December 12, 2023

Michael MacCabe
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

RE: Quarterly Groundwater Monitoring Report
April 2023 to July 2023 – 5th and 6th Monitoring Events
561 Greenwich Street
New York, New York
BCP Site No.: C231129
Langan Project No.: 190043702

Dear Mr. MacCabe:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) prepared this letter report to summarize the fifth and sixth quarterly performance groundwater monitoring events at 561 Greenwich Street in Manhattan, New York (the site). The site was remediated pursuant to a Brownfield Cleanup Agreement (BCA) (Site No. C231129) with the New York State Department of Environmental Conservation (NYSDEC). The remediation was completed and a Certificate of Completion (COC) was issued by NYSDEC on December 29, 2021.

Langan conducted quarterly performance groundwater monitoring in accordance with the NYSDEC-approved December 2021 Site Management Plan (SMP), prepared by Langan. As stated in the SMP, groundwater monitoring was originally proposed to be conducted on a quarterly basis in off-site groundwater monitoring wells MW21, MW22, and MW23 for two years after the in-situ remedy, and on an annual basis thereafter, unless otherwise determined or discontinued in consultation with the NYSDEC. As presented in the *Q2-Q4 Quarterly Groundwater Monitoring Report,* prepared by Langan, significant contaminant reduction was achieved in off-site monitoring wells MW22 and MW23, and a request was made to discontinue monitoring and decommission these wells. Additionally, Langan proposed decommissioning the existing off-site monitoring well MW21 and reinstalling a new monitoring well in conjunction with the installation of a new sidewalk to increase transmissivity of groundwater into MW21A. The NYSDEC approved the proposed approach for the off-site monitoring wells via e-mail on December 16, 2022.

Groundwater monitoring wells MW21 through MW23 were decommissioned in March 2023 and a replacement well for MW21, MW21A, was installed on March 10, 2023. Well decommissioning and reinstallation details are provided below and in the 2021-2023 Periodic Review Report (PRR), prepared by Langan. This groundwater monitoring report presents the findings from the 5th and 6th performance monitoring events. A copy of the December 16, 2022 email from the NYSDEC is included in Attachment 1.

The results of the first quarterly performance groundwater monitoring event are presented in the NYSDEC-approved December 2021 Final Engineering Report (FER), prepared by Langan. Additionally, the results for the baseline, post-injection, and first through fourth quarterly performance groundwater monitoring events are provided in Table 1 of this report.

Background

The site is at 561 Greenwich Street in Manhattan, New York and is identified as Block 598, Lot 42 on the New York City (NYC) Manhattan Borough Tax Map. The 20,045-square-foot site is bound by King Street to the north, a 17-story commercial office building to the east (Block 598, Lot 58), Charlton Street to the south, and Greenwich Street to the west. A site location map is provided as Figure 1.

The Rector, Church-Wardens, and Vestrymen of Trinity Church, in the city of New-York; 561 HH LLC; and Remainderman 561 Greenwich LLC (the Participants) entered into a BCA with the NYSDEC to remediate the site as Participants in the NYS Brownfield Cleanup Program (BCP) on July 24, 2019. The site was assigned an E-Designation (E-288) by the New York City Department of City Planning (NYCDCP) as part of the March 20, 2013 Hudson Square Rezoning (City Environmental Quality Review [CEQR] No. 12DCP045M). The E-Designation for hazardous materials requires an environmental assessment of soil, groundwater, and soil vapor, which was satisfied by the remedial investigation performed pursuant to the BCA, and is administered by the New York City Office of Environmental Remediation (NYCOER). The site was remediated for restricted commercial use and is improved with an 18-story commercial office building with ground-floor retail space and a full cellar.

Remediation was performed in advance of and concurrently with site redevelopment. The remediation included demolition, installation of a support of excavation (SOE) system, site-wide soil/fill excavation to elevation (el.) -2.5 (about 14 to 16 feet below grade surface [bgs]) with localized deeper excavation to el. -5 to remove petroleum-impacted soil, removal of underground storage tanks, recovery of light non-aqueous phase liquid (LNAPL), in-situ remediation of petroleum-impacted groundwater both on- and off-site, and site-wide groundwater dewatering and treatment of dewatered groundwater.

Groundwater Treatment

A two-phase in-situ groundwater treatment program, consisting of in-situ chemical oxidation (ISCO) injections followed by activated carbon (powdered activated carbon [PAC] or Petrofix) injections, was performed to treat petroleum-impacted groundwater associated with NYSDEC Spill No. 1801068. In-situ treatment and injection events were performed during the events listed below:

- On- and off-site ISCO injections – March 6 to March 20, 2020
- On-site PAC injections – August 24 to August 28, 2020
- On-site dewatering and treatment – April 2 to June 25, 2021
- Off-site dewatering and treatment – April 19 to June 28, 2021
- Off-site Petrofix injections – July 30 to August 5, 2021

March 2023 - Monitoring Well Decommissioning and Reinstallation

On March 10, 2023, Lakewood Environmental Services Corp. (Lakewood) decommissioned MW21 and OS-RW03 by tremie grouting in place, in accordance with NYSDEC Commissioner Policy (CP)-43: Groundwater Monitoring Well Decommissioning Policy. The remaining monitoring and recovery wells (MW22, MW23, OS-RW01, and OS-RW02) were decommissioned between March 27 and 29, 2023 by tremie grouting in place.

On March 10, 2023, Lakewood used a Geoprobe 6610DT to install monitoring well MW21A proximate to the original MW21 location within the Greenwich Street sidewalk. The monitoring well borehole was

advanced to 25 feet bgs and a 4-inch-diameter, 20-foot-long continuously wrapped 30-slot well screen was installed from about 5 to 25 feet bgs and a solid PVC riser pipe was installed from 5 feet bgs to surface grade. The annulus of the groundwater monitoring well was backfilled with No. 2 sand to about 3 feet bgs followed by an about 2-foot-thick hydrated bentonite seal. The well was completed with a flush-mounted road box and concrete pad. Following installation, the groundwater monitoring well was developed by Lakewood personnel using a whale pump to clarify purged development water. A monitoring well construction log for MW21A is included in Attachment 2. The locations of former monitoring wells and newly installed monitoring well MW21A are presented on Figure 2.

Groundwater Sampling

Fifth Quarterly Groundwater Monitoring Event – April 2023

Groundwater monitoring well MW21A was sampled on April 6, 2023, in accordance with the United States Environmental Protection Agency (USEPA) low-flow groundwater sampling procedure. The groundwater sample was collected using a field filter.

Langan used a photoionization detector (PID) to screen the headspace of MW21A and recorded a total volatile organic compound (VOC) reading of 29.4 parts per million (ppm). Langan measured the depth to groundwater using a Solinst oil/water interface probe. No NAPL was detected in MW21A, and groundwater was encountered at 6.38 feet below the top of the well casing. Prior to collecting the groundwater sample, about 8.25 gallons was purged from the well using a peristaltic pump with dedicated polyethylene tubing. 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. Groundwater was initially light brown in color and exhibited a faint petroleum-like odor. Prior to sample collection, groundwater was purged for one hour and all groundwater quality parameters stabilized with the exception of turbidity. Groundwater measurements and observations were recorded on a groundwater sampling log, which is included in Attachment 3.

For quality assurance and quality control (QA/QC) purposes, one field blank and one matrix spike/matrix spike duplicate (MS/MSD) sample set were collected during the sampling event. A field duplicate was not collected during the 5th monitoring event since only one monitoring well was sampled. A trip blank sample was included in the shipment for quality control during transport. All samples were analyzed for target compound list (TCL) VOCs and sulfate by Alpha Analytical Laboratories (Alpha), a New York State Department of Health Environmental Laboratory Accreditation Program-certified laboratory in Westborough, Massachusetts.

Sixth Quarterly Groundwater Monitoring Event – July 2023

Groundwater monitoring well MW21A was sampled on July 28, 2023, in accordance with the USEPA low-flow groundwater sampling procedure.

Langan used a PID to screen the headspace of MW21A and recorded a total VOC concentration of 5.8 ppm. Langan measured the depth to groundwater using a Solinst oil/water interface probe. No NAPL was detected in MW21A, and groundwater was encountered at 8.42 feet below the top of the well casing. Prior to collecting the groundwater sample, about 3.25 gallons was purged from the well using a peristaltic pump. During purging, the turbidity, pH, temperature, conductivity, ORP, and DO were monitored using a Horiba U-52 water quality meter with a flow-through cell. Groundwater was purged until physical and chemical groundwater parameters stabilized and was initially light brown in color and exhibited a faint petroleum-like odor. Groundwater measurements and observations were recorded on a groundwater sampling log, which is included in Attachment 3.

For QA/QC purposes, one field blank and one MS/MSD sample set were collected during the sampling event. A field duplicate was not collected since only one groundwater well was sampled. A trip blank sample was included in the shipment for quality control during transport. All samples were analyzed for TCL VOCs and sulfate by Alpha.

Validation Overview

Data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-34, "Trace Volatile Data Validation" (February 19, 2013, Revision 3). Validation includes reconstruction of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. The data was found to be valid and usable for its intended application. A Data Usability Summary Report (DUSR) is included in Attachment 4.

Groundwater Monitoring Analytical Results

Laboratory analytical data was compared to the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values (SGV) for Class GA Water (collectively referred to as SGVs). The laboratory analytical reports are included as Attachment 5.

Fifth and Sixth Quarterly Groundwater Monitoring Event – April 2023 and July 2023

Eleven VOCs were detected above the SGVs in the groundwater sample collected from MW21A during the April 2023 and July 2023 sampling events. The following table provides a summary of each VOC that exceeded the SGVs during the fifth and sixth quarters in MW21A, as compared to baseline concentrations and the maximum concentrations, which were detected during January 2022 (Q2) in MW21.

Baseline, January 2022, April 2023 and July 2023 Groundwater Monitoring Event Summary of Exceedances					
Analyte	**NYSDEC SGV (µg/L)**	**MW21**	**MW21**	**MW21A**	**MW21A**
		Baseline	**Q2**	**Q5**	**Q6**
1,2,4,5-Tetramethylbenzene	5	57	ND	22	14 J
1,2,4-Trimethylbenzene	5	1,100	490	120	360
1,3,5-Trimethylbenzene	5	180	80 J	67	99
Benzene	1	140	1,400	31	300
Ethylbenzene	5	690	980	45	300
Isopropylbenzene	5	38	ND	7.5	13 J
m,p-Xylene	5	1,200	4,800	180	1,200
Naphthalene	10	310	ND	25	81
n-Propylbenzene	5	96	ND	15	24 J
o-Xylene	5	69	2,900	160	810
Toluene	5	89	8,700	100	1,900
Total Xylenes	5	1,300	7,700	340	2,000
Total BTEX	**NS**	**2,219**	**18,780**	**516**	**4,510**
Total VOCs	**NS**	**4,328.8**	**19,800**	**1,054.73**	**5,384.80**

µg/L = microgram per liter ND = Not detected
J = The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample

A table comparing concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) and total VOCs in monitoring well MW21A between the fifth and sixth monitoring events is shown below.

Q5 and Q6 BTEX and Total VOC Percent Reduction from Q2 Event at MW21A		
Analyte	**MW21A**	**MW21A**
	Q5	**Q6**
BTEX	- 97%	- 76%
Total VOCs	- 95%	- 73%

Post-injection and quarterly groundwater sample analytical results are presented in Table 1 and on Figure 2.

Geochemical Conditions

Geochemical parameters, including pH, ORP, and DO, were field documented at each monitoring well during purging (Attachment 3). Sulfate (as SO_4) was also analyzed by the laboratory. The analytical laboratory reports from the fifth and sixth quarterly monitoring event are included in Attachment 5. The results and conclusions of the geochemical analyses are summarized as follows:

- DO and ORP levels indicated a subsurface aerobic and oxidative environment during the fifth quarterly sampling event in monitoring well MW21A.
- ORP levels indicated a subsurface reducing environment during the sixth quarterly sampling event in MW21A.[1]

Findings

Significant contaminant reduction was observed in MW21/MW21A between the second quarter (January 2022) sampling event and the fifth and sixth quarter (April and July, 2023, respectively) sampling events, as evidenced by the reduction in VOC concentrations (-95% and -73%, respectively) and BTEX concentrations (-97% and -76% respectively).

Despite the increase in VOC and BTEX concentrations observed between the fifth and sixth quarters, VOCs have shown a declining trend at monitoring well MW21/MW21A since the second quarter (January 2022). During the next quarterly sampling event, Langan proposes installation of five 1-foot-long, 4-inch-diameter Oxygen Release Compound (ORC) socks, manufactured by Regenesis, to promote degradation of residual petroleum compounds in groundwater in the vicinity of MW21A. The socks will be placed across the top ten feet of the groundwater table within MW21A. The efficacy of this groundwater remediation measure will be evaluated during subsequent performance monitoring events.

[1] DO levels measured during the sixth quarterly sampling event were over 9 mg/L, indicating an equipment malfunction with the Horiba groundwater quality device. DO readings from the sixth groundwater monitoring event are thus erroneous and will not be used to evaluate subsurface groundwater conditions.

Sincerely,

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

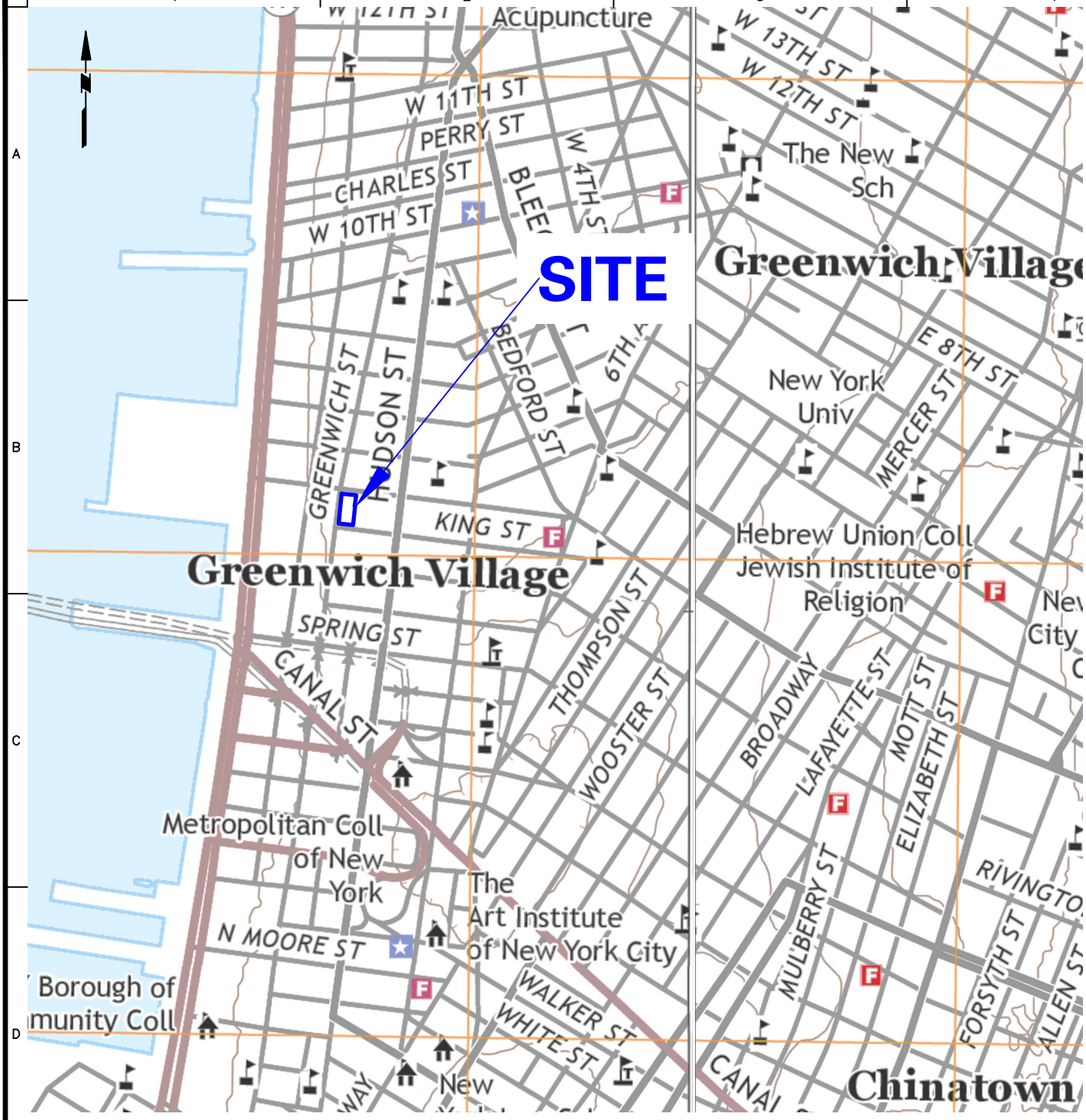
Michael D. Burke, PG, CHMM
Principal/Vice President

Enclosures:

Figure 1	Site Location Map
Figure 2	Groundwater Sample Analytical Results Map
Table 1	Performance Groundwater Sample Analytical Results
Table 2	Quality Assurance/Quality Control Sample Analytical Results
Attachment 1	NYSDEC Correspondence
Attachment 2	Monitoring Well Construction Log
Attachment 3	Groundwater Sampling Logs
Attachment 4	Data Usability Summary Reports
Attachment 5	Laboratory Analytical Reports

cc: Paul McMahon, Elizabeth Adkins, Jack Frey – Langan
Matthew Fox – The Rector, Church-Wardens, and Vestrymen of Trinity Church, in the city of New-York
561 HH LLC
Remainderman 561 Greenwich LLC
Aliza Cinamon – Proskauer Rose LLP

FIGURES



NOTES:

1. BASE MAP IS REFERENCED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, JERSEY CITY AND BROOKLYN QUADRANGLES, DATED 2016.

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LANGAN

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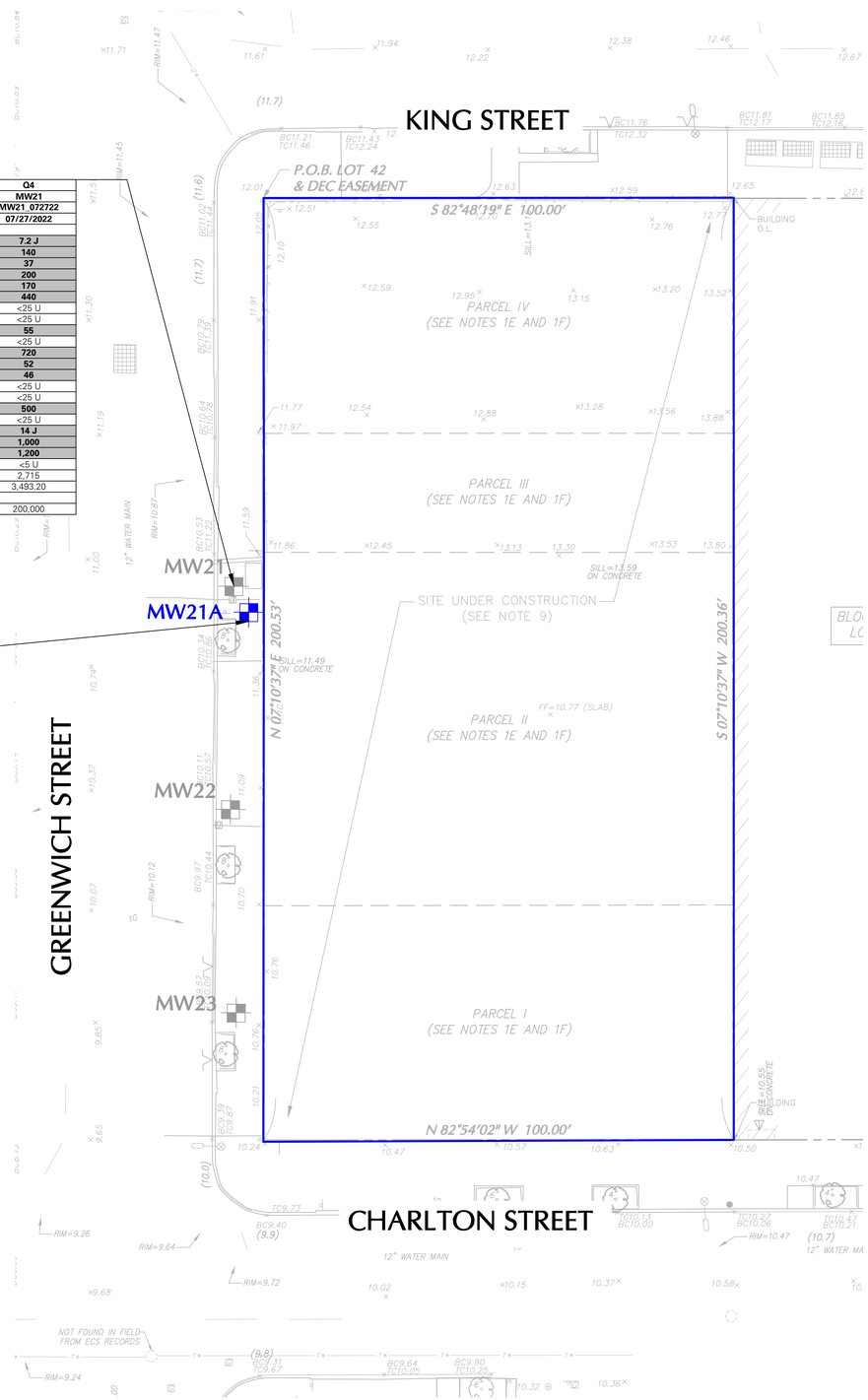
Project	561 GREENWICH STREET BLOCK No. 598 LOT No. 42 NEW YORK NEW YORK
Figure Title	SITE LOCATION MAP
Project No.	190043702
Date	10/1/2021
Drawn By	KR
Checked By	ERA
Figure No.	1
Sheet	1 of 2

Filename: \\langan.com\data\WPW\data7\190043701\Project Data\CAD\01\SheetFiles\Environmental\BCP - FER\Figure 1 - Site Location Map.dwg Date: 9/27/2021 Time: 10:34 User: kracanelli Style Table: Langan.stb Layout: Site Location Map

Sampling Event	Baseline	Post-Injection	Post-Injection	Q1	Q2	Q3	Q4
Location	MW21	MW21	MW21	MW21	MW21	MW21	MW21
Sample Name	MW21_110618	MW21_04202021	MW21_061920	MW21_091621	MW21_012822	MW21_041522	MW21_072722
Sample Date	11/06/2018	04/20/2021	06/19/2020	09/16/2021	01/28/2022	04/15/2022	07/27/2022
VOCs							
1,2,4,5-Tetramethylbenzene	**57**	**5.4**	**11**	<2 U	<200 U	**57**	**7.2 J**
1,2,4-Trimethylbenzene	**1,100**	**28**	**58**	<2.5 U	**490**	**1,100**	**140**
1,3,5-Trimethylbenzene (Mesitylene)	**180**	**11**	**14**	<2.5 U	**80 J**	**310**	**37**
2-Hexanone (MBK)	<50 U	<5 U	<5 U	1.6 J	<500 U	<100 U	**200**
Acetone	<50 U	**71 J**	**130**	11	**160 J**	**100**	**170**
Benzene	**140**	**3.2**	**26**	<0.5 U	**1,400**	**340**	**440**
Bromomethane	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 UJ	<50 U	<25 U
Cymene	<25 U	0.71 J	0.97 J	<2.5 U	<250 U	<50 U	<25 U
Ethylbenzene	**690**	**8.8**	**39**	<2.5 U	**980**	**400**	**55**
Isopropylbenzene (Cumene)	**38**	1.5 J	2.4 J	<2.5 U	<250 U	**56**	<25 U
M,P-Xylene	**1,200**	**27**	**72**	<2.5 U	**4,800**	**2,200**	**720**
Methyl Ethyl Ketone (2-Butanone)	<50 U	<5 UJ	<5 U	3.2 J	<500 U	<100 U	**52**
Naphthalene	**310**	7.2	**32**	<2.5 U	<250 U	**130**	**46**
n-Butylbenzene	**8.8 J**	<2.5 U	2.4 J	<2.5 U	<250 U	<50 U	<25 U
n-Propylbenzene	**96**	2.8	**6.3**	<2.5 U	<250 U	**140**	<25 U
o-Xylene (1,2-Dimethylbenzene)	**69**	**10**	**17**	<2.5 U	**2,900**	**1,000**	**500**
Sec-Butylbenzene	<25 U	<2.5 U	0.97 J	<2.5 U	<250 U	<50 U	<25 U
Tert-Butyl Methyl Ether	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	**14 J**
Toluene	**89**	**6.9**	**16**	<2.5 U	**8,700**	**1,900**	**1,000**
Total Xylenes	**1,300**	**37**	**89**	<2.5 U	**7,700**	**3,200**	**1,200**
Trichloroethene (TCE)	<5 U	<0.5 UJ	<0.5 U	<0.5 U	<50 U	<10 U	<5 U
Total BTEX	2,188	170	56	ND	18,780	5,840	2,715
Total VOCs	4,297.80	453.14	210.59	16.66	19,800	8,833	3,493.20
General Chemistry							
Sulfate (As SO4)	NA	NA	NA	96,000	140,000	85,000	200,000

Sampling Event	Q5	Q6
Location	MW21A	MW21A
Sample Name	MW21A_040623	MW21A_072823
Sample Date	04/06/2023	07/28/2023
VOCs		
1,2,4,5-Tetramethylbenzene	**22**	**14 J**
1,2,4-Trimethylbenzene	**120**	**360**
1,3,5-Trimethylbenzene (Mesitylene)	**67**	**99**
2-Hexanone (MBK)	<5 U	<50 U
Acetone	44	<50 U
Benzene	**31**	**300**
Bromomethane	0.77 J	<25 U
Cymene	2.2 J	<25 U
Ethylbenzene	**45**	**300**
Isopropylbenzene (Cumene)	**7.5**	**13 J**
M,P-Xylene	**180**	**1,200**
Methyl Ethyl Ketone (2-Butanone)	38	27 J
Naphthalene	**25**	**81**
n-Butylbenzene	3	<25 U
n-Propylbenzene	**15**	**24 J**
o-Xylene (1,2-Dimethylbenzene)	**160**	**810**
Sec-Butylbenzene	2.5	<25 U
Tert-Butyl Methyl Ether	<2.5 U	<25 U
Toluene	**100**	**1,900**
Total Xylenes	**340**	**2,000**
Trichloroethene (TCE)	<0.5 U	<5 U
Total BTEX	516	4,510
Total VOCs	1,054.73	5,384.80
General Chemistry		
Sulfate (As SO4)	190,000	110,000



LEGEND:

- APPROXIMATE SITE BOUNDARY
- MW21 — APPROXIMATE FORMER OFF-SITE PERFORMANCE MONITORING WELL LOCATION (DECOMMISSIONED MARCH 2023)
- MW21A — APPROXIMATE OFF-SITE PERFORMANCE MONITORING WELL LOCATION

Analyte	NYSDEC SGVs
VOCs	
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,3,5-Trimethylbenzene (Mesitylene)	5
2-Hexanone (MBK)	50
Acetone	50
Benzene	1
Bromomethane	5
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
M,P-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Naphthalene	10
n-Propylbenzene	5
o-Xylene (1,2-Dimethylbenzene)	5
Tert-Butyl Methyl Ether	10
Toluene	5
Total Xylenes	5
Total BTEX	NS
Total VOCs	NS
General Chemistry	
Sulfate (As SO4)	250,000

NOTES:

1. BASE MAP TAKEN FROM THE TOPOGRAPHIC, BOUNDARY AND UTILITY SURVEY DRAWING TITLED 190043701-V-EX0101, PREPARED BY LANGAN, DATED APRIL 16, 2018 AND THE JULY 6, 2021 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) EASEMENT SURVEY PREPARED BY LANGAN.
2. ELEVATIONS ON THIS FIGURE ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. MONITORING WELL LOCATIONS WERE MEASURED OFF OF SURVEYED SITE FEATURES AND ARE APPROXIMATE.
4. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NYSDEC TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS PART 703.5 AND THE NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR CLASS GA WATER (COLLECTIVELY REFERENCED AS NYSDEC SGVs).
5. ANALYTICAL RESULTS FOR THE POST-INJECTION AND FIRST QUARTERLY PERFORMANCE MONITORING EVENT ARE PROVIDED IN THE NYSDEC-APPROVED DECEMBER 2021 FINAL ENGINEERING REPORT, PREPARED BY LANGAN, AND TABLE 1 OF THIS GROUNDWATER MONITORING REPORT.
6. COMPOUNDS THAT EXCEED THE NYSDEC SGVs IN AT LEAST ONE GROUNDWATER SAMPLE ARE SHOWN.
7. CONCENTRATIONS DETECTED ABOVE THE NYSDEC SGVs ARE SHADED AND BOLDED.
8. MONITORING WELLS MW21, MW22, AND MW23 WERE DECOMMISSIONED IN MARCH 2023.
9. VOC = VOLATILE ORGANIC COMPOUND
10. U = THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE LEVEL OF THE REPORTING LIMIT (RL) OR THE SAMPLE CONCENTRATION FOR RESULTS IMPACTED BY BLANK CONTAMINATION.
11. 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.
12. J = THE ANALYTE WAS POSITIVELY IDENTIFIED AND THE ASSOCIATED NUMERICAL VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE.
13. µg/L = MICROGRAM PER LITER
14. NA = NOT ANALYZED
15. NS = NO STANDARD

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

LANGAN
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Project: 561 GREENWICH STREET
BLOCK No. 598, LOT No. 42

Figure Title: GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP

Project No. 190043702
Date 10/26/23
Drawn By JF
Checked By ERA

Figure No. 2
Sheet 2 of 2

LANGAN PROJECT NO. 190043702

Filename: \\langan.com\data\WPW\data7\190043701\Project Data\CAD\01SheetFiles\Environmental\BCP - Quarterly Groundwater Monitoring Reports\Figure 2 - Groundwater Sample Analytical Map_20230601.dwg Date: 10/26/2023 Time: 13:41 User: jfrey Style Table: Langan.stb Layout: ANSIB-BL

TABLES

Table 1
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Performance Groundwater Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Post-Injection	Post-Injection	Q1	Q2	Q3	Q4	Q5	Q6
			Location	MW21	MW21	MW21	MW21	MW21	MW21	MW21	MW21A	MW21A
			Sample Name	MW21_110618	MW21_061920	MW21_04202021	MW21_091621	MW21_012822	MW21_041522	MW21_072722	MW21A_040623	MW21A_072823
			Sample Date	11/06/2018	06/19/2020	04/20/2021	09/16/2021	01/28/2022	04/15/2022	07/27/2022	04/06/2023	07/28/2023
			Unit	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	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<15 U	<1.5 U	<1.5 U	<1.5 U	<150 UJ	<30 U	<15 U	<1.5 U	<15 U
1,1-Dichloroethane	75-34-3	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,1-Dichloroethene	75-35-4	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	**57**	**11**	**5.4**	<2 U	<200 U	**57**	**7.2 J**	**22**	**14 J**
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	**1,100**	**58**	**28**	<2.5 U	**490**	**1,100**	**140**	**120**	**360**
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<25 U	<2.5 U	<2.5 UJ	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<20 U	<2 U	<2 U	<2 U	<200 UJ	<40 U	<20 U	<2 U	<20 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<10 U	<1 U	<1 U	<1 U	<100 U	<20 U	<10 U	<1 U	<10 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	**5**	ug/l	**180**	**14**	**11**	<2.5 U	**80 J**	**310**	**37**	**67**	**99**
1,3-Dichlorobenzene	541-73-1	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,3-Dichloropropane	142-28-9	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	80	<2 U	10	<2 U	<200 U	140	14 J	51	35
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<2,500 U	<250 U	<250 UJ	<250 U	<25,000 UJ	<5,000 U	<2,500 U	<250 U	<2,500 U
2,2-Dichloropropane	594-20-7	5	ug/l	<25 U	<2.5 U	<2.5 UJ	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
2-Chlorotoluene	95-49-8	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
2-Hexanone (MBK)	591-78-6	**50**	ug/l	<50 U	<5 U	<5 U	1.6 J	<500 U	<100 U	**200**	<5 U	<50 U
4-Chlorotoluene	106-43-4	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
4-Ethyltoluene	622-96-8	NS	ug/l	240	23	14	<2 U	290	960	87	140	220
Acetone	67-64-1	**50**	ug/l	<50 U	**130**	**71 J**	11	**160 J**	**100**	**170**	44	<50 U
Acrylonitrile	107-13-1	5	ug/l	<50 U	<5 U	<5 UJ	<5 U	<500 U	<100 U	<50 U	<5 U	<50 U
Benzene	71-43-2	**1**	ug/l	**140**	**26**	**3.2**	<0.5 U	**1,400**	**340**	**440**	**31**	**300**
Bromobenzene	108-86-1	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Bromochloromethane	74-97-5	5	ug/l	<25 U	<2.5 U	<2.5 UJ	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Bromodichloromethane	75-27-4	50	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 UJ	<10 U	<5 U	<0.5 U	<5 U
Bromoform	75-25-2	50	ug/l	<20 U	<2 U	<2 UJ	<2 U	<200 U	<40 U	<20 U	<2 U	<20 U
Bromomethane	74-83-9	**5**	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 UJ	<50 U	<25 U	0.77 J	<25 U
Carbon Disulfide	75-15-0	60	ug/l	<50 U	2.1 J	<5 U	<5 U	<500 U	<100 U	<50 U	<5 U	<50 U
Carbon Tetrachloride	56-23-5	5	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
Chlorobenzene	108-90-7	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Chloroethane	75-00-3	5	ug/l	<25 U	<2.5 U	<2.5 UJ	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Chloroform	67-66-3	7	ug/l	<25 U	<2.5 U	2.9	0.86 J	<250 U	<50 U	<25 U	<2.5 U	<25 U
Chloromethane	74-87-3	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 UJ	<10 U	<5 U	<0.5 U	<5 U
Cymene	99-87-6	**5**	ug/l	<25 U	0.97 J	0.71 J	<2.5 U	<250 U	<50 U	<25 U	2.2 J	<25 U
Dibromochloromethane	124-48-1	50	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
Dibromomethane	74-95-3	5	ug/l	<50 U	<5 U	<5 U	<5 U	<500 U	<100 U	<50 U	<5 U	<50 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<50 U	<5 U	<5 UJ	<5 U	<500 U	<100 U	<50 U	<5 U	<50 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Ethylbenzene	100-41-4	**5**	ug/l	**690**	**39**	**8.8**	<2.5 U	**980**	**400**	**55**	**45**	**300**
Hexachlorobutadiene	87-68-3	0.5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	**38**	2.4 J	1.5 J	<2.5 U	<250 U	**56**	<25 U	**7.5**	**13 J**
M,P-Xylene	179601-23-1	**5**	ug/l	**1,200**	**72**	**27**	<2.5 U	**4,800**	**2,200**	**720**	**180**	**1,200**
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	<50 U	<5 U	<5 UJ	3.2 J	<500 U	<100 U	**52**	38	27 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<50 U	<5 U	<5 UJ	<5 U	<500 U	<100 U	11 J	<5 U	<50 U
Methylene Chloride	75-09-2	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Naphthalene	91-20-3	**10**	ug/l	**310**	**32**	7.2	<2.5 U	<250 U	**130**	**46**	**25**	**81**
n-Butylbenzene	104-51-8	**5**	ug/l	**8.8 J**	2.4 J	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	3	<25 U
n-Propylbenzene	103-65-1	**5**	ug/l	**96**	**6.3**	2.8	<2.5 U	<250 U	**140**	<25 U	**15**	**24 J**
o-Xylene (1,2-Dimethylbenzene)	95-47-6	**5**	ug/l	**69**	**17**	**10**	<2.5 U	**2,900**	**1,000**	**500**	**160**	**810**
Sec-Butylbenzene	135-98-8	**5**	ug/l	<25 U	0.97 J	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	2.5	<25 U
Styrene	100-42-5	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
T-Butylbenzene	98-06-6	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Tert-Butyl Methyl Ether	1634-04-4	**10**	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	**14 J**	<2.5 U	<25 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<5 U	<0.5 U	0.18 J	<0.5 U	<50 U	<10 U	<5 U	0.76	1.8 J
Toluene	108-88-3	**5**	ug/l	**89**	**16**	**6.9**	<2.5 U	**8,700**	**1,900**	**1,000**	**100**	**1,900**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Total Xylenes	1330-20-7	**5**	ug/l	**1,300**	**89**	**37**	<2.5 U	**7,700**	**3,200**	**1,200**	**340**	**2,000**
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	<50 U	<10 U	<5 U	<0.5 U	<5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<25 U	<2.5 U	<2.5 UJ	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<5 U	<0.5 U	<0.5 UJ	<0.5 U	<50 U	<10 U	<5 U	<0.5 U	<5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<25 U	<2.5 U	<2.5 U	<2.5 U	<250 U	<50 U	<25 U	<2.5 U	<25 U
Vinyl Acetate	108-05-4	NS	ug/l	<50 U	<5 U	<5 U	<5 U	<500 U	<100 U	<50 U	<5 U	<50 U
Vinyl Chloride	75-01-4	2	ug/l	<10 U	<1 U	<1 U	<1 U	<100 U	<20 U	<10 U	<1 U	<10 U
Total BTEX	BTEX	NS	ug/l	2,188	170	55.9	ND	18,780	5,840	2,715	516	4,510
Total VOCs	TOTAL VOCS	NS	ug/l	4,297.80	453.14	210.59	16.66	19,800.00	8,833.00	3,493.20	1,054.73	5,384.80
General Chemistry												
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	NA	NA	NA	96,000	140,000	85,000	200,000	190,000	110,000

Table 1
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Performance Groundwater Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Post-Injection	Post-Injection	Q1	Q1	Q2	Q2	Q3	Q4
			Location	MW22	MW22	MW22	MW22	MW22	MW22	MW22	MW22	MW22
			Sample Name	MW22_110718	MW22_061920	MW22_04202021	MW22_091621	GWDUP01_091621	MW22_012822	GWDUP01_012822	MW22_041522	MW22_072622
			Sample Date	11/07/2018	06/19/2020	04/20/2021	09/16/2021	09/16/2021	01/28/2022	01/28/2022	04/15/2022	07/26/2022
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<250 U	<120 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	<250 U	<120 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	<50 U	<25 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	<150 U	<75 U	<1.5 U	<1.5 U	<1.5 U	<1.5 UJ	<1.5 UJ	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<250 U	<120 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	<50 U	<25 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	<250 U	<120 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	<250 U	<120 UJ	<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	<250 U	<120 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	**68 J**	**32 J**	**120**	<2 U	<2 U	<2 U	0.58 J	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<250 U	<120 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	**1,400 J**	**900**	**560**	<2.5 U	<2.5 U	<2.5 U	0.89 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<250 U	<120 U	<2.5 UJ	<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	<200 U	<100 U	<2 U	<2 U	<2 U	<2 UJ	<2 UJ	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<250 U	<120 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	<50 U	<25 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	<100 U	<50 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	**390 J**	**250**	**280**	<2.5 U	<2.5 U	<2.5 U	1.4 J	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<250 U	<120 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	<250 U	<120 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	<250 U	<120 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	190 J	96 J	350	<2 U	<2 U	<2 U	2.6	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<25,000 U	<12,000 U	<250 UJ	<250 U	<250 U	<250 UJ	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<250 U	<120 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	<250 U	<120 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	<500 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<250 U	<120 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	1,000	650	530	<2 U	<2 U	<2 U	0.8 J	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	**150 J**	**510**	**110 J**	3 J	12 J	42	**54**	**190**	24
Acrylonitrile	107-13-1	5	ug/l	<500 U	<250 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**2,200**	**3,000**	**58**	**2.1**	**2.8**	**1.5 J**	**4.6 J**	<0.5 U	**1.5**
Bromobenzene	108-86-1	5	ug/l	<250 U	<120 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	<250 U	<120 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	<50 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<200 U	<100 U	<2 UJ	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	**5**	ug/l	<250 U	<120 UJ	1.2 J	1.4 J	0.83 J	4.4 J	2.3 J	<2.5 U	0.85 J
Carbon Disulfide	75-15-0	60	ug/l	<500 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<50 U	<25 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	<250 U	<120 U	<2.5 U	<2.5 U	<2.5 U	3.5	2.1 J	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<250 U	<120 UJ	<2.5 UJ	<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	<250 U	<120 U	3.3	<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	<250 U	<120 U	<2.5 U	2.2 J	1.7 J	0.88 J	0.9 J	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<250 U	<120 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	<50 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Cymene	99-87-6	**5**	ug/l	<250 U	<120 U	**8.4**	<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	<50 U	<25 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	<500 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<500 U	<250 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<250 U	<120 UJ	<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	**920**	**780**	**68**	<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	<250 U	<120 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	<250 U	<120 U	**16**	<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	**4,000**	**3,100**	**350**	<2.5 U	<2.5 U	<2.5 U	0.76 J	<2.5 U	0.8 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	<500 U	<250 U	<5 UJ	<5 U	5.8	4.7 J	14 J	11	6.1
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<500 U	<250 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<250 U	<120 U	<2.5 U	0.84 J	<2.5 U	1.6 J	1.6 J	<2.5 U	<2.5 U
Naphthalene	91-20-3	**10**	ug/l	**360 J**	**240 J**	**83**	<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	<250 U	<120 U	**12**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	**5**	ug/l	**140 J**	**86 J**	**36**	<2.5 U	<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	**2,200**	**1,900**	**230**	<2.5 U	<2.5 U	<2.5 U	0.8 J	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	**5**	ug/l	<250 U	<120 U	**9.9**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<250 U	<120 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	<250 U	<120 U	0.87 J	<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	<250 U	<120 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	<50 U	<25 U	<0.5 U	<0.5 U	<0.5 U	1.5 J	0.33 J	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	**8,000**	**6,100**	**220**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	1.5 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<250 U	<120 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	**6,200**	**5,000**	**580**	<2.5 U	<2.5 U	<2.5 U	1.6 J	<2.5 U	0.8 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<50 U	<25 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	<250 U	<120 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	<50 U	<25 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	<250 U	<120 UJ	<2.5 UJ	<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	<50 U	<25 U	<0.5 UJ	<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	<250 U	<120 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	<500 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<100 U	<50 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
Total BTEX	BTEX	NS	ug/l	17,320	14,880	926	2.1	2.8	1.5	6.16	ND	3.8
Total VOCs	TOTAL VOCS	NS	ug/l	21,018.00	17,644.00	3,046.67	9.54	23.13	60.08	87.66	201.00	34.75
General Chemistry												
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	NA	**31,000,000**	NA	**2,000,000**	**1,800,000**	**590,000**	**680,000**	160,000	**300,000**

Table 1
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Performance Groundwater Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

Analyte	CAS Number	NYSDEC SGVs	Sampling Event	Baseline	Post-Injection	Post-Injection	Q1	Q2	Q3	Q3	Q4	Q4
			Location	MW23	MW23	MW23	MW23	MW23	MW23	MW23	MW23	MW23
			Sample Name	MW23_110718	MW23_061920	MW23_04202021	MW23_091621	MW23_012822	MW23_041522	GWDUP01_041522	MW23_072622	DUP01_072622
			Sample Date	11/07/2018	06/19/2020	04/20/2021	09/16/2021	01/28/2022	04/15/2022	04/15/2022	07/26/2022	07/26/2022
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<38 U	<75 U	<1.5 U	<1.5 U	<1.5 UJ	<1.5 UJ	<1.5 UJ	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	**52 J**	<100 U	**12**	<2 U	<2 U	<2 UJ	<2 UJ	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	**1,600 J**	**94 J**	**49**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<62 U	<120 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<50 U	<100 U	<2 U	<2 U	<2 UJ	<2 UJ	<2 UJ	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<12 U	<25 U	0.22 J	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<25 U	<50 U	<1 U	<1 U	<1 U	<1 UJ	<1 UJ	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	**5**	ug/l	**470 J**	<120 U	**22**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	150	<100 U	31	<2 U	<2 U	<2 UJ	<2 UJ	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<6,200 U	<12,000 U	<250 UJ	<250 U	<250 UJ	<250 UJ	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<62 U	<120 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	**50**	ug/l	<120 U	<250 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	930	<100 U	37	<2 U	<2 U	<2 UJ	<2 UJ	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	<120 U	**190 J**	35 J	3.5 J	40	34 J	**55 J**	46 J	22 J
Acrylonitrile	107-13-1	5	ug/l	<120 U	<250 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**22**	<25 U	**15**	0.16 J	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<62 U	<120 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<50 U	<100 U	<2 UJ	<2 U	<2 U	<2 UJ	<2 UJ	<2 U	<2 U
Bromomethane	74-83-9	**5**	ug/l	<62 U	<120 U	2.5	2.7	**7.5 J**	3.7 J	**7.6 J**	**6.8 J**	4.7 J
Carbon Disulfide	75-15-0	60	ug/l	<120 U	<250 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<62 U	<120 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U
Chloroform	67-66-3	7	ug/l	<62 U	<120 U	1.2 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<62 U	<120 U	<2.5 U	4.1 J	2.7	1.8 J	2.1 J	<2.5 U	0.92 J
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<62 U	<120 U	0.73 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Cymene	99-87-6	**5**	ug/l	<62 U	<120 U	1.3 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<120 U	<250 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<120 U	<250 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	**5**	ug/l	**950**	<120 U	**18**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	**93**	<120 U	2.1 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	**5**	ug/l	**4,000**	**50 J**	**83**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	<120 U	<250 U	<5 UJ	<5 U	18	4.2 J	4.2 J	23	20
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<120 U	<250 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<62 U	<120 U	<2.5 U	0.76 J	2.2 J	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Naphthalene	91-20-3	**10**	ug/l	**440 J**	**47 J**	**13**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	**5**	ug/l	<62 U	<120 U	1.2 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	**5**	ug/l	**150**	<120 U	3.7	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	**5**	ug/l	**700**	<120 U	**48**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	**5**	ug/l	<62 U	<120 U	0.83 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	**10**	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<12 U	<25 U	2.3	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	**300**	<120 U	**54**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<62 U	<120 U	0.73 J	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	**5**	ug/l	**4,700**	**50 J**	**130**	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<62 U	<120 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<12 U	<25 U	**9.3 J**	<0.5 U	<0.5 U	<0.5 UJ	<0.5 UJ	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<120 U	<250 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<25 U	<50 U	<1 U	<1 U	<1 U	<1 UJ	<1 UJ	<1 U	<1 U
Total BTEX	BTEX	NS	ug/l	5,972	50	218	0.16	ND	ND	ND	ND	ND
Total VOCs	TOTAL VOCS	NS	ug/l	9,857.00	381.00	443.11	11.22	70.40	43.70	68.90	75.80	47.62
General Chemistry												
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	NA	NA	NA	**1,500,000**	**1,600,000**	**780,000**	**800,000**	**710,000**	**720,000**

Table 1
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Performance Groundwater Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

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

Table 2
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Qaulity Assurance/Quality Control Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

Analyte	CAS Number	Sampling Event	Q2	Q2	Q3	Q3	Q4	Q4	Q5	Q5	Q6	Q6
		Sample Type	FB	TB	FB	TB	FB	TB	FB	TB	FB	TB
		Sample Name	GWFB01_012822	GWTB01_012822	GWFB01_041522	GWTB01_041522	FB01_072622	TB01_072622	GWFB01_040623	GWTB01_040623	GWFB01_072823	GWTB01_072823
		Sample Date	01/28/2022	01/28/2022	04/15/2022	04/15/2022	07/26/2022	07/26/2022	04/06/2023	04/06/2023	07/28/2023	07/28/2023
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	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
1,1,1-Trichloroethane	71-55-6	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
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2-Trichloroethane	79-00-5	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
1,1-Dichloroethane	75-34-3	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
1,1-Dichloroethene	75-35-4	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-Dichloropropene	563-58-6	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
1,2,3-Trichlorobenzene	87-61-6	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
1,2,3-Trichloropropane	96-18-4	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
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2,4-Trichlorobenzene	120-82-1	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
1,2,4-Trimethylbenzene	95-63-6	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
1,2-Dibromo-3-Chloropropane	96-12-8	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
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2-Dichlorobenzene	95-50-1	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
1,2-Dichloroethane	107-06-2	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-Dichloropropane	78-87-5	ug/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	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
1,3-Dichlorobenzene	541-73-1	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
1,3-Dichloropropane	142-28-9	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
1,4-Dichlorobenzene	106-46-7	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
1,4-Diethyl Benzene	105-05-5	ug/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	<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	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-Chlorotoluene	95-49-8	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-Hexanone (MBK)	591-78-6	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-Chlorotoluene	106-43-4	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
4-Ethyltoluene	622-96-8	ug/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Acetone	67-64-1	ug/l	<5.0 U	<5.0 U	<5.0 U	2.1 J	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Acrylonitrile	107-13-1	ug/l	<5.0 U	<5.0 U	7.2	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Benzene	71-43-2	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Bromobenzene	108-86-1	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
Bromochloromethane	74-97-5	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
Bromodichloromethane	75-27-4	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Bromoform	75-25-2	ug/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Bromomethane	74-83-9	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
Carbon Disulfide	75-15-0	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Carbon Tetrachloride	56-23-5	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Chlorobenzene	108-90-7	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
Chloroethane	75-00-3	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
Chloroform	67-66-3	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
Chloromethane	74-87-3	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
Cis-1,2-Dichloroethene	156-59-2	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
Cis-1,3-Dichloropropene	10061-01-5	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Cymene	99-87-6	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
Dibromochloromethane	124-48-1	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Dibromomethane	74-95-3	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Dichlorodifluoromethane	75-71-8	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Diethyl Ether (Ethyl Ether)	60-29-7	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
Ethylbenzene	100-41-4	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
Hexachlorobutadiene	87-68-3	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
Isopropylbenzene (Cumene)	98-82-8	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
M,P-Xylene	179601-23-1	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
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Methylene Chloride	75-09-2	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
Naphthalene	91-20-3	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
n-Butylbenzene	104-51-8	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
n-Propylbenzene	103-65-1	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
o-Xylene (1,2-Dimethylbenzene)	95-47-6	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
Sec-Butylbenzene	135-98-8	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
Styrene	100-42-5	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
T-Butylbenzene	98-06-6	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
Tert-Butyl Methyl Ether	1634-04-4	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
Tetrachloroethene (PCE)	127-18-4	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Toluene	108-88-3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	0.76 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	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
Total Xylenes	1330-20-7	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
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Trans-1,2-Dichloroethene	156-60-5	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
Trans-1,3-Dichloropropene	10061-02-6	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Trans-1,4-Dichloro-2-Butene	110-57-6	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
Trichloroethene (TCE)	79-01-6	ug/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Trichlorofluoromethane	75-69-4	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
Vinyl Acetate	108-05-4	ug/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Vinyl Chloride	75-01-4	ug/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
General Chemistry												
Sulfate (As SO4)	14808-79-8	ug/l	<10000 U	NA	<10000 U	NA	<10000 U	NA	1700 J	NA	2000 J	NA

Table 2
Quarterly Groundwater Monitoring Report - 5th and 6th Monitoring Events
Qaulity Assurance/Quality Control Sample Analytical Results

561 Greenwich Street
New York , NY
NYSDEC BCP Site No.: C231129
Langan Project No.: 190043702

Notes:
FB - Field Blank
TB - Trip Blank
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Qualifiers:

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

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

ATTACHMENT 1

NYSDEC CORRESPONDENCE

Jack Frey

From: MacCabe, Michael (DEC) <michael.maccabe@dec.ny.gov>
Sent: Friday, December 16, 2022 3:37 PM
To: Elizabeth Adkins
Cc: Michael D. Burke; Paul McMahon; Laura Grose
Subject: [External] RE: C231129 - 561 Greenwich Street - Groundwater Performance Monitoring Report

Lizzie,

Upon review of the December 6 Groundwater Monitoring Report and the data therein, the data show that the groundwater remedy has effectively addressed the groundwater contamination in the proximity of MW22 and MW23. Therefore, the request to discontinue monitoring of both wells is acceptable.

Replacement of MW21 in its immediate proximity with a monitoring well intended to provide better recharge is acceptable. Suspension of the sampling of MW21 until it is replaced is acceptable.

It is understood that all three wells will be properly abandoned.

Thank you,
Michael D. MacCabe, P.E.
Senior Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
518-402-9687 |michael.maccabe@dec.ny.gov
www.dec.ny.gov

From: Elizabeth Adkins <eadkins@langan.com>
Sent: Monday, December 5, 2022 12:26 PM
To: MacCabe, Michael (DEC) <michael.maccabe@dec.ny.gov>
Cc: mburke@langan.com; pmcmahon@langan.com; Laura Grose <lgrose@langan.com>
Subject: C231129 - 561 Greenwich Street - Groundwater Performance Monitoring Report

Michael,

The Quarterly Groundwater Performance Monitoring Report for the 2nd through 4th Quarterly Monitoring Events can be downloaded from the below link for your review and comment. Please note that we are proposing the following:

1. Discontinuing groundwater monitoring in MW22 and MW23 based on consistent groundwater sample results
2. Decommissioning MW22 and MW23 prior to installation of a new sidewalk (anticipated during the first quarter of 2023)
3. Based on the slow recharge rate identified in MW21, we propose temporarily suspending groundwater sample collection from MW21 until a replacement well can be installed concurrent with the new sidewalk early next year. The replacement well will be designed to maximize groundwater recovery during future sampling events.

https://clients.langan.com/Sharing/filesharing/ViewPosted?transactionHash=1532733410

Name	Type	Size
561 Greenwich_Q2-Q4 Groundwater Monitoring Report_DRAFT_2022.12.05.docx	.docx	166.85 KB
561 Greenwich_Q2-Q4 Groundwater Monitoring Report_DRAFT_2022.12.05.pdf	.pdf	27.13 MB

Please let us know if you would like to discuss the results or if you have any questions regarding the above proposal for future quarterly monitoring events.

Best,

Elizabeth Adkins, PE, LEED Green Associate (she/her)
Project Engineer

LANGAN

Direct: 212.479.5445
Mobile: 803.381.5282
File Sharing Link
www.langan.com

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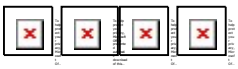


ATTACHMENT 2

MONITORING WELL CONSTRUCTION LOG

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No. MW21A

PROJECT			PROJECT NO.	
561 Greenwich Street			190043704	
LOCATION			**ELEVATION AND DATUM**	
561 Greenwich Street			N/A	
DRILLING AGENCY			**DATE STARTED**	**DATE FINISHED**
Lakewood Environmental Services Corp.			3/10/2023	3/10/2023
DRILLING EQUIPMENT			**DRILLER**	
Geoprobe® 6610 DT			Tim Kelley	
SIZE AND TYPE OF BIT			**INSPECTOR**	
6-inch Hollow Stem Auger			Seyena Simpson	
BOREHOLE DIAMETER			**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
5.625 inches			Overburden	
RISER MATERIAL	**DIAMETER**		**TYPE OF BACKFILL MATERIAL**	
PVC	4-inch		No.2 Sand	
TYPE OF SCREEN	**DIAMETER**	**TYPE OF WELL PACK**		**TYPE OF SEAL MATERIAL**
Sch. 40 PVC 30-slot continuously wrapped	4-inch	Other		Bentonite

METHOD OF INSTALLATION

A Geoprobe 6610 DT was used to advance the boring to approximately 25 feet bgs. A four-inch-diameter PVC monitoring well was installed which consisted of 20 feet of 30-slot (0.030-inch) continuously wrapped well screen, and a solid PVC riser. The well screen was installed from approximately 5 to 25 feet bgs with riser from 5 feet bgs to surface. The well was finished with a flush-mount road box and concrete pad.

WELL DEVELOPMENT DATA

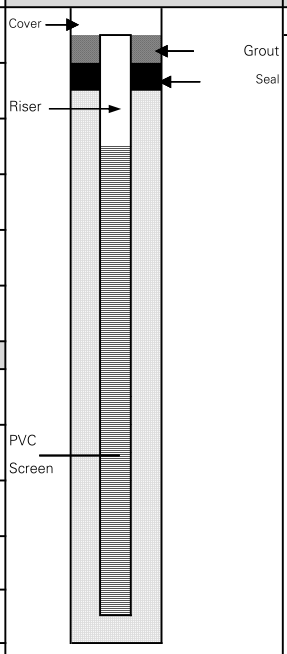
SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	0.44 gpm	Well developed from 1-4 PM until water ran clear. Purged groundwater containerized in 55-gallon drum for off-site disposal.
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	40 gallons	

	ELEVATION	DEPTH (ft)
TOP OF CASING	0	0.0
TOP OF SEAL	N/A	1.0
TOP OF FILTER	.N/A	3.0
TOP OF SCREEN	N/A	5.0
BOTTOM OF BORING	N/A	25.0
SCREEN LENGTH		20
SLOT SIZE		No. 30 Slot, 0.030 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
N/A	3/10/2023	7.2 ft
N/A		
N/A		
N/A		
N/A		
N/A		

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
See boring log	0
	1
	3
	5
	25

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

21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

ATTACHMENT 3

GROUNDWATER SAMPLING LOGS

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	561 Greenwich St	**Well No:**	MW21A	**Water Quality Device Model:**	Horiba U-52	**Weather:**	40-60s °F		MW21A_0406202
Project Number:	190043702	**Well Depth:**	25	**Pine Number:**		**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York, NY	**Well Diameter:**	4-inch	**Pump Make and Model:**	Solinst Peri-Pump	**PID Beneath Inner Cap (ppm):**	29.4		
Sampling	Maitland Robinson	**Well Screen**	5'	**Pine Number:**		**Pump Intake Depth:**	14.8	**Sample Date:**	4/6/2023
Personnel:		**Interval:**	25'	**Tubing Diameter:**	5/8" OD	**Depth to Water Before Purge:**	6.38	**Sample Time:**	9:20

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											
8:15	13.43	6.80	220	0.917	338.0	2.78	6.38		0.5	Slightly turbid	**N/A**
8:20	13.38	8.29	214	0.900	268.0	2.86	6.38	0.05	0.75	Slightly turbid	**N/A**
8:25	13.29	8.87	210	0.895	297.0	1.94	6.38	0.01	0.8	Slightly turbid	**N**
8:30	13.32	9.58	199	0.891	268.0	1.47	6.38	0.09	1.25	Faint petroleum-like odor	**N**
8:35	13.00	9.77	189	0.891	185.0	1.41	6.38	0.15	2	Slightly turbid	**N**
8:40	13.04	9.80	184	0.890	105.0	1.43	6.38	0.05	2.25	Clear	**N**
8:45	12.85	9.83	179	0.891	84.1	1.39	6.38	0.35	4	Clear	**N**
8:50	12.82	9.84	176	0.892	79.8	1.41	6.38	0.1	4.5	Clear	**N**
8:55	12.75	9.83	176	0.892	67.6	1.35	6.38	0.2	5.5	Clear	**N**
9:00	12.70	9.85	174	0.893	64.4	1.44	6.38	0.1	6	Clear	**N**
9:05	12.74	9.86	172	0.894	76.2	1.42	6.38	0.1	6.5	Clear	**N**
9:10	12.61	9.87	171	0.896	52.3	1.53	6.38	0.2	7.5	Clear	**N**
9:15	12.54	9.85	170	0.898	76.2	1.54	6.38	0.15	8.25	Clear	**N**
9:20	Sample collected after purging well for 1 hour										

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	561 Greenwich St	**Well No:**	MW21A	**Water Quality Device Model:**	Horiba U-52	**Weather:**	78-85s °F		MW21A_07282023
Project Number:	190043702	**Well Depth:**	25	**Pine Number:**	FA05384	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York, NY	**Well Diameter:**	4-inch	**Pump Make and Model:**	Solinst Peri-Pump	**PID Beneath Inner Cap (ppm):**	5.8		
Sampling	Jack Frey	**Well Screen**	5	**Pine Number:**	FA04888	**Pump Intake Depth:**	15.0	**Sample Date:**	7/28/2023
Personnel:		**Interval:**	25	**Tubing Diameter:**	0.17"X0.25"	**Depth to Water Before Purge:**	8.42	**Sample Time:**	10:15

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											
9:15	21.07	6.85	-93	2.520	13.0	12.11		0.1	0.5	Yellow water, petroluem-like odor	**N/A**
9:20	20.88	6.78	-105	2.480	8.9	11.22		0.1	0.75		**N/A**
9:25	20.37	6.64	-126	2.450	5.2	10.20		0.1	1		**N**
9:30	20.13	6.72	-132	2.420	7.2	10.15		0.1	1.25		**N**
9:35	20.25	6.74	-138	2.460	5.8	9.84		0.1	1.5		**N**
9:40	20.47	6.76	-147	2.460	4.9	9.64		0.1	1.75		**N**
9:45	20.48	6.76	-147	2.460	4.5	9.52		0.1	2	Clear water, petroluem-like odor	**N**
9:50	20.48	6.76	-147	2.470	8.9	9.28		0.1	2.25		**N**
9:55	20.50	6.76	-147	2.470	9.1	9.25		0.1	2.5		**N**
10:00	20.53	6.76	-147	2.470	9.2	9.23		0.1	2.75		**Y**
10:05	Continued Purging/Sampled at 10:15							0.1	3		**N**
10:10								0.1	3.25		**N**
10:15								0.1	3.5		**N**

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

* DO levels measured during the this sampling event were over 9 mg/L, indicating an equipment malfunction with the Horiba groundwater quality device.

ATTACHMENT 4

DATA USABILITY SUMMARY REPORTS

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: Paul McMahon, Langan Senior Project Manager

From: Joe Conboy, Langan Senior Staff Chemist

Date: May 24, 2023

Re: Data Usability Summary Report
For 561 Greenwich Street
Quarterly Groundwater (Q5) Samples
Langan Project No.: 190043702

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in March 2023 by Langan Engineering and Environmental Services at 561 Greenwich Street. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) and sulfate by the methods specified below.

- VOCs by SW-846 Method 8260C
- Sulfate by Method EPA 9038

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 SDGs 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. No major deficiencies were identified.

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.

Sulfate by Method EPA 9038

L2318150

The MB for batch WG1765180 exhibited a detection of sulfate (as SO4) (1.6 mg/l). The associated results are >10X the contamination. No qualification is necessary.

The FB (GWFB01_040623) exhibited a detection of sulfate (as so4) (1.7 mg/l). The associated results are >10X the contamination. No qualification is necessary.

VOCs by SW-846 Method 8650C

L2318150

The MS/MSD performed on sample MW21A_040623 exhibited percent recoveries outside of control limits for numerous compounds. Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

FIELD DUPLICATE:

There were no field duplicates collected for this sampling event.

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

Signed:

Joe Conboy
Senior Staff Chemist

Data Usability Summary Report
For 561 Greenwich Street
Q5 2023 Groundwater Samples
Table 1: Sample Summary

SDG	Lab Sample ID	Client Sample ID	Sample Date	Validation Level	Analytical Parameters
L2318150	L2318150-01	MW21A_040623	4/6/2023	Tier 1	VOCs, Sulfate
L2318150	L2318150-02	GWTB01_040623	4/6/2023	Tier 1	VOCs
L2318150	L2318150-03	GWFB01_040623	4/6/2023	Tier 1	VOCs, Sulfate

Data Usability Summary Report
For 561 Greenwich Street
Q5 2023 Groundwater Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
No Qualifications Required				

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: Jack Frey, Langan Senior Staff Engineer

From: Joe Conboy, Langan Senior Staff Chemist

Date: September 11, 2023

Re: Data Usability Summary Report
For 561 Greenwich Street
Quarterly Groundwater (Q6) Samples
Langan Project No.: 190043702

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in July 2023 by Langan Engineering and Environmental Services at 561 Greenwich Street. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) and sulfate by the methods specified below.

- VOCs by SW-846 Method 8260D
- Sulfate by SW-846 Method 9038

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. One SDGs 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. No minor deficiencies were identified.

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

L2343606

The MS/MSD performed on sample MW21A_072823 exhibited percent recoveries below the LCL for toluene (0%, 0%), m,p-xylene (50%, 50%), and trans-1,4-dichloro-2-butene (64%). Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

The MS/MSD performed on sample MW21A_072823 exhibited a RPD above the control limit for acetone (24%). Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

Sulfate by SW-846 Method 9038

L2343606

The FB (GWFB01_072823) exhibited a detection of sulfate (as so4) (2.0 mg/l). The associated results are >10X the contamination. No qualification is necessary.

The MB for batch L2343606_WG1810782-1 exhibited a detection of sulfate (as so4) (1.7 mg/l). The associated results are >10X the contamination. No qualification is necessary.

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
Senior Staff Chemist

Data Usability Summary Report
For 561 Greenwich Street
Q6 2023 Groundwater Samples
Table 1: Sample Summary

			Analytical Parameters	VOCs	Sulfate
SDG	**Lab Sample ID**	**Client ID**	**Sample Date**	SW8260D	SW9038
L2343606	L2343606-01	MW21A_072823	7/28/2023	x	x
L2343606	L2343606-02	GWFB01_072823	7/28/2023	x	x
L2343606	L2343606-03	GWTB01_072823	7/28/2023	x	

Data Usability Summary Report
For 561 Greenwich Street
Q6 2023 Groundwater Samples
Table 1: Sample Summary

SDG	Client Sample ID	Analysis	CAS #	Total / Dissolved	Analyte	Validator Qualifier
No qualifications required						

ATTACHMENT 5

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L2318150
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Elizabeth Adkins
Phone:	(212) 479-5400
Project Name:	561 GREENWICH ST
Project Number:	190043702
Report Date:	04/13/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2318150
Report Date: 04/13/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2318150-01	MW21A_040623	WATER	561 GREENWICH ST, NY, NY	04/06/23 09:20	04/06/23
L2318150-02	GWTB01_040623	WATER	561 GREENWICH ST, NY, NY	04/06/23 00:00	04/06/23
L2318150-03	GWFB01_040623	WATER	561 GREENWICH ST, NY, NY	04/06/23 10:00	04/06/23

Project Name:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

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, solids and tissues are reported on a dry 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:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

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.

Volatile Organics

L2318150-01: The acetone and 2-butanone results should be considered estimated due to co-elution with a non-target compound.

The WG1766111-6 MS recoveries, performed on L2318150-01, are outside the acceptance criteria for toluene (0%) and 4-ethyltoluene (0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

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: Michelle M. Morris

Title: Technical Director/Representative Date: 04/13/23

ORGANICS

VOLATILES

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-01
Client ID: MW21A_040623
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 04/06/23 09:20
Date Received: 04/06/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/11/23 15:02
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	0.76		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	31		ug/l	0.50	0.16	1
Toluene	100		ug/l	2.5	0.70	1
Ethylbenzene	45		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	0.77	J	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: 561 GREENWICH ST **Lab Number:** L2318150

Project Number: 190043702 **Report Date:** 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-01 Date Collected: 04/06/23 09:20

Client ID: MW21A_040623 Date Received: 04/06/23

Sample Location: 561 GREENWICH ST, NY, NY Field Prep: Refer to COC

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	0.70	1
p/m-Xylene	180		ug/l	2.5	0.70	1
o-Xylene	160		ug/l	2.5	0.70	1
Xylenes, Total	340		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	44		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	38		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	3.0		ug/l	2.5	0.70	1
sec-Butylbenzene	2.5		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	7.5		ug/l	2.5	0.70	1
p-Isopropyltoluene	2.2	J	ug/l	2.5	0.70	1
Naphthalene	25		ug/l	2.5	0.70	1

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-01
Client ID: MW21A_040623
Sample Location: 561 GREENWICH ST, NY, NY
Date Collected: 04/06/23 09:20
Date Received: 04/06/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	15		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	67		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	120		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	51		ug/l	2.0	0.70	1
p-Ethyltoluene	140		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	22		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	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	97		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-02
Client ID: GWTB01_040623
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 04/06/23 00:00
Date Received: 04/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/11/23 14:12
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: 561 GREENWICH ST **Lab Number:** L2318150

Project Number: 190043702 **Report Date:** 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-02 Date Collected: 04/06/23 00:00

Client ID: GWTB01_040623 Date Received: 04/06/23

Sample Location: 561 GREENWICH ST, NY, NY 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	0.70	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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-02
Client ID: GWTB01_040623
Sample Location: 561 GREENWICH ST, NY, NY
Date Collected: 04/06/23 00:00
Date Received: 04/06/23
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	109		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	119		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-03
Client ID: GWFB01_040623
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 04/06/23 10:00
Date Received: 04/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/11/23 14:37
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: 561 GREENWICH ST **Lab Number:** L2318150

Project Number: 190043702 **Report Date:** 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-03 Date Collected: 04/06/23 10:00

Client ID: GWFB01_040623 Date Received: 04/06/23

Sample Location: 561 GREENWICH ST, NY, NY 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	0.70	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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-03
Client ID: GWFB01_040623
Sample Location: 561 GREENWICH ST, NY, NY
Date Collected: 04/06/23 10:00
Date Received: 04/06/23
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	113		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	118		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/11/23 08:32
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1766111-5					
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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/11/23 08:32
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1766111-5					
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	0.70
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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/11/23 08:32
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1766111-5					
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	114		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	118		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1766111-3 WG1766111-4								
Methylene chloride	94		100		70-130	6		20
1,1-Dichloroethane	99		100		70-130	1		20
Chloroform	94		98		70-130	4		20
Carbon tetrachloride	110		120		63-132	9		20
1,2-Dichloropropane	98		100		70-130	2		20
Dibromochloromethane	87		85		63-130	2		20
1,1,2-Trichloroethane	80		77		70-130	4		20
Tetrachloroethene	95		95		70-130	0		20
Chlorobenzene	88		92		75-130	4		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	96		100		70-130	4		20
1,1,1-Trichloroethane	99		100		67-130	1		20
Bromodichloromethane	91		95		67-130	4		20
trans-1,3-Dichloropropene	76		74		70-130	3		20
cis-1,3-Dichloropropene	89		90		70-130	1		20
1,1-Dichloropropene	93		96		70-130	3		20
Bromoform	73		72		54-136	1		20
1,1,2,2-Tetrachloroethane	76		76		67-130	0		20
Benzene	96		99		70-130	3		20
Toluene	85		87		70-130	2		20
Ethylbenzene	84		88		70-130	5		20
Chloromethane	110		120		64-130	9		20
Bromomethane	68		78		39-139	14		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1766111-3 WG1766111-4								
Vinyl chloride	92		98		55-140	6		20
Chloroethane	84		91		55-138	8		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	98		100		70-130	2		20
Trichloroethene	91		93		70-130	2		20
1,2-Dichlorobenzene	85		88		70-130	3		20
1,3-Dichlorobenzene	86		91		70-130	6		20
1,4-Dichlorobenzene	86		89		70-130	3		20
Methyl tert butyl ether	91		90		63-130	1		20
p/m-Xylene	85		90		70-130	6		20
o-Xylene	85		90		70-130	6		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Dibromomethane	93		96		70-130	3		20
1,2,3-Trichloropropane	73		72		64-130	1		20
Acrylonitrile	100		100		70-130	0		20
Styrene	80		85		70-130	6		20
Dichlorodifluoromethane	93		99		36-147	6		20
Acetone	100		100		58-148	0		20
Carbon disulfide	97		100		51-130	3		20
2-Butanone	99		98		63-138	1		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	81		77		59-130	5		20
2-Hexanone	75		74		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1766111-3 WG1766111-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	86		82		70-130	5		20
1,3-Dichloropropane	81		77		70-130	5		20
1,1,1,2-Tetrachloroethane	87		86		64-130	1		20
Bromobenzene	90		94		70-130	4		20
n-Butylbenzene	80		84		53-136	5		20
sec-Butylbenzene	84		90		70-130	7		20
tert-Butylbenzene	88		92		70-130	4		20
o-Chlorotoluene	83		87		70-130	5		20
p-Chlorotoluene	81		84		70-130	4		20
1,2-Dibromo-3-chloropropane	77		78		41-144	1		20
Hexachlorobutadiene	91		100		63-130	9		20
Isopropylbenzene	86		90		70-130	5		20
p-Isopropyltoluene	84		89		70-130	6		20
Naphthalene	88		90		70-130	2		20
n-Propylbenzene	82		86		69-130	5		20
1,2,3-Trichlorobenzene	89		93		70-130	4		20
1,2,4-Trichlorobenzene	90		95		70-130	5		20
1,3,5-Trimethylbenzene	80		82		64-130	2		20
1,2,4-Trimethylbenzene	81		84		70-130	4		20
1,4-Dioxane	90		90		56-162	0		20
p-Diethylbenzene	85		90		70-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1766111-3 WG1766111-4								
p-Ethyltoluene	85		89		70-130	5		20
1,2,4,5-Tetramethylbenzene	84		89		70-130	6		20
Ethyl ether	91		93		59-134	2		20
trans-1,4-Dichloro-2-butene	88		86		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	95		94		70-130
4-Bromofluorobenzene	95		95		70-130
Dibromofluoromethane	107		110		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

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): 01-03 QC Batch ID: WG1766111-6 WG1766111-7 QC Sample: L2318150-01 Client ID: MW21A_040623												
Methylene chloride	ND	10	9.4	94		9.1	91		70-130	3		20
1,1-Dichloroethane	ND	10	9.7	97		9.2	92		70-130	5		20
Chloroform	ND	10	10	100		9.4	94		70-130	6		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	11	110		10	100		70-130	10		20
Dibromochloromethane	ND	10	10	100		10	100		63-130	0		20
1,1,2-Trichloroethane	ND	10	34	**340**	Q	37	**370**	Q	70-130	8		20
Tetrachloroethene	0.76	10	11	102		12	112		70-130	9		20
Chlorobenzene	ND	10	9.6	96		9.5	95		75-130	1		20
Trichlorofluoromethane	ND	10	10	100		9.9	99		62-150	1		20
1,2-Dichloroethane	ND	10	9.9	99		9.9	99		70-130	0		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
Bromodichloromethane	ND	10	9.1	91		8.9	89		67-130	2		20
trans-1,3-Dichloropropene	ND	10	8.8	88		8.7	87		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.5	95		9.5	95		70-130	0		20
1,1-Dichloropropene	ND	10	11	110		11	110		70-130	0		20
Bromoform	ND	10	8.2	82		8.4	84		54-136	2		20
1,1,2,2-Tetrachloroethane	ND	10	8.4	84		8.6	86		67-130	2		20
Benzene	31	10	40	90		41	100		70-130	2		20
Toluene	100	10	100	**0**	Q	110	100		70-130	10		20
Ethylbenzene	45	10	51	**60**	Q	55	100		70-130	8		20
Chloromethane	ND	10	11	110		11	110		64-130	0		20
Bromomethane	0.77J	10	8.6	86		9.2	92		39-139	7		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

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): 01-03 QC Batch ID: WG1766111-6 WG1766111-7 QC Sample: L2318150-01 Client ID: MW21A_040623												
Vinyl chloride	ND	10	9.5	95		9.1	91		55-140	4		20
Chloroethane	ND	10	8.3	83		8.1	81		55-138	2		20
1,1-Dichloroethene	ND	10	10	100		10	100		61-145	0		20
trans-1,2-Dichloroethene	ND	10	9.8	98		9.6	96		70-130	2		20
Trichloroethene	ND	10	11	110		11	110		70-130	0		20
1,2-Dichlorobenzene	ND	10	9.2	92		9.3	93		70-130	1		20
1,3-Dichlorobenzene	ND	10	9.3	93		9.3	93		70-130	0		20
1,4-Dichlorobenzene	ND	10	9.2	92		9.2	92		70-130	0		20
Methyl tert butyl ether	ND	10	10	100		10	100		63-130	0		20
p/m-Xylene	180	20	190	**50**	Q	200	100		70-130	5		20
o-Xylene	160	20	170	**50**	Q	180	100		70-130	6		20
cis-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Dibromomethane	ND	10	9.6	96		9.5	95		70-130	1		20
1,2,3-Trichloropropane	ND	10	12	120		12	120		64-130	0		20
Acrylonitrile	ND	10	67	**670**	Q	72	**720**	Q	70-130	7		20
Styrene	ND	20	15	75		15	75		70-130	0		20
Dichlorodifluoromethane	ND	10	8.9	89		8.7	87		36-147	2		20
Acetone	44	10	190	**1460**	Q	210E	**1660**	Q	58-148	10		20
Carbon disulfide	ND	10	9.6	96		9.4	94		51-130	2		20
2-Butanone	38	10	39	**10**	Q	42	**40**	Q	63-138	7		20
Vinyl acetate	ND	10	12	120		12	120		70-130	0		20
4-Methyl-2-pentanone	ND	10	10	100		11	110		59-130	10		20
2-Hexanone	ND	10	10	100		11	110		57-130	10		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

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): 01-03 QC Batch ID: WG1766111-6 WG1766111-7 QC Sample: L2318150-01 Client ID: MW21A_040623												
Bromochloromethane	ND	10	10	100		10	100		70-130	0		20
2,2-Dichloropropane	ND	10	8.3	83		8.0	80		63-133	4		20
1,2-Dibromoethane	ND	10	9.9	99		10	100		70-130	1		20
1,3-Dichloropropane	ND	10	9.3	93		9.4	94		70-130	1		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		11	110		64-130	0		20
Bromobenzene	ND	10	9.2	92		9.3	93		70-130	1		20
n-Butylbenzene	3.0	10	11	80		12	90		53-136	9		20
sec-Butylbenzene	2.5	10	11	85		12	95		70-130	9		20
tert-Butylbenzene	ND	10	9.5	95		9.6	96		70-130	1		20
o-Chlorotoluene	ND	10	8.8	88		8.1	81		70-130	8		20
p-Chlorotoluene	ND	10	8.5	85		8.5	85		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	8.0	80		8.2	82		41-144	2		20
Hexachlorobutadiene	ND	10	9.6	96		10	100		63-130	4		20
Isopropylbenzene	7.5	10	16	85		16	85		70-130	0		20
p-Isopropyltoluene	2.2J	10	11	110		12	120		70-130	9		20
Naphthalene	25	10	32	70		34	90		70-130	6		20
n-Propylbenzene	15	10	23	80		24	90		69-130	4		20
1,2,3-Trichlorobenzene	ND	10	9.2	92		9.4	94		70-130	2		20
1,2,4-Trichlorobenzene	ND	10	9.4	94		9.6	96		70-130	2		20
1,3,5-Trimethylbenzene	67	10	74	70		77	100		64-130	4		20
1,2,4-Trimethylbenzene	120	10	130	100		140	**200**	Q	70-130	7		20
1,4-Dioxane	ND	500	400	80		430	86		56-162	7		20
p-Diethylbenzene	51	10	57	**60**	Q	62	110		70-130	8		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

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): 01-03 QC Batch ID: WG1766111-6 WG1766111-7 QC Sample: L2318150-01 Client ID: MW21A_040623												
p-Ethyltoluene	140	10	140	**0**	Q	150	100		70-130	7		20
1,2,4,5-Tetramethylbenzene	22	10	31	90		32	100		70-130	3		20
Ethyl ether	ND	10	9.6	96		9.4	94		59-134	2		20
trans-1,4-Dichloro-2-butene	ND	10	8.2	82		8.5	85		70-130	4		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		95		70-130
4-Bromofluorobenzene	90		90		70-130
Dibromofluoromethane	98		97		70-130
Toluene-d8	97		97		70-130

INORGANICS
&
MISCELLANEOUS

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-01
Client ID: MW21A_040623
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 04/06/23 09:20
Date Received: 04/06/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	190		mg/l	50	6.8	5	04/11/23 10:02	04/11/23 10:02	1,9038	MCU

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2318150-03
Client ID: GWFB01_040623
Sample Location: 561 GREENWICH ST, NY, NY
Sample Depth:
Matrix: Water
Date Collected: 04/06/23 10:00
Date Received: 04/06/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	1.7	J	mg/l	10	1.4	1	04/11/23 10:02	04/11/23 10:02	1,9038	MCU

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2318150
Report Date: 04/13/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01,03 Batch: WG1765180-1										
Sulfate	1.6	J	mg/l	10	1.4	1	04/11/23 10:02	04/11/23 10:02	1,9038	MCU

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 Batch: WG1765180-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2318150
Report Date: 04/13/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1765180-4 QC Sample: L2318150-01 Client ID: MW21A_040623												
Sulfate	190	250	440	98		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2318150

Report Date: 04/13/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1765180-3 QC Sample: L2318150-01 Client ID: MW21A_040623						
Sulfate	190	190	mg/l	0		14

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2318150
Report Date: 04/13/23

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(*)
L2318150-01A	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01A1	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01A2	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01A3	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01B	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01B1	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01B2	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01B3	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01C	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01C1	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01C2	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01C3	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-01D	Plastic 120ml unpreserved	A	7	7	4.8	Y	Absent		SO4-9038(28)
L2318150-01D1	Plastic 120ml unpreserved	A	7	7	4.8	Y	Absent		SO4-9038(28)
L2318150-01D2	Plastic 120ml unpreserved	A	7	7	4.8	Y	Absent		SO4-9038(28)
L2318150-01D3	Plastic 120ml unpreserved	A	7	7	4.8	Y	Absent		SO4-9038(28)
L2318150-02A	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-02B	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-03A	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-03B	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-03C	Vial HCl preserved	A	NA		4.8	Y	Absent		NYTCL-8260(14)
L2318150-03D	Plastic 120ml unpreserved	A	7	7	4.8	Y	Absent		SO4-9038(28)

*Values in parentheses indicate holding time in days

Project Name:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

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

Project Name:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

Data Qualifiers

Identified Compounds (TICs).

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.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	561 GREENWICH ST	**Lab Number:**	L2318150
Project Number:	190043702	**Report Date:**	04/13/23

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 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
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 332: Perchlorate; **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), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, 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.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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: 4/6/23

ALPHA Job #: L2318150

Client Information
Client: Langan Engineering
Address: 560 W 31st St Suite 8, New York 10001
Phone: (212) 479-5400
Fax:
Email: Eadkins@langan.com

Project Information
Project Name: 561 Greenwich St
Project Location: 561 Greenwich St NY, NY
Project #: 1930043702
(Use Project name as Project #) ☑
Project Manager: Elizabeth Adkins
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:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
cc: datamanagement@langan.com & lmcconnell@langan.com

Please specify Metals or TAL.

ANALYSIS
TCL Volatiles EPA 8260D
Sulfide - SM 4500

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

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL Volatiles	Sulfide	Sample Specific Comments
L2318150-01	MW21A_040623	4/6/23	9:20	GW	MR	X	X	Field Filtered/MS/MSD
-02	GWTB01_040623	4/6/23	—	QA/QC	MR	X		
-03	GWFB01_040623	4/6/23	10:00	QA/QC	MR	X	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	V	P											
Preservative	HCl												

Relinquished By:	Date/Time	Received By:	Date/Time
Maitland Robinson	04/06/23 10:15	Oscar	04/06 10:10
Oscar AAL	04/06/23 15:53	Paul Mazzella	4/6/23 16:36
Paul Mazzella 4/6/23		Chris Miller AAL	4/6/23 20:45
Chris Miller AAL 4/6/23	23:15		4/6/23 23:15

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)

ANALYTICAL REPORT

Lab Number:	L2343606
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Elizabeth Adkins
Phone:	(212) 479-5400
Project Name:	561 GREENWICH ST
Project Number:	190043702
Report Date:	08/04/23

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), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2343606-01	MW21A_072823	WATER	561 GREENWICH ST, NY, NY	07/28/23 10:15	07/28/23
L2343606-02	GWFB01_072823	WATER	561 GREENWICH ST, NY, NY	07/28/23 09:45	07/28/23
L2343606-03	GWTB01_072823	WATER	561 GREENWICH ST, NY, NY	07/28/23 00:00	07/28/23

Project Name:	561 GREENWICH ST	**Lab Number:**	L2343606
Project Number:	190043702	**Report Date:**	08/04/23

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, solids and tissues are reported on a dry 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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

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.

Volatile Organics

The WG1810847-6/-7 MS/MSD recoveries, performed on L2343606-01, are outside the acceptance criteria for toluene (0%/0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

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: Ashaley Moynihan

Title: Technical Director/Representative Date: 08/04/23

ORGANICS

VOLATILES

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-01 D
Client ID: MW21A_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 10:15
Date Received: 07/28/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/02/23 04:39
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	1.8	J	ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	300		ug/l	5.0	1.6	10
Toluene	1900		ug/l	25	7.0	10
Ethylbenzene	300		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: 561 GREENWICH ST **Lab Number:** L2343606

Project Number: 190043702 **Report Date:** 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-01 D Date Collected: 07/28/23 10:15

Client ID: MW21A_072823 Date Received: 07/28/23

Sample Location: 561 GREENWICH ST, NY, NY Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	1200		ug/l	25	7.0	10
o-Xylene	810		ug/l	25	7.0	10
Xylenes, Total	2000		ug/l	25	7.0	10
cis-1,2-Dichloroethene	ND		ug/l	25	7.0	10
1,2-Dichloroethene, Total	ND		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	27	J	ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	13	J	ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	81		ug/l	25	7.0	10

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-01 D
Client ID: MW21A_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 10:15
Date Received: 07/28/23
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	24	J	ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	99		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	360		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	35		ug/l	20	7.0	10
p-Ethyltoluene	220		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	14	J	ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-02
Client ID: GWFB01_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 09:45
Date Received: 07/28/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/23 22:01
Analyst: MJV

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: 561 GREENWICH ST **Lab Number:** L2343606

Project Number: 190043702 **Report Date:** 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-02 Date Collected: 07/28/23 09:45

Client ID: GWFB01_072823 Date Received: 07/28/23

Sample Location: 561 GREENWICH ST, NY, NY 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	0.70	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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-02
Client ID: GWFB01_072823
Sample Location: 561 GREENWICH ST, NY, NY
Date Collected: 07/28/23 09:45
Date Received: 07/28/23
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	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	109		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-03
Client ID: GWTB01_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 00:00
Date Received: 07/28/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/01/23 22:26
Analyst: MJV

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: 561 GREENWICH ST **Lab Number:** L2343606

Project Number: 190043702 **Report Date:** 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-03 Date Collected: 07/28/23 00:00

Client ID: GWTB01_072823 Date Received: 07/28/23

Sample Location: 561 GREENWICH ST, NY, NY 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	0.70	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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-03
Client ID: GWTB01_072823
Sample Location: 561 GREENWICH ST, NY, NY
Date Collected: 07/28/23 00:00
Date Received: 07/28/23
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	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	112		70-130

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/23 21:24
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1810847-5					
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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/23 21:24
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1810847-5					
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	0.70
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: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 08/01/23 21:24
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1810847-5					
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	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1810847-3 WG1810847-4								
Methylene chloride	120		110		70-130	9		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	95		100		70-130	5		20
Dibromochloromethane	81		83		63-130	2		20
1,1,2-Trichloroethane	85		89		70-130	5		20
Tetrachloroethene	95		95		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	89		84		62-150	6		20
1,2-Dichloroethane	95		95		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	91		96		67-130	5		20
trans-1,3-Dichloropropene	83		85		70-130	2		20
cis-1,3-Dichloropropene	90		95		70-130	5		20
1,1-Dichloropropene	97		96		70-130	1		20
Bromoform	77		81		54-136	5		20
1,1,2,2-Tetrachloroethane	89		92		67-130	3		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	90		84		64-130	7		20
Bromomethane	75		72		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1810847-3 WG1810847-4								
Vinyl chloride	71		69		55-140	3		20
Chloroethane	84		78		55-138	7		20
1,1-Dichloroethene	120		110		61-145	9		20
trans-1,2-Dichloroethene	120		110		70-130	9		20
Trichloroethene	88		87		70-130	1		20
1,2-Dichlorobenzene	98		99		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	99		99		70-130	0		20
Methyl tert butyl ether	90		95		63-130	5		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	120		110		70-130	9		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	86		91		64-130	6		20
Acrylonitrile	100		100		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	88		86		58-148	2		20
Carbon disulfide	120		110		51-130	9		20
2-Butanone	72		84		63-138	15		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	78		78		59-130	0		20
2-Hexanone	68		74		57-130	8		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1810847-3 WG1810847-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	85		87		70-130	2		20
1,3-Dichloropropane	86		88		70-130	2		20
1,1,1,2-Tetrachloroethane	85		85		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	110		100		53-136	10		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	82		90		41-144	9		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	100		100		70-130	0		20
n-Propylbenzene	110		100		69-130	10		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		100		70-130	0		20
1,4-Dioxane	112		110		56-162	2		20
p-Diethylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1810847-3 WG1810847-4								
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	94		94		70-130	0		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	75		77		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	101		103		70-130
Dibromofluoromethane	104		102		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

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): 01-03 QC Batch ID: WG1810847-6 WG1810847-7 QC Sample: L2343606-01 Client ID: MW21A_072823												
Methylene chloride	ND	100	100	100		110	110		70-130	10		20
1,1-Dichloroethane	ND	100	100	100		110	110		70-130	10		20
Chloroform	ND	100	100	100		110	110		70-130	10		20
Carbon tetrachloride	ND	100	120	120		120	120		63-132	0		20
1,2-Dichloropropane	ND	100	92	92		100	100		70-130	8		20
Dibromochloromethane	ND	100	92	92		100	100		63-130	8		20
1,1,2-Trichloroethane	ND	100	94	94		110	110		70-130	16		20
Tetrachloroethene	1.8J	100	100	100		120	120		70-130	18		20
Chlorobenzene	ND	100	97	97		110	110		75-130	13		20
Trichlorofluoromethane	ND	100	110	110		120	120		62-150	9		20
1,2-Dichloroethane	ND	100	100	100		110	110		70-130	10		20
1,1,1-Trichloroethane	ND	100	110	110		120	120		67-130	9		20
Bromodichloromethane	ND	100	100	100		110	110		67-130	10		20
trans-1,3-Dichloropropene	ND	100	89	89		100	100		70-130	12		20
cis-1,3-Dichloropropene	ND	100	88	88		100	100		70-130	13		20
1,1-Dichloropropene	ND	100	98	98		110	110		70-130	12		20
Bromoform	ND	100	88	88		100	100		54-136	13		20
1,1,2,2-Tetrachloroethane	ND	100	86	86		100	100		67-130	15		20
Benzene	300	100	380	80		390	90		70-130	3		20
Toluene	1900	100	1900	**0**	Q	1900	**0**	Q	70-130	0		20
Ethylbenzene	300	100	370	70		390	90		70-130	5		20
Chloromethane	ND	100	88	88		92	92		64-130	4		20
Bromomethane	ND	100	96	96		100	100		39-139	4		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

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): 01-03 QC Batch ID: WG1810847-6 WG1810847-7 QC Sample: L2343606-01 Client ID: MW21A_072823												
Vinyl chloride	ND	100	87	87		88	88		55-140	1		20
Chloroethane	ND	100	99	99		110	110		55-138	11		20
1,1-Dichloroethene	ND	100	110	110		120	120		61-145	9		20
trans-1,2-Dichloroethene	ND	100	110	110		110	110		70-130	0		20
Trichloroethene	ND	100	89	89		100	100		70-130	12		20
1,2-Dichlorobenzene	ND	100	95	95		100	100		70-130	5		20
1,3-Dichlorobenzene	ND	100	96	96		110	110		70-130	14		20
1,4-Dichlorobenzene	ND	100	95	95		110	110		70-130	15		20
Methyl tert butyl ether	ND	100	97	97		110	110		63-130	13		20
p/m-Xylene	1200	200	1300	**50**	Q	1300	**50**	Q	70-130	0		20
o-Xylene	810	200	950	70		980	85		70-130	3		20
cis-1,2-Dichloroethene	ND	100	110	110		110	110		70-130	0		20
Dibromomethane	ND	100	97	97		100	100		70-130	3		20
1,2,3-Trichloropropane	ND	100	86	86		100	100		64-130	15		20
Acrylonitrile	ND	100	110	110		120	120		70-130	9		20
Styrene	ND	200	200	100		220	110		70-130	10		20
Dichlorodifluoromethane	ND	100	95	95		100	100		36-147	5		20
Acetone	ND	100	120	120		94	94		58-148	**24**	Q	20
Carbon disulfide	ND	100	100	100		110	110		51-130	10		20
2-Butanone	27J	100	100	100		100	100		63-138	0		20
Vinyl acetate	ND	100	120	120		130	130		70-130	8		20
4-Methyl-2-pentanone	ND	100	78	78		92	92		59-130	16		20
2-Hexanone	ND	100	70	70		80	80		57-130	13		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

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): 01-03 QC Batch ID: WG1810847-6 WG1810847-7 QC Sample: L2343606-01 Client ID: MW21A_072823												
Bromochloromethane	ND	100	110	110		120	120		70-130	9		20
2,2-Dichloropropane	ND	100	100	100		110	110		63-133	10		20
1,2-Dibromoethane	ND	100	89	89		100	100		70-130	12		20
1,3-Dichloropropane	ND	100	86	86		100	100		70-130	15		20
1,1,1,2-Tetrachloroethane	ND	100	100	100		120	120		64-130	18		20
Bromobenzene	ND	100	97	97		110	110		70-130	13		20
n-Butylbenzene	ND	100	96	96		110	110		53-136	14		20
sec-Butylbenzene	ND	100	98	98		110	110		70-130	12		20
tert-Butylbenzene	ND	100	97	97		110	110		70-130	13		20
o-Chlorotoluene	ND	100	90	90		100	100		70-130	11		20
p-Chlorotoluene	ND	100	95	95		110	110		70-130	15		20
1,2-Dibromo-3-chloropropane	ND	100	90	90		96	96		41-144	6		20
Hexachlorobutadiene	ND	100	100	100		120	120		63-130	18		20
Isopropylbenzene	13J	100	110	110		120	120		70-130	9		20
p-Isopropyltoluene	ND	100	100	100		120	120		70-130	18		20
Naphthalene	81	100	200	119		210	129		70-130	5		20
n-Propylbenzene	24J	100	120	120		130	130		69-130	8		20
1,2,3-Trichlorobenzene	ND	100	100	100		110	110		70-130	10		20
1,2,4-Trichlorobenzene	ND	100	100	100		110	110		70-130	10		20
1,3,5-Trimethylbenzene	99	100	190	91		200	101		64-130	5		20
1,2,4-Trimethylbenzene	360	100	440	80		450	90		70-130	2		20
1,4-Dioxane	ND	5000	5400	108		4800	96		56-162	12		20
p-Diethylbenzene	35	100	140	105		150	115		70-130	7		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

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): 01-03 QC Batch ID: WG1810847-6 WG1810847-7 QC Sample: L2343606-01 Client ID: MW21A_072823												
p-Ethyltoluene	220	100	300	80		320	100		70-130	6		20
1,2,4,5-Tetramethylbenzene	14J	100	130	130		130	130		70-130	0		20
Ethyl ether	ND	100	94	94		100	100		59-134	6		20
trans-1,4-Dichloro-2-butene	ND	100	64	**64**	Q	74	74		70-130	14		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		98		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	100		97		70-130
Toluene-d8	100		100		70-130

INORGANICS
&
MISCELLANEOUS

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-01
Client ID: MW21A_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 10:15
Date Received: 07/28/23
Field Prep: None

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	110		mg/l	50	6.8	5	08/02/23 15:00	08/02/23 15:00	1,9038	MRW

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

SAMPLE RESULTS

Lab ID: L2343606-02
Client ID: GWFB01_072823
Sample Location: 561 GREENWICH ST, NY, NY

Date Collected: 07/28/23 09:45
Date Received: 07/28/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	2.0	J	mg/l	10	1.4	1	08/02/23 15:00	08/02/23 15:00	1,9038	MRW

Project Name: 561 GREENWICH ST
Project Number: 190043702
Lab Number: L2343606
Report Date: 08/04/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1810782-1										
Sulfate	1.7	J	mg/l	10	1.4	1	08/02/23 15:00	08/02/23 15:00	1,9038	MRW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1810782-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1810782-4 QC Sample: L2343606-01 Client ID: MW21A_072823												
Sulfate	110	200	310	100		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 561 GREENWICH ST

Project Number: 190043702

Lab Number: L2343606

Report Date: 08/04/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1810782-3 QC Sample: L2343606-01 Client ID: MW21A_072823						
Sulfate	110	110	mg/l	0		14

Project Name: 561 GREENWICH ST
Project Number: 190043702

Lab Number: L2343606
Report Date: 08/04/23

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(*)
L2343606-01A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01A1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01A2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01B1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01B2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01C1	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01C2	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-01D	Plastic 120ml unpreserved	A	7	7	3.8	Y	Absent		SO4-9038(28)
L2343606-01D1	Plastic 120ml unpreserved	A	7	7	3.8	Y	Absent		SO4-9038(28)
L2343606-01D2	Plastic 120ml unpreserved	A	7	7	3.8	Y	Absent		SO4-9038(28)
L2343606-02A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-02B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-02C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-02D	Plastic 120ml unpreserved	A	7	7	3.8	Y	Absent		SO4-9038(28)
L2343606-03A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2343606-03B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	561 GREENWICH ST	**Lab Number:**	L2343606
Project Number:	190043702	**Report Date:**	08/04/23

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

Project Name:	561 GREENWICH ST	**Lab Number:**	L2343606
Project Number:	190043702	**Report Date:**	08/04/23

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	561 GREENWICH ST	**Lab Number:**	L2343606
Project Number:	190043702	**Report Date:**	08/04/23

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:	561 GREENWICH ST	**Lab Number:**	L2343606
Project Number:	190043702	**Report Date:**	08/04/23

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, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; 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.
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, SM9221E, 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.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

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: 7/28/23

ALPHA Job #: L2343606

Client Information
Client: Langan
Address: 360 W 31st Street Suite 8, NY, NY, 10001
Phone: (212) 479-5400
Fax:
Email: EAdkins@Langan.com

Project Information
Project Name: 561 Greenwich St.
Project Location: 561 Greenwich St. NY, NY
Project #: 190043702
(Use Project name as Project #) ☐
Project Manager: Elizabeth Adkins
ALPHAQuote #:

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

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other ASP-B

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☑ Other NY TOGS

Billing Information
☑ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
cc: Jfrey@Langan.com &
Please specify Metals or TAL.
Datamanagement@Langan.com

ANALYSIS

Sample Filtration
☑ Done ← N/A
☐ 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	TCL VOCs-8260	Sulfate-9056	Total Bottle	Sample Specific Comments
43606-01	MW21A-072823	7/28/23	10:15	GW	JF	X	X		MS/MSD
02	GWFB01L-072823	↓	9:45	AQ	JF	X	X		
03	TBLKFB01-072823	↓		AQ	JF	X			
									No Field Filter

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
Jack Frey	7/28/23 11:11		
Paul Mazzella	7/28/23 12228	Paul Mazzella	7/28/23 1105
	7/28/23 2030		7/28/23 2030

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: 01-14 HC (rev. 30-Sept-2013)