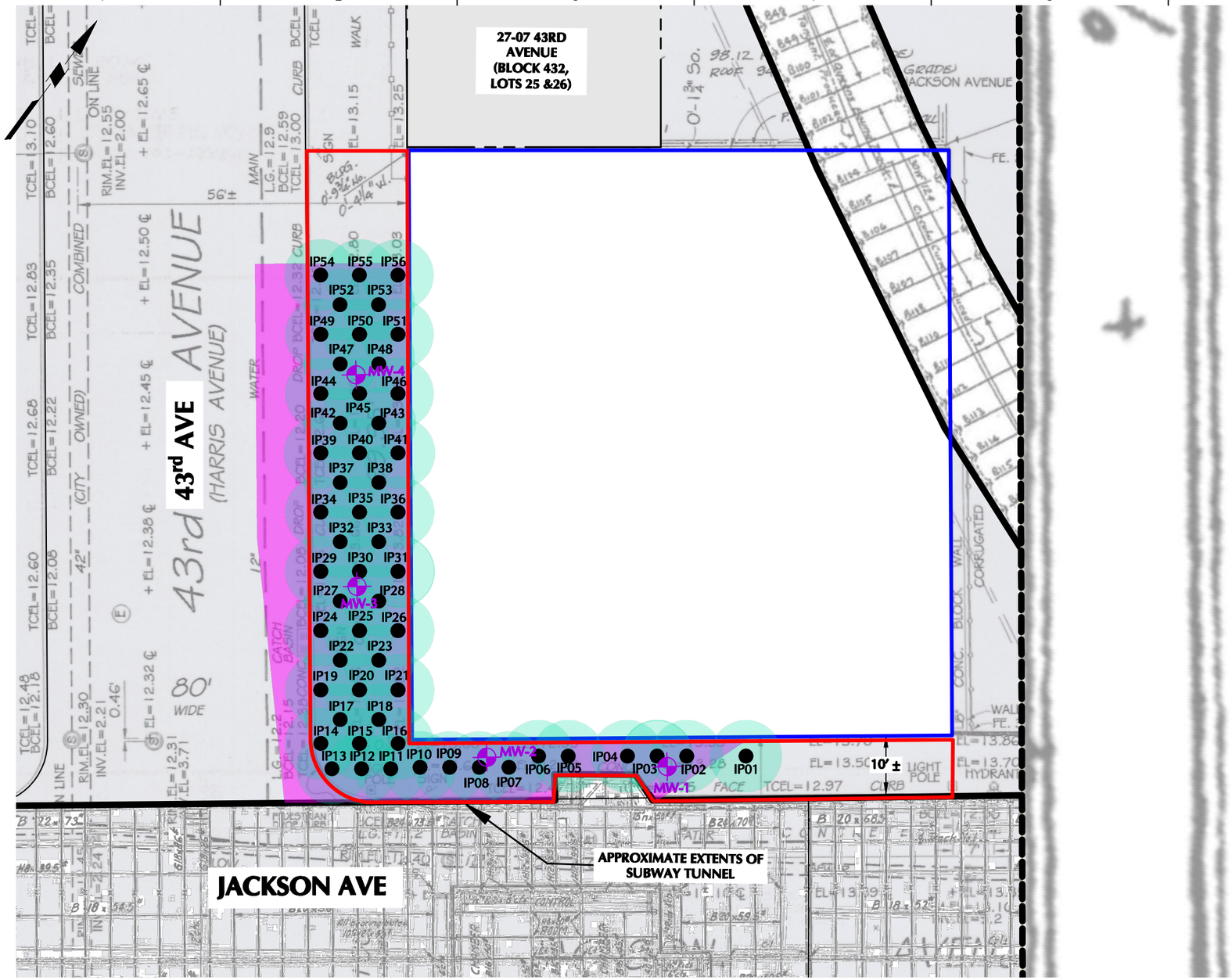
Filename: \\langan.com\data\NYC\data0\170472002\Project Data\CAD\02\SheetFiles\SMP\Figure 2 - Site Layout Plan.dwg Date: 7/6/2022 Time: 13:44 User: eseery Style Table: Langan.stb Layout: ANSIB-BL



LEGEND

- APPROXIMATE BOUNDARY OF BROWNFIELD CLEANUP PROGRAM SITE NO. C241209
- APPROXIMATE SITE BOUNDARY
- IP01 — INJECTION POINT LOCATION
- APPROXIMATE RADIUS OF INFLUENCE FOR PETROFIX
- APPROXIMATE EXTENT OF OFF-SITE PETROLEUM PLUME
- MW-1 — MONITORING WELL LOCATION

NOTES

1. BASEMAP TAKEN FROM HAYNES LAND SURVEYORS, DATED NOVEMBER 12, 2014.
2. INJECTIONS WERE COMPLETED BETWEEN OCTOBER 20, 2021 AND NOVEMBER 11, 2021.
3. RADIUS OF INFLUENCE CALCULATIONS WERE DETERMINED IN CONSULTATION WITH REMEDIAL CHEMICAL MANUFACTURERS BASED ON SUBSURFACE CONDITIONS AND CONTAMINANT CONCENTRATIONS ENCOUNTERED DURING THE REMEDIAL INVESTIGATION CONDUCTED BY LANGAN.
4. ALL INJECTION AND MONITORING WELL LOCATIONS ARE APPROXIMATE.
5. ELEVATIONS (EL.) ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1983 (NAVD83).

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.

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Project	Figure Title	Project No.	Figure No.
27-01 JACKSON AVENUE BLOCK No. 432 LOT No. 21 QUEENS NEW YORK	IN-SITU GROUNDWATER TREATMENT INJECTION PLAN	170472002	3
		Date 11/17/2022	
		Drawn By LH	
		Checked By KS	

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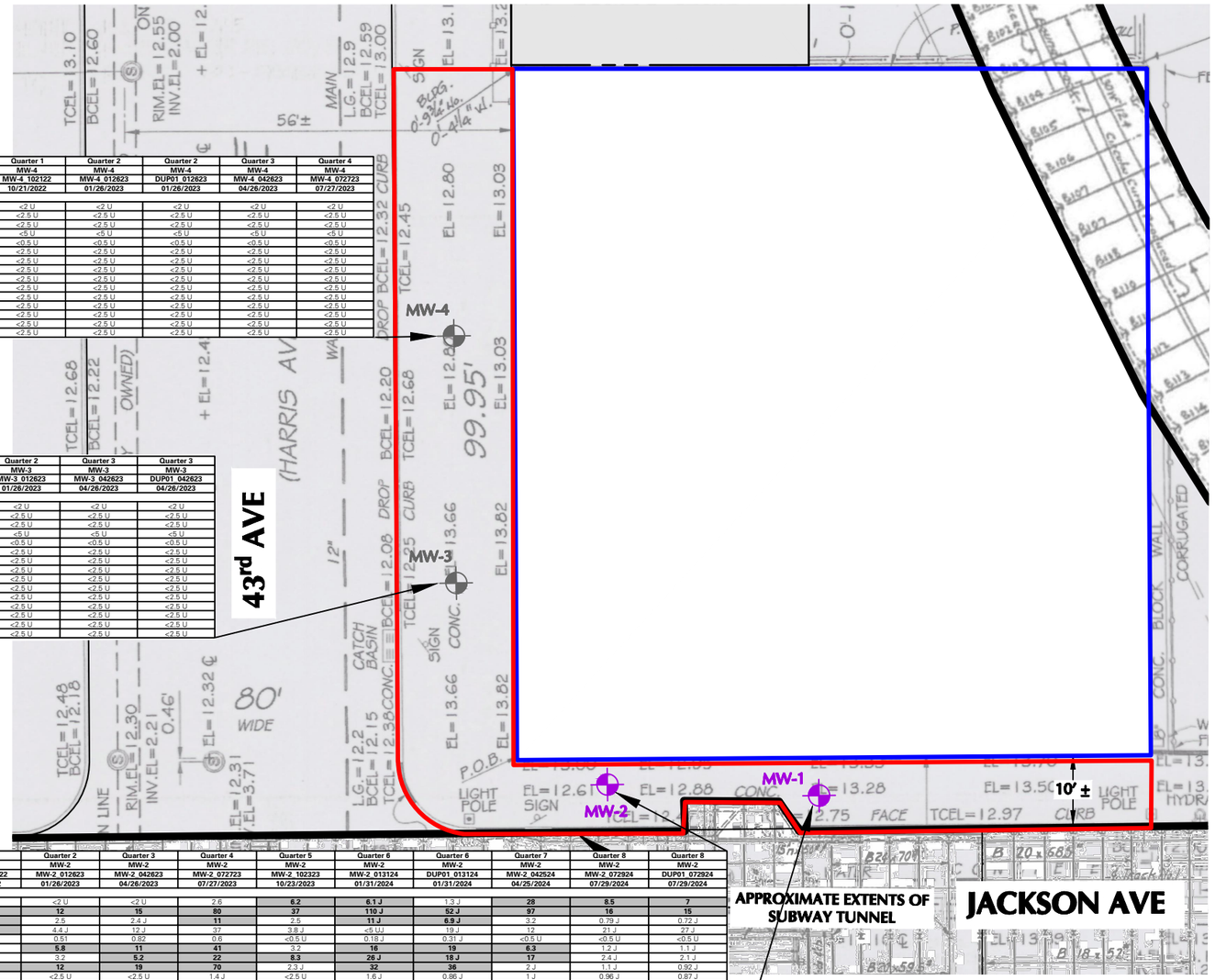
Filename: \\langan.com\data\NYC\data0\170472002\Project Data\CAD\02\SheetFiles\OSMP\Figure 3 - In-Situ Groundwater Treatment Injection Plan.dwg Date: 11/17/2022 Time: 22:22 User: lhaley Style Table: Langan.stb Layout: ANSIB-BL



Sampling Event	Baseline	Baseline	Quarter 1	Quarter 2	Quarter 2	Quarter 3	Quarter 4
Location	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Name	MW04_100721	GWDUP01_100721	MW-4_102122	MW-4_012623	DUP01_012623	MW-4_042623	MW-4_072723
Sample Date	10/07/2021	10/07/2021	10/21/2022	01/26/2023	01/26/2023	04/26/2023	07/27/2023
VOCs							
1,2,4,5-Tetramethylbenzene	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trimethylbenzene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Acetone	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	0.17 J	0.2 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Ethylbenzene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	0.96 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	0.88 J	0.87 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	3	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Toluene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U

Sampling Event	Baseline	Quarter 1	Quarter 2	Quarter 3	Quarter 3
Location	MW-3	MW-3	MW-3	MW-3	MW-3
Sample Name	MW03_100721	MW-3_102122	MW-3_012623	MW-3_042623	DUP01_042623
Sample Date	10/07/2021	10/21/2022	01/26/2023	04/26/2023	04/26/2023
VOCs					
1,2,4,5-Tetramethylbenzene	2	<2 U	<2 U	<2 U	<2 U
1,2,4-Trimethylbenzene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Acetone	2.9 J	1.8 J	<5 U	<5 U	<5 U
Benzene	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Ethylbenzene	4.8	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	3.8	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	**9.4 J**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Toluene	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U

Sampling Event	Baseline	Quarter 1	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 6	Quarter 7	Quarter 8	Quarter 8
Location	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
Sample Name	MW02_101921	MW-2_102022	DUP01_102022	MW-2_012623	MW-2_042623	MW-2_072723	MW-2_102323	MW-2_013124	DUP01_013124	MW-2_042524	MW-2_072924	DUP01_072924
Sample Date	10/19/2021	10/20/2022	10/20/2022	01/26/2023	04/26/2023	07/27/2023	10/23/2023	01/31/2024	01/31/2024	04/25/2024	07/29/2024	07/29/2024
VOCs												
1,2,4,5-Tetramethylbenzene	**130**	1.4 J	4.2 J	<2 U	<2 U	2.6	**6.2**	**6.1 J**	1.3 J	**28**	**8.5**	**7**
1,2,4-Trimethylbenzene	**1,900**	**10 J**	**34 J**	**12**	**15**	**80**	**37**	**110 J**	**52 J**	**97**	**16**	**15**
1,3,5-Trimethylbenzene (Mesitylene)	**540**	3.5 J	**8 J**	2.5	2.4 J	**11**	2.5	**11 J**	**6.9 J**	3.2	0.79 J	0.72 J
Acetone	<50 U	**56**	**63**	4.4 J	12 J	37	3.8 J	<5 UJ	19 J	12	21 J	27 J
Benzene	**2.1 J**	0.69	0.35 J	0.51	0.82	0.6	<0.5 U	0.18 J	0.31 J	<0.5 U	<0.5 U	<0.5 U
Ethylbenzene	**890**	**5.9**	4	**5.8**	**11**	**41**	3.2	**16**	**19**	**6.3**	1.2 J	1.1 J
Isopropylbenzene (Cumene)	**190**	3	3.5	3.2	**5.2**	**22**	**8.3**	**26 J**	**18 J**	**17**	2.4 J	2.1 J
M,P-Xylene	**2,300**	**16**	**14**	**12**	**19**	**70**	2.3 J	**32**	**36**	2 J	1.1 J	0.92 J
Naphthalene	**460 J**	<2.5 U	3	<2.5 U	<2.5 U	1.4 J	<2.5 U	1.6 J	0.86 J	1 J	0.96 J	0.87 J
n-Butylbenzene	**25**	<2.5 U	0.93 J	<2.5 U	<2.5 U	0.7 J	<2.5 U	1.4 J	<2.5 U	3.2	0.94 J	0.91 J
n-Propylbenzene	**370**	2.8 J	**5.7 J**	2.7	4.5	**23**	**9.5**	**37 J**	**19 J**	**40**	**6.5**	**6.1**
o-Xylene (1,2-Dimethylbenzene)	**410**	2 J	1.9 J	1.5 J	2.1 J	**7.5**	<2.5 U	3.7	4.2	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	**18 J**	<2.5 U	0.83 J	<2.5 U	<2.5 U	0.93 J	0.84 J	1.9 J	<2.5 U	3.5	0.92 J	0.86 J
Toluene	**130**	0.7 J	1 J	<2.5 U	<2.5 U	0.79 J	1.2 J	<2.5 U	0.74 J	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	**2,700**	**18 J**	**16 J**	**14 J**	**21 J**	**78**	2.3 J	**36**	**40**	2 J	1.1 J	0.92 J

Sampling Event	Baseline	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 4	Quarter 5	Quarter 5	Quarter 6	Quarter 7	Quarter 7	Quarter 8
Location	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Name	MW01_101921	MW-1_102122	MW-1_012623	MW-1_042623	MW-1_072723	DUP01_072723	MW-1_102323	DUP01_102323	MW-1_013124	MW-1_042524	DUP01_042524	MW-1_072924
Sample Date	10/19/2021	10/21/2022	01/26/2023	04/26/2023	07/27/2023	07/27/2023	10/23/2023	10/23/2023	01/31/2024	04/25/2024	04/25/2024	07/29/2024
VOCs												
1,2,4,5-Tetramethylbenzene	**12**	1.9 J	**8.9**	1.7 J	<2 U	<2 U	**7.6**	**8.4**	**8**	**11**	**11**	**7.4**
1,2,4-Trimethylbenzene	**11**	0.77 J	0.74 J	<2.5 U	<2.5 U	<2.5 U	**7.2**	**7.5**	<2.5 U	2.6	2.6	<2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	**7.8**	4	1.7 J	<2.5 U	<2.5 U	<2.5 U	**5.3**	**5.6**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Acetone	4.5 J	25	<5 U	<5 U	2.5 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	**17**	<0.5 U	0.22 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Ethylbenzene	**54**	<2.5 U	**5.4**	<2.5 U	<2.5 U	<2.5 U	4.7	5	1.9 J	1.5 J	1.5 J	<2.5 U
Isopropylbenzene (Cumene)	**10**	<2.5 U	**9.1**	<2.5 U	<2.5 U	<2.5 U	3.9	4.2	**5.6**	2.1 J	2.1 J	<2.5 U
M,P-Xylene	**11**	1.3 J	0.88 J	<2.5 U	<2.5 U	<2.5 U	3.7	4	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	3.4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.2 J	2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	**5.6**	<2.5 U	2.2 J	<2.5 U	<2.5 U	<2.5 U	1.4 J	1.6 J	1.7 J	0.87 J	0.81 J	<2.5 U
n-Propylbenzene	**17**	<2.5 U	**11**	<2.5 U	<2.5 U	<2.5 U	**7.1**	**7.7**	**5.7**	1.5 J	1.6 J	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	**9.1**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.98 J	1 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	4.6	<2.5 U	2.7	0.87 J	<2.5 U	<2.5 U	0.9 J	1 J	1.9 J	1.2 J	1.1 J	0.85 J
Toluene	**5.3**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	**20**	1.3 J	0.88 J	<2.5 U	<2.5 U	<2.5 U	4.7 J	5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U

LEGEND

APPROXIMATE BOUNDARY OF BROWNFIELD CLEANUP PROGRAM SITE NO. C241209

APPROXIMATE SITE BOUNDARY

MW-3 — MONITORING WELL LOCATION (GROUNDWATER SAMPLING DISCONTINUED 2023)

MW-1 — MONITORING WELL LOCATION

Analyte	NYSDEC SGVs
VOCs	
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,3,5-Trimethylbenzene (Mesitylene)	5
Acetone	50
Benzene	1
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
M,P-Xylene	5
Naphthalene	10
n-Butylbenzene	5
n-Propylbenzene	5
o-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
Toluene	5
Total Xylenes	5

NOTES

1. BASEMAP TAKEN FROM HAYNES LAND SURVEYORS, DATED ON NOVEMBER 12, 2014.
2. ALL LOCATIONS ARE APPROXIMATE.
3. THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) ALLOWED THE DISCONTINUATION OF GROUNDWATER SAMPLING AT MONITORING WELLS MW-3 AND MW-4 VIA EMAIL CORRESPONDENCE ON AUGUST 8 AND OCTOBER 13, 2023.
4. GROUNDWATER 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 (SGVs) FOR CLASS GA GROUNDWATER.
5. ONLY COMPOUNDS EXCEEDING COMPARISON CRITERIA ARE SHOWN.
6. RESULTS ABOVE NYSDEC SGVs ARE SHADED AND BOLDED.
7. RESULTS ARE SHOWN IN MICROGRAMS PER LITER (µg/L).
8. J= THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT, BUT BELOW THE REPORTING LIMIT (RL); THE RESULT IS AN ESTIMATED CONCENTRATION.
9. U = THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE RL; THE VALUE SHOWN IN THE TABLE IS THE RL.

20 0 10 20

SCALE IN FEET

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Project: 27-01 JACKSON AVENUE
BLOCK No. 432 LOT No. 21
QUEENS NEW YORK

Figure Title: GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP

Project No. 170472002
Date 08/26/2024
Drawn By LH
Checked By KS
Figure No. 4

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Figure 5
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results Trends

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

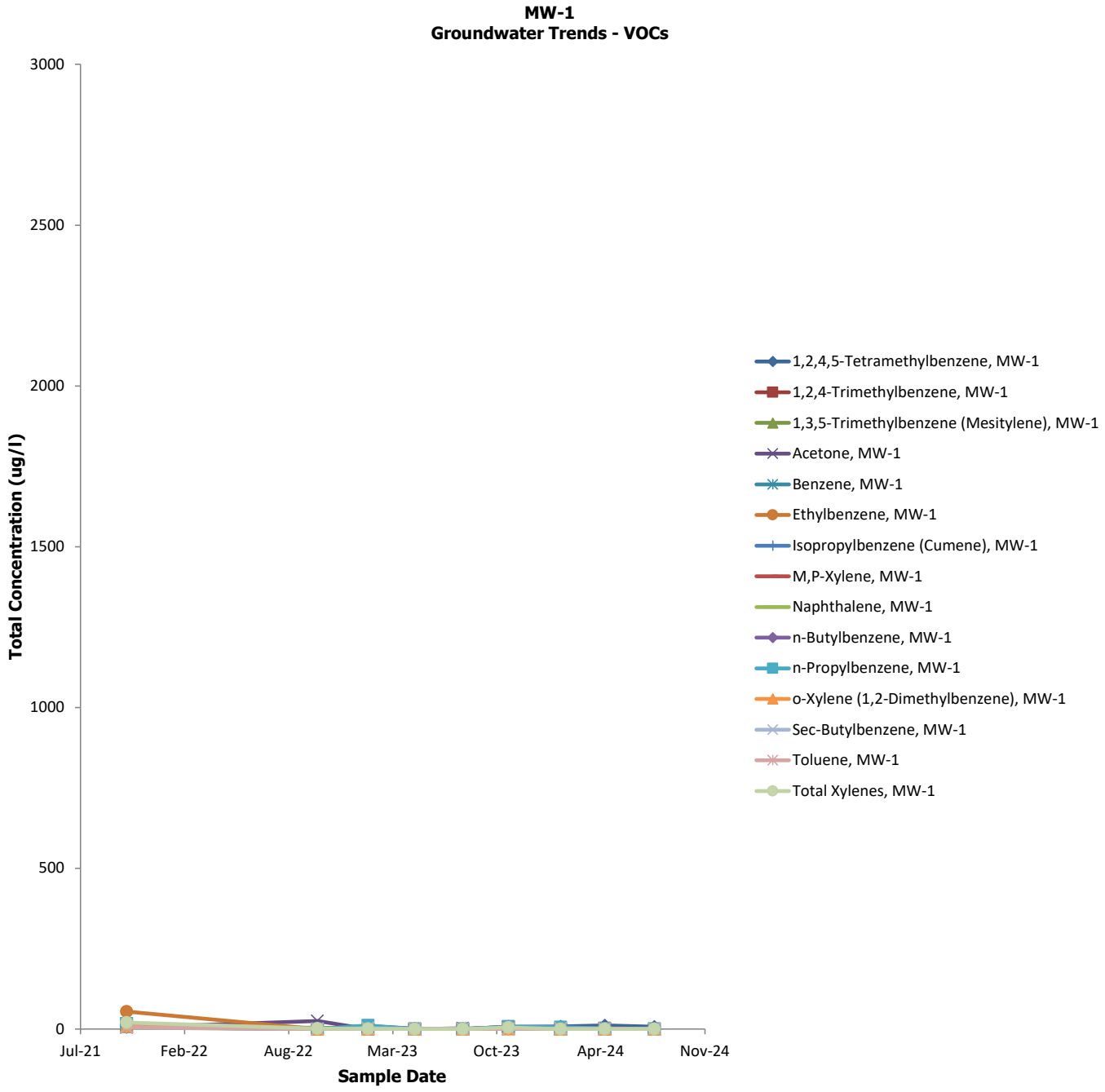


Figure 5
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results Trends

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

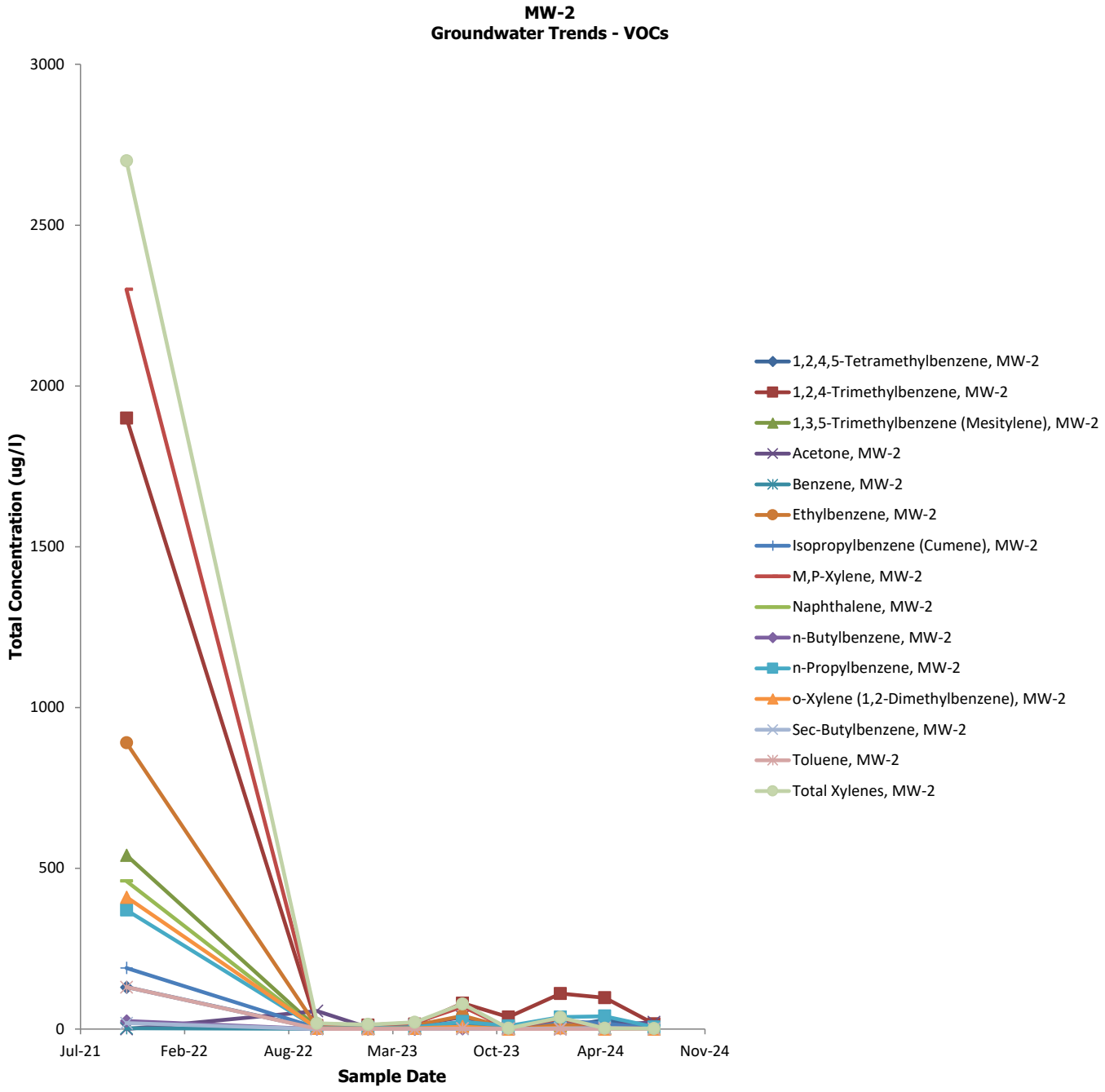


Figure 5
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results Trends

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002

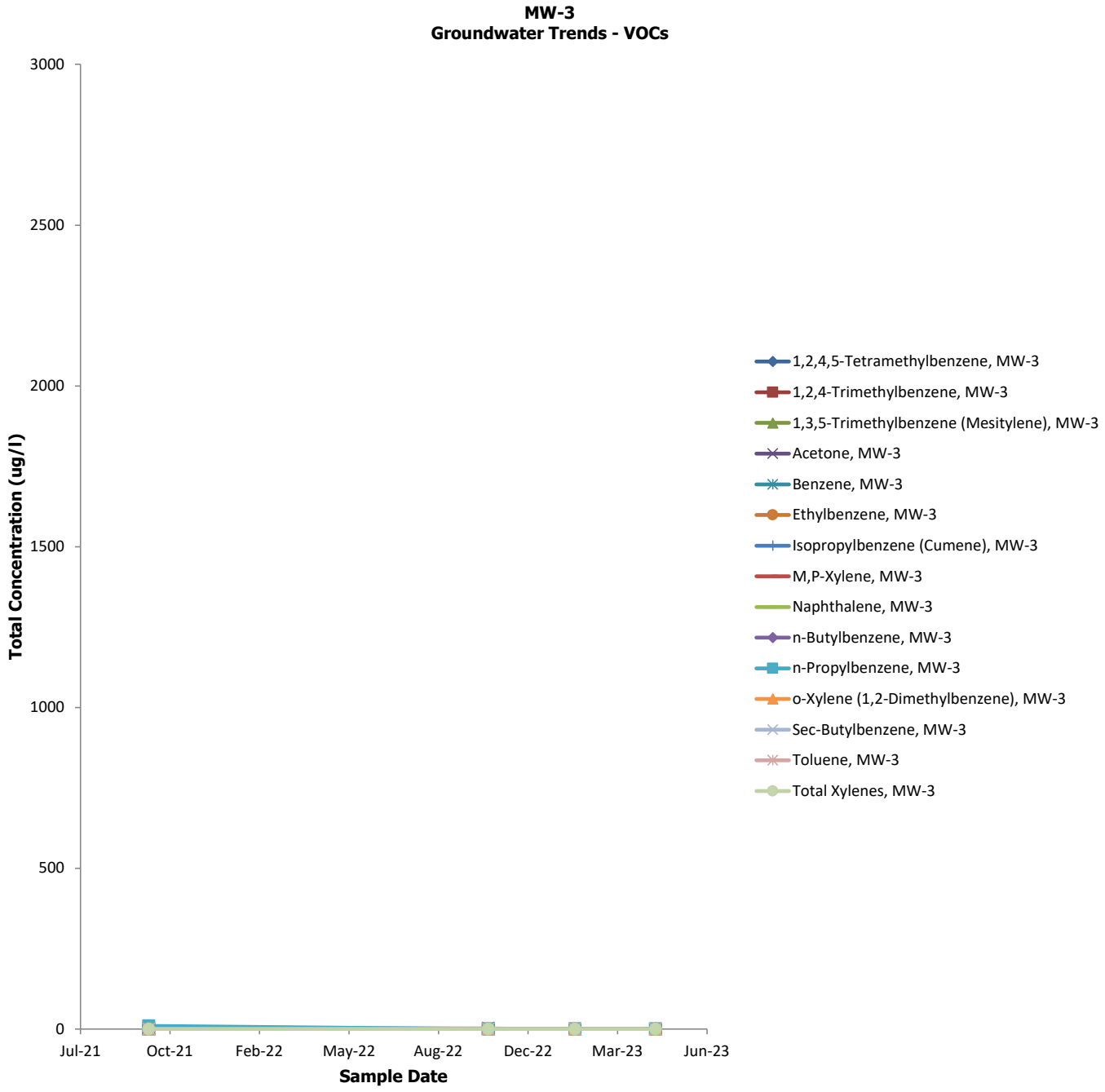
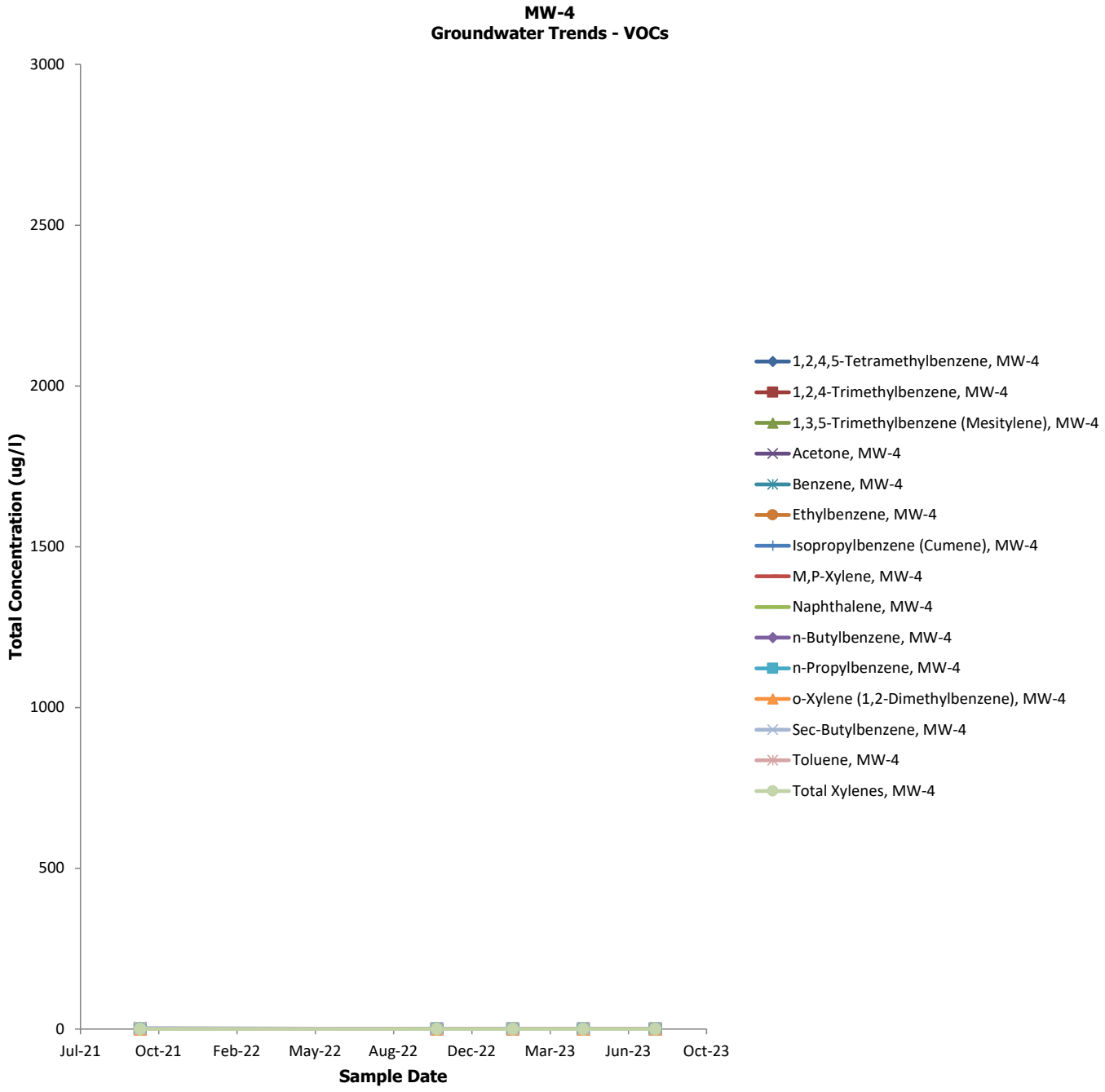


Figure 5
Quarterly Groundwater Monitoring Report
Groundwater Sample Analytical Results Trends

27-01 Jackson Avenue
Long Island City, New York
NYSDEC BCP Site No.: C241209
Langan Project No.: 170472002



ATTACHMENT A

NYSDEC Correspondence for MW-3 and MW-4 Monitoring

Ali Reach

To: Lexi Haley
Subject: RE: 27-01 Jackson Avenue Off-site (S241209) - Off-Site Well Monitoring Program Meeting

---

From: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Sent: Tuesday, August 8, 2023 10:30 AM
To: Lexi Haley <lhaley@langan.com>
Cc: Brian Gochenaur <bgochenaur@Langan.com>; Obligado, Andre A (DEC) <andre.obligado@dec.ny.gov>; Kenney, Julia M (HEALTH) <julia.kenney@health.ny.gov>
Subject: [External] RE: 27-01 Jackson Avenue Off-site (S241209) - Off-Site Well Monitoring Program Meeting

Lexi:
As discussed during our telecon last Friday 8/5 this change in sampling protocol for the 27-01 Jackson Avenue Off-site site S241209 is acceptable. There is no need to replace MW-3.

Thanks,

Shaun

Shaun Bollers
Assistant Environmental Engineer, Division of Environmental Remediation
New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4096 | F: (718) 482-6358 | shaun.bollers@dec.ny.gov

www.dec.ny.gov | |

NEW YORK STATE | Department of Environmental Conservation

From: Lexi Haley <lhaley@langan.com>
Sent: Tuesday, August 8, 2023 9:34 AM
To: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Cc: Brian Gochenaur <bgochenaur@Langan.com>
Subject: RE: 27-01 Jackson Avenue (C241209) - Off-Site Well Monitoring Program Meeting

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Shaun,

As discussed during our call on Friday, monitoring well MW-3 (located along 43rd Avenue) was destroyed during installation of utilities beneath the sidewalk and was not able to be sampled from during the Q4 event. In

the previous three quarters of groundwater monitoring, VOC concentrations were non-detect in samples collected from MW-3. As such, we are requesting to stop monitoring at MW-3.

We will continue to monitor VOC concentrations in groundwater from monitoring wells MW-1, MW-2, and MW-4 on a quarterly basis.

Thank you,

Lexi Haley
Senior Staff Engineer

LANGAN

Direct: 212.479.5499 x5656
Mobile: 332.208.2127
File Sharing Link
www.langan.com

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From: Lexi Haley
Sent: Tuesday, August 1, 2023 2:13 PM
To: 'Bollers, Shaun (DEC)' <shaun.bollers@dec.ny.gov>
Cc: Brian Gochenaur <bgochenaur@Langan.com>
Subject: RE: 27-01 Jackson Avenue (C241209) - Off-Site Well Monitoring Program Meeting

Thanks Shaun – I will send out the meeting invite for Friday.

Lexi Haley
Senior Staff Engineer

LANGAN

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From: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Sent: Tuesday, August 1, 2023 2:00 PM

To: Lexi Haley <lhaley@langan.com>
Cc: Brian Gochenaur <bgochenaur@Langan.com>
Subject: [External] RE: 27-01 Jackson Avenue (C241209) - Off-Site Well Monitoring Program Meeting

Hi Lexy:
Friday 8/4 would be fine.

Shaun

Shaun Bollers
Assistant Environmental Engineer, Division of Environmental Remediation
New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4096 | F: (718) 482-6358 | shaun.bollers@dec.ny.gov

www.dec.ny.gov | |

NEW YORK STATE | Department of Environmental Conservation

From: Lexi Haley <lhaley@langan.com>
Sent: Tuesday, August 1, 2023 11:38 AM
To: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Cc: Brian Gochenaur <bgochenaur@Langan.com>
Subject: 27-01 Jackson Avenue (C241209) - Off-Site Well Monitoring Program Meeting

Hi

Good morning Shaun,

Brian and I would like to set up a call with you to discuss the off-site well monitoring program at 27-01 Jackson Avenue (BCP Site No. C241209). We are available between 12 pm and 2:30 pm on Thursday (8/3) and between 11 am and 12 pm on Friday (8/4). Do either of these time slots work for you? If not, we can schedule something for next week.

Thank you,

Lexi Haley
Senior Staff Engineer

LANGAN

Direct: 212.479.5499 x5656
Mobile: 332.208.2127
File Sharing Link

Phone: 212.479.5400 Fax: 212.479.5444
360 West 31st Street
8th Floor
New York, NY 10001-2727
www.langan.com

Caroline Devin

From: Caroline Devin
Sent: Wednesday, November 8, 2023 5:18 PM
To: Caroline Devin
Subject: FW: 27-01 Jackson Avenue (C241209) - Q4 Off-Site Quarterly GW Monitoring Report

---

From: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Sent: Friday, October 13, 2023 10:10 AM
To: Lexi Haley <lhaley@langan.com>
Cc: Kimberly Semon <ksemon@langan.com>; Obligado, Andre A (DEC) <andre.obligado@dec.ny.gov>
Subject: [External] RE: 27-01 Jackson Avenue (C241209) - Q4 Off-Site Quarterly GW Monitoring Report

Good Morning Lexi:
NYSDEC has no objections to this change in the sampling protocol as the MW-4 groundwater samples have shown non-detect for 4 consecutive quarters.

BTW How far has the on-site construction progressed?

Regards,
Shaun

Shaun Bollers
Assistant Environmental Engineer, Division of Environmental Remediation
New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4096 | F: (718) 482-6358 | shaun.bollers@dec.ny.gov

www.dec.ny.gov | |

NEW YORK STATE | Department of Environmental Conservation

From: Lexi Haley <lhaley@langan.com>
Sent: Wednesday, October 11, 2023 3:12 PM
To: Bollers, Shaun (DEC) <shaun.bollers@dec.ny.gov>
Cc: Kimberly Semon <ksemon@langan.com>
Subject: RE: 27-01 Jackson Avenue (C241209) - Q4 Off-Site Quarterly GW Monitoring Report

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Good afternoon Shaun,

I hope you are doing well!

We are planning to schedule the next quarterly sampling event at 27-01 Jackson Avenue for the week of October 23rd. As noted in the Q4 Off-Site Quarterly GW Monitoring Report, groundwater results from MW-4

have been non-detect for consecutive quarters and we are requesting to conduct further monitoring only in MW-1 and MW-2.

Please let us know if you have any objections to this plan.

Thank you,

Lexi Haley
Senior Staff Engineer

LANGAN

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ATHENS CALGARY DUBAI LONDON PANAMA

From: Lexi Haley
Sent: Friday, September 15, 2023 1:58 PM
To: 'Bollers, Shaun (DEC)' <shaun.bollers@dec.ny.gov>
Cc: Brian Gochenaur <bgochenaur@Langan.com>
Subject: 27-01 Jackson Avenue (C241209) - Q4 Off-Site Quarterly GW Monitoring Report

Good afternoon Shaun,

Please see below for a link to the quarterly sampling report for 27-01 Jackson Avenue. Please note that, since groundwater results from MW-4 have been non-detect for consecutive quarters, we are requesting to conduct further monitoring only in MW-1 and MW-2.

https://clients.langan.com/Sharing/filesharing/ViewPosted?transactionHash=1122680310

Let us know if you have any questions.

Have a great weekend,

Lexi Haley
Senior Staff Engineer

LANGAN

Direct: 212.479.5499 x5656
Mobile: 332.208.2127
File Sharing Link

Phone: 212.479.5400 Fax: 212.479.5444
360 West 31st Street
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ATTACHMENT B

Daily Site Observation Report

LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170472002 **PROJECT:** 27-01 Jackson Avenue **LOCATION:** Long Island City, NY	**CLIENT:** 2701 Jackson Avenue LLC	**DATE:** 07/29/24
CONTRACTOR: Lions Group NYC		**LANGAN REP. :** Ali Reach
CONTRACTOR'S EQUIPMENT: N/A	**PRESENT AT SITE:** Ali Reach and Mike Pinnella – Langan Michael Capozzoli– Lions Group NYC (Construction Manager)	

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to observe environmental protocols in accordance with the January 2021 NYSDEC approved Off-Site Site Management Plan (OSMP) for BCP site C241209 at 27-01 Jackson Avenue (Block 432, Lot 21). Observed activities were as follows:

Site Activities

- Langan used a peristaltic pump to purge and sample groundwater monitoring wells MW-1 and MW-2 along the Jackson Avenue sidewalk. Purged groundwater was screened for odors, sheen, and organic vapors using a photoionization detector (PID). Odors, sheen or PID readings above background levels were not observed in MW-2. A maximum PID reading of 147.0 parts per million (ppm) was detected beneath the well cap at MW-1; however, no odors or sheen was observed in the purged groundwater. Purged groundwater was containerized in a 55-gallon New York State Department of Transportation (NYSDOT)-approved drum for future disposal.

Sampling

- Langan collected two groundwater samples (plus quality assurance/quality control [QA/QC] samples) for laboratory analysis of NYSDEC Part 375/target compound list (TCL) volatile organic compounds (VOCs). The samples were submitted to Alpha Analytical Inc. (Alpha) of Mahwah, New Jersey, a New York State Department of Health (NYSDOH) Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

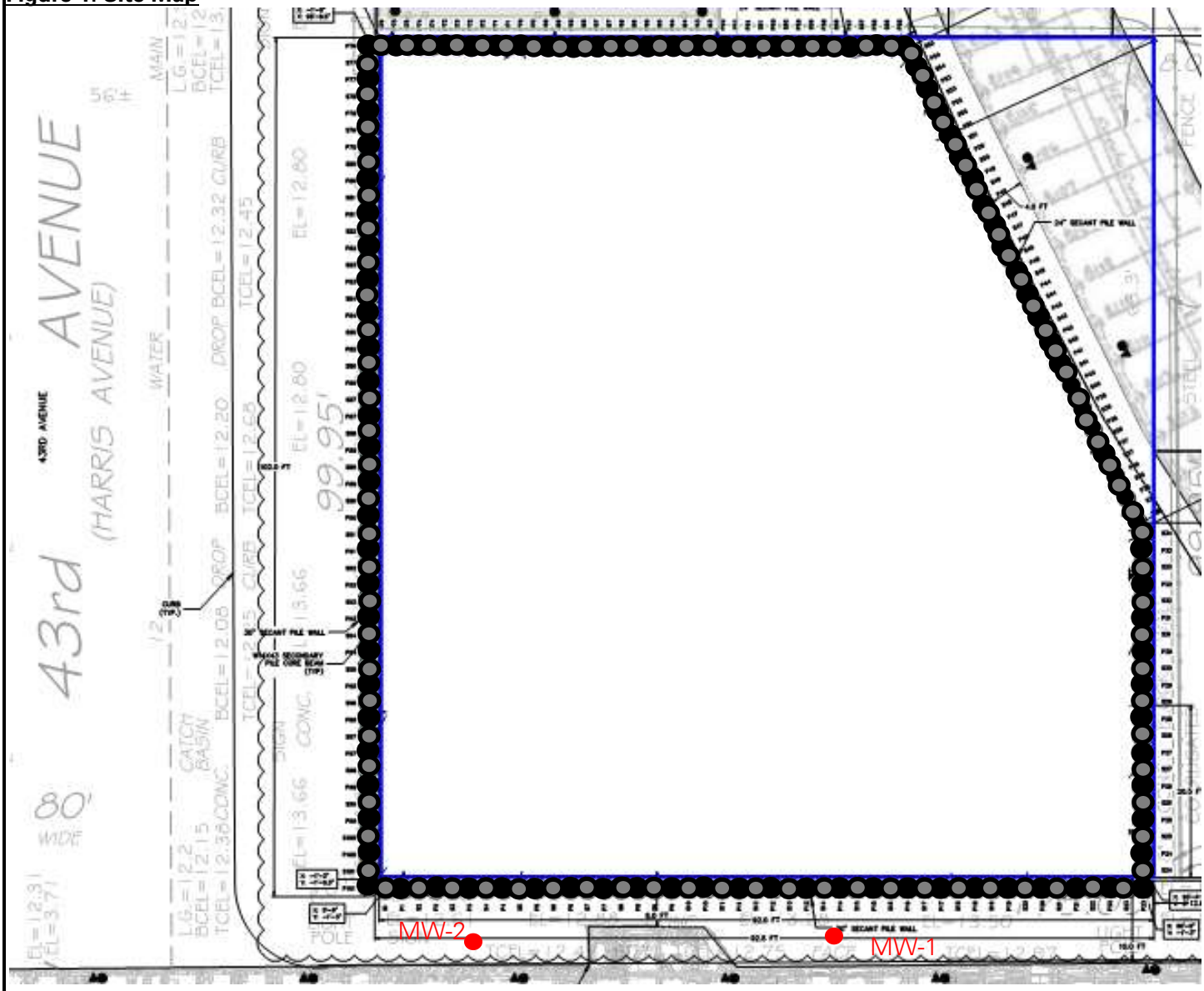
Anticipated Activities

- Further assessment of groundwater sample analytical results will determine future site activities, if required by the NYSDEC.

Cc:	L. Haley, K. Semon, B. Gochenaur, M. Raygorodetsky (Langan)	By:	Ali Reach **LANGAN**

SITE OBSERVATION REPORT

Figure 1: Site Map



Legend:

- Monitoring Well Location

Cc:	L. Haley, K. Semon, B. Gochenaur, M. Raygorodetsky (Langan)	By:	Ali Reach **LANGAN**

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: View of Langan purging monitoring well MW-2 along the Jackson Avenue sidewalk (facing northwest).

Cc:	L. Haley, K. Semon, B. Gochenaur, M. Raygorodetsky (Langan)	By:	Ali Reach **LANGAN**

ATTACHMENT C

Well Purging and Sampling Logs

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	27-01 Jackson Ave	**Well No:**	MW-1	**Water Quality Device Model:**	Horiba U-52	**Weather:**	Cloudy, 69-84 °F	**Sample(s):**	MW-1_072924 and MS/MSD
Project Number:	170472002	**Well Depth:**	19 ft	**Pine Number:**	25355	**Background PID (ppm):**	0.0		
Site Location:	Long Island City, NY	**Well Diameter:**	2-inch	**Pump Make and Model:**	Peristaltic Pump	**PID Beneath Inner Cap (ppm):**	147		
Sampling Personnel:	Ali Reach	**Well Screen Interval:**	9 ft	**Pine Number:**	01118	**Pump Intake Depth:**	18.00	**Sample Date:**	7/29/2024
			19 ft	**Tubing Diameter:**	3/8-inch OD	**Depth to Water Before Purge:**	14.5	**Sample Time:**	14:15

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
12:35	24.89	7.41	-64	3.090	24.0	0.34	14.50	N/A	0.00	orange-beige material	**N**
12:40	22.73	6.98	-65	3.100	20.5	0.00	16.10	0.05	0.25		**N**
12:45	21.49	6.79	-70	2.910	26.8	0.00	18.00	0.05	0.50	clear, no odor	**N**
13:20	24.16	6.74	-78	2.620	25.3	0.32	16.02	0.05	0.75	well dry. wait for recharge	**N**
13:25	22.52	6.82	-82	2.420	39.1	6.48	17.40	0.05	1.00	clear, no odor	**N**
13:30	21.99	6.78	-80	2.410	39.4	6.02	17.90	0.05	1.25		**N**
13:35	22.06	6.76	-80	2.540	63.4	0.14	18.90	0.05	1.50	well dry. wait for recharge	**N**
13:40	22.89	7.10	-100	2.640	57.2	0.00	18.40	0.09	1.20	clear, no odor	**N**
13:45	22.91	6.85	-113	2.641	43.0	0.00	18.90	0.04	1.20	well dry. wait for recharge	**N**

Additional water quality parameters were not monitored due to poor recharge of the well. Groundwater sample was collected after purging about three well volumes.

Notes:

1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit
11. N/A = Not Applicable

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	27-01 Jackson Ave	**Well No:**	MW-2	**Water Quality Device Model:**	Horiba U-52	**Weather:**	Cloudy, 69-84 °F	**Sample(s):**	MW-2_072924 and DUP01_072924
Project Number:	170472002	**Well Depth:**	20 ft	**Pine Number:**	25355	**Background PID (ppm):**	0.0		
Site Location:	Long Island City, NY	**Well Diameter:**	1-inch	**Pump Make and Model:**	Peristaltic Pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling Personnel:	Ali Reach	**Well Screen Interval:**	10 ft 20 ft	**Pine Number:** **Tubing Diameter:**	01118 3/8-inch OD	**Pump Intake Depth:** **Depth to Water Before Purge:**	16.5 ft 12.42 ft	**Sample Date:** **Sample Time:**	7/29/2024 11:30

a

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) (<0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
10:40	24.78	9.60	-2	1.21	84.0	5.08	N/A	N/A	0.0	clear water, no odors/sheen	**N**
10:45	24.76	9.63	-6	1.20	69.0	5.09	N/A	0.05	0.25		**N**
10:50	24.77	9.64	-7	1.21	63.0	5.09	N/A	0.05	0.5		**N**
10:55	24.77	9.69	-13	1.18	50.0	5.23	N/A	0.05	0.75		**N**
11:00	25.15	9.72	-25	1.16	28.5	6.04	N/A	0.05	1		**N**
11:05	25.20	9.85	-24	1.14	24.6	6.06	N/A	0.05	1.25		**N**
11:10	25.18	9.91	-29	1.15	23.2	6.10	N/A	0.05	1.50		**N**
11:15	25.11	9.92	-31	1.14	22.9	6.07	N/A	0.05	1.75		**Y**

Notes:
1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit
11. N/A = Not Applicable

ATTACHMENT D

Laboratory Analytical Report

ANALYTICAL REPORT

Lab Number:	L2442518
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Kimberly Semon
Phone:	(212) 479-5486
Project Name:	27-01 JACKSON AVENUE
Project Number:	170472002
Report Date:	08/02/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002

Lab Number: L2442518
Report Date: 08/02/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2442518-01	MW-1_072924	WATER	LONG ISLAND CITY, QUEENS	07/29/24 14:15	07/29/24
L2442518-02	MW-2_072924	WATER	LONG ISLAND CITY, QUEENS	07/29/24 11:30	07/29/24
L2442518-03	DUP01_072924	WATER	LONG ISLAND CITY, QUEENS	07/29/24 00:00	07/29/24
L2442518-04	FB01_072924	WATER	LONG ISLAND CITY, QUEENS	07/29/24 14:40	07/29/24
L2442518-05	TB01_072924	WATER	LONG ISLAND CITY, QUEENS	07/29/24 00:00	07/29/24

Project Name:	27-01 JACKSON AVENUE	**Lab Number:**	L2442518
Project Number:	170472002	**Report Date:**	08/02/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	27-01 JACKSON AVENUE	**Lab Number:**	L2442518
Project Number:	170472002	**Report Date:**	08/02/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 08/02/24

ORGANICS

VOLATILES

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-01
Client ID: MW-1_072924
Sample Location: LONG ISLAND CITY, QUEENS
Date Collected: 07/29/24 14:15
Date Received: 07/29/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/24 11:57
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-01 Date Collected: 07/29/24 14:15

Client ID: MW-1_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	0.85	J	ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-01 Date Collected: 07/29/24 14:15

Client ID: MW-1_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	2.3		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	7.4		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-02
Client ID: MW-2_072924
Sample Location: LONG ISLAND CITY, QUEENS

Date Collected: 07/29/24 11:30
Date Received: 07/29/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/24 12:23
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	1.2	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-02 Date Collected: 07/29/24 11:30

Client ID: MW-2_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	1.1	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	1.1	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	21		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	4.6	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	0.94	J	ug/l	2.5	0.70	1
sec-Butylbenzene	0.92	J	ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	2.4	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	0.96	J	ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-02 Date Collected: 07/29/24 11:30

Client ID: MW-2_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	6.5		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.79	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	16		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	1.3	J	ug/l	2.0	0.70	1
p-Ethyltoluene	5.6		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	8.5		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-03
Client ID: DUP01_072924
Sample Location: LONG ISLAND CITY, QUEENS

Date Collected: 07/29/24 00:00
Date Received: 07/29/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/24 12:48
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	1.1	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-03 Date Collected: 07/29/24 00:00

Client ID: DUP01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	0.92	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	0.92	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	27		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	4.7	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	0.91	J	ug/l	2.5	0.70	1
sec-Butylbenzene	0.86	J	ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	2.1	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	0.87	J	ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-03 Date Collected: 07/29/24 00:00

Client ID: DUP01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	6.1		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.72	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	15		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	1.2	J	ug/l	2.0	0.70	1
p-Ethyltoluene	5.3		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	7.0		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-04
Client ID: FB01_072924
Sample Location: LONG ISLAND CITY, QUEENS
Date Collected: 07/29/24 14:40
Date Received: 07/29/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/24 13:15
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-04 Date Collected: 07/29/24 14:40

Client ID: FB01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-04 Date Collected: 07/29/24 14:40

Client ID: FB01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	105		70-130

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-05
Client ID: TB01_072924
Sample Location: LONG ISLAND CITY, QUEENS
Date Collected: 07/29/24 00:00
Date Received: 07/29/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/24 13:41
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-05 Date Collected: 07/29/24 00:00

Client ID: TB01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

SAMPLE RESULTS

Lab ID: L2442518-05 Date Collected: 07/29/24 00:00

Client ID: TB01_072924 Date Received: 07/29/24

Sample Location: LONG ISLAND CITY, QUEENS Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	105		70-130

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/24 08:10
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1954197-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/24 08:10
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1954197-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518

Project Number: 170472002 **Report Date:** 08/02/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/24 08:10
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1954197-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1954197-3 WG1954197-4								
Methylene chloride	96		96		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	88		90		63-130	2		20
1,1,2-Trichloroethane	93		96		70-130	3		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	97		100		70-130	3		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	95		98		67-130	3		20
trans-1,3-Dichloropropene	85		89		70-130	5		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	92		97		54-136	5		20
1,1,2,2-Tetrachloroethane	94		99		67-130	5		20
Benzene	100		100		70-130	0		20
Toluene	99		98		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	110		110		64-130	0		20
Bromomethane	80		82		39-139	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1954197-3 WG1954197-4								
Vinyl chloride	110		100		55-140	10		20
Chloroethane	100		99		55-138	1		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	99		99		70-130	0		20
Trichloroethene	93		96		70-130	3		20
1,2-Dichlorobenzene	99		100		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	98		100		70-130	2		20
Methyl tert butyl ether	96		100		63-130	4		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	97		99		70-130	2		20
1,2,3-Trichloropropane	96		100		64-130	4		20
Acrylonitrile	110		110		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	110		110		58-148	0		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	100		110		63-138	10		20
Vinyl acetate	96		100		70-130	4		20
4-Methyl-2-pentanone	91		96		59-130	5		20
2-Hexanone	94		100		57-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1954197-3 WG1954197-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	99		100		70-130	1		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	95		96		64-130	1		20
Bromobenzene	97		98		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	98		100		70-130	2		20
p-Chlorotoluene	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	91		95		41-144	4		20
Hexachlorobutadiene	94		96		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	99		99		70-130	0		20
Naphthalene	95		99		70-130	4		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		99		70-130	1		20
1,4-Dioxane	132		126		56-162	5		20
p-Diethylbenzene	99		100		70-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 27-01 JACKSON AVENUE
Project Number: 170472002
Lab Number: L2442518
Report Date: 08/02/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1954197-3 WG1954197-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	96		98		70-130	2		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	99		102		70-130
Dibromofluoromethane	101		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 27-01 JACKSON AVENUE

Project Number: 170472002

Lab Number: L2442518

Report Date: 08/02/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1954197-6 WG1954197-7 QC Sample: L2442518-01 Client ID: MW-1_072924												
Methylene chloride	ND	10	9.3	93		9.0	90		70-130	3		20
1,1-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
Chloroform	ND	10	9.9	99		9.8	98		70-130	1		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	10	100		9.9	99		70-130	1		20
Dibromochloromethane	ND	10	8.9	89		8.8	88		63-130	1		20
1,1,2-Trichloroethane	ND	10	9.7	97		9.8	98		70-130	1		20
Tetrachloroethene	ND	10	10	100		9.9	99		70-130	1		20
Chlorobenzene	ND	10	9.4	94		9.3	93		75-130	1		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
Bromodichloromethane	ND	10	10	100		9.9	99		67-130	1		20
trans-1,3-Dichloropropene	ND	10	7.9	79		8.0	80		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.2	92		9.2	92		70-130	0		20
1,1-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
Bromoform	ND	10	9.1	91		9.0	90		54-136	1		20
1,1,2,2-Tetrachloroethane	ND	10	9.8	98		9.5	95		67-130	3		20
Benzene	ND	10	10	100		9.2	92		70-130	8		20
Toluene	ND	10	9.4	94		9.3	93		70-130	1		20
Ethylbenzene	ND	10	9.8	98		9.7	97		70-130	1		20
Chloromethane	ND	10	11	110		11	110		64-130	0		20
Bromomethane	ND	10	5.0	50		5.3	53		39-139	6		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 27-01 JACKSON AVENUE

Project Number: 170472002

Lab Number: L2442518

Report Date: 08/02/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1954197-6 WG1954197-7 QC Sample: L2442518-01 Client ID: MW-1_072924												
Vinyl chloride	ND	10	11	110		11	110		55-140	0		20
Chloroethane	ND	10	9.8	98		9.7	97		55-138	1		20
1,1-Dichloroethene	ND	10	11	110		11	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Trichloroethene	ND	10	9.8	98		9.5	95		70-130	3		20
1,2-Dichlorobenzene	ND	10	9.4	94		9.5	95		70-130	1		20
1,3-Dichlorobenzene	ND	10	9.2	92		9.4	94		70-130	2		20
1,4-Dichlorobenzene	ND	10	9.1	91		9.2	92		70-130	1		20
Methyl tert butyl ether	ND	10	10	100		10	100		63-130	0		20
p/m-Xylene	ND	20	20	100		20	100		70-130	0		20
o-Xylene	ND	20	19	95		19	95		70-130	0		20
cis-1,2-Dichloroethene	ND	10	9.8	98		9.8	98		70-130	0		20
Dibromomethane	ND	10	9.8	98		9.9	99		70-130	1		20
1,2,3-Trichloropropane	ND	10	10	100		9.7	97		64-130	3		20
Acrylonitrile	ND	10	12	120		11	110		70-130	9		20
Styrene	ND	20	19	95		19	95		70-130	0		20
Dichlorodifluoromethane	ND	10	10	100		10	100		36-147	0		20
Acetone	1.8J	10	17	**170**	Q	14	140		58-148	19		20
Carbon disulfide	ND	10	10	100		10	100		51-130	0		20
2-Butanone	ND	10	12	120		12	120		63-138	0		20
Vinyl acetate	ND	10	9.9	99		9.8	98		70-130	1		20
4-Methyl-2-pentanone	ND	10	10	100		10	100		59-130	0		20
2-Hexanone	ND	10	12	120		11	110		57-130	9		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 27-01 JACKSON AVENUE

Project Number: 170472002

Lab Number: L2442518

Report Date: 08/02/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1954197-6 WG1954197-7 QC Sample: L2442518-01 Client ID: MW-1_072924												
Bromochloromethane	ND	10	10	100		10	100		70-130	0		20
2,2-Dichloropropane	ND	10	7.3	73		7.1	71		63-133	3		20
1,2-Dibromoethane	ND	10	10	100		9.8	98		70-130	2		20
1,3-Dichloropropane	ND	10	9.8	98		9.8	98		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	9.5	95		9.5	95		64-130	0		20
Bromobenzene	ND	10	9.1	91		9.2	92		70-130	1		20
n-Butylbenzene	ND	10	9.4	94		9.3	93		53-136	1		20
sec-Butylbenzene	0.85J	10	9.8	98		9.9	99		70-130	1		20
tert-Butylbenzene	ND	10	10	100		10	100		70-130	0		20
o-Chlorotoluene	ND	10	9.2	92		9.3	93		70-130	1		20
p-Chlorotoluene	ND	10	9.0	90		9.2	92		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	10	9.3	93		9.2	92		41-144	1		20
Hexachlorobutadiene	ND	10	9.3	93		9.5	95		63-130	2		20
Isopropylbenzene	ND	10	10	100		10	100		70-130	0		20
p-Isopropyltoluene	ND	10	9.4	94		9.4	94		70-130	0		20
Naphthalene	ND	10	11	110		11	110		70-130	0		20
n-Propylbenzene	ND	10	9.7	97		9.8	98		69-130	1		20
1,2,3-Trichlorobenzene	ND	10	9.8	98		10	100		70-130	2		20
1,2,4-Trichlorobenzene	ND	10	9.7	97		9.8	98		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	9.4	94		9.5	95		64-130	1		20
1,2,4-Trimethylbenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dioxane	ND	500	590	118		610	122		56-162	3		20
p-Diethylbenzene	2.3	10	11	87		11	87		70-130	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 27-01 JACKSON AVENUE

Project Number: 170472002

Lab Number: L2442518

Report Date: 08/02/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1954197-6 WG1954197-7 QC Sample: L2442518-01 Client ID: MW-1_072924												
p-Ethyltoluene	ND	10	9.6	96		9.6	96		70-130	0		20
1,2,4,5-Tetramethylbenzene	7.4	10	14	**66**	Q	16	86		70-130	13		20
Ethyl ether	ND	10	10	100		10	100		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	9.7	97		9.4	94		70-130	3		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		107		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	102		101		70-130
Toluene-d8	98		98		70-130

Project Name: 27-01 JACKSON AVENUE
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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2442518-01A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01A1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01A2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01B1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01B2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01C1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-01C2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-02A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-02B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-02C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-03A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-03B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-03C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-04A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-04B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-04C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-05A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2442518-05B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	27-01 JACKSON AVENUE	**Lab Number:**	L2442518
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 27-01 JACKSON AVENUE **Lab Number:** L2442518
Project Number: 170472002 **Report Date:** 08/02/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:08022419:18

7/30/24

L2442518 05AUG24
LANGAN – NYC

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

Project Information
Project Name: 27-01 Jackson Avenue
Project Location: Long Island City, Queens
Project # 170472002
(Use Project name as Project #) ☐
Project Manager: Kim Semon
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Client Information
Client: LANGAN
Address: 360 W 31st Street
NYC, NY, 10001
Phone: 212-479-5400
Fax: 212-479-5444
Email: Ksemon@Langan.com

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Please cc: Datamanagment@Langan.com and Lhaley@Langan.com and arench@Langan.com. *Run MW-1-072924 for MS/MSD*

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Total Bottle	Sample Specific Comments
42518-01	MW-1-072924	7/29/24	1415	GW	AR	X		Run for MS/MSD
-02	MW-2-072924		11:30	GW	AR	X		
-03	DUP01-072924		—	GW	AR	X		
-04	FB01-072924		1410	AQ	AR	X		
-05	TB01-072924		1420	AQ	AR	X		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type													
Preservative													

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible] (Langan)	7/29/24 1450	WIFI (Pace)	7/29/24 1450
WIFI (Pace)	7/29/24 2015	Anthony Green	JUL 29 2024 2100
Anthony Green	7/30/24 0220	Tyler Fodera	7/30/24 02:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ATTACHMENT E

Data Usability Summary Report

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Ali Reach, Langan Staff Geologist

From: Joe Conboy, Langan Project Chemist

Date: August 9, 2024

Re: Data Usability Summary Report
For 27-01 Jackson Avenue
July 2024 Groundwater Samples
Langan Project No.: 170472002

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in July 2024 by Langan Engineering and Environmental Services at 27-01 Jackson Avenue. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by SW-846 Method 8260D

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference

LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. All sample delivery groups underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

R – The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the 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 reporting limit; however, the reported reporting limit 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.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2442518

The FB (FB01_072924) exhibited a detection of acetone (1.5 ug/l). The associated results <10X the contamination in sample MW-1_072924, MW-2_072924, and DUP01_072924 are qualified as U at the reporting limit because of potential blank contamination.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2442518

The MS/MSD performed on sample MW-1_072924 exhibited RPDs below the control limit for 1,2,4,5-tetramethylbenzene (66%) and above the control limit for acetone (170%). Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for groundwater. The following field duplicate and parent sample pair was compared to the precision criteria:

- DUP01_072924 and MW-2_072924

The field duplicate and parent sample (DUP01_072924 and MW-2_072924) exhibited an absolute difference above the RL for acetone (6 ug/l). The associated results are qualified as J because of potential indeterminate bias.

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Joe Conboy
Project Chemist