STRUCTURAL
ENGINEERING
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September 8, 2023

Wendi Zheng
New York State Department of Environmental Conservation
47-20 21st Street
Long Island City, New York 11101

Re: Groundwater Remediation Supplemental RAWP Addendum
Former Pfizer Site C – C224288

Dear Ms. Zheng:

This Supplemental Remedial Action Work Plan ("RAWP") Addendum letter is intended to provide you with our Volunteer team's proposed groundwater Supplemental Remedial Action (RA) for an additional remedial injection at the above referenced BCP Site, Former Pfizer Site C – BCP Site No. C224288. In June, July, and August 2022, an initial remedial injection of Regenisis's PetroFix Remediation fluid was performed in accordance with the NYSDEC approved August 2021 RAWP into the groundwater beneath the Track 4 Area (Building E). The results of first, second, and third quarterly 2023 sampling events indicate the injections were successful in remediating the groundwater in the northeast portion of the Track 4 Area. However, the shallow and deeper groundwater in the southern portion of the Track 4 Area still contains elevated levels of benzene. The purpose of this Supplemental groundwater RAWP Addendum is to perform an additional injection of Sulfate BioChem (SBC) to further remediate the levels of Benzene in the groundwater beneath the southern portion of the Track 4 Area.

Site History/Current Groundwater Conditions

A component of the August 2021 RAWP was the performance of remedial injections beneath the proposed Building E Area (Track 4 Area) using Regenesis' PetroFix Remediation fluid. The injection work was performed in June, July, and August of 2022. The PetroFix was injected into the groundwater with a Geoprobe in accordance with the manufacturer's Site-specific recommendations. The injections occurred in two treatment areas within the Track 4 Area. Treatment Area 1 was

approximately 3,000-square feet in area and extended from 9 to 30 feet below grade in the southern portion of Building E area along Gerry Street. Treatment in this area was intended to remediate the elevated levels of Benzene identified in the shallow and deep groundwater in the area around 19MW17S and 19MW17D. Treatment Area 2 was approximately 9,000-square feet in area and extended from 8 to 20 feet below grade in the remaining portion of the Building E area. Treatment in Treatment Area 2 was intended to remediate elevated levels of petroleum compounds identified in 19MW2 and 19MW3. **Figure 1** provides a plan showing the Petro Fix Injection areas.

Following the performance of the injections and the planned soil remediation work, monitoring wells 19MW2, 19MW3, 19MW17S, and 19MW17D were reinstalled within the Track 4 Area in June 2022. Monitoring wells 19MW2 and 19MW3 were installed to the east of Union Avenue and Monitoring wells 19MW17S and 19MW17D were installed to the northwest of Gerry Street. Monitoring wells 19MW2, 19MW3, and 19MW7 were installed to a depth of approximately 20-feet below grade, have a 2-inch diameter, and consist of 15-feet of 0.01-inch sotted screen and 5-feet of riser and monitoring well 19MW17D was installed to approximately 30-feet below grade, has a 2-inch diameter, and consist of 5-feet of 0.01-inch sotted screen and 25-feet of riser.

Monitoring well 19MW30 was installed in July 2022 within the basement of Building A to a depth of approximately 20-feet below grade, has a 2-inch diameter, and consists of 15-feet of 0.01-inch sotted screen and 5-feet of riser.

During a July 13, 2023 call with the NYSDEC, S.E.T. discussed the installation of the remaining monitoring wells in the Track 2 Area. Monitoring wells 19MW5, 19MW7, 19MW16, 19MW32, 21MW1, 21MW2, and 21MW3 were unable to be installed during the construction of the buildings in the Track 2 Area. Since the foundations of the buildings within the Track 2 Area are below the water table, the NYSDEC approved the relocation of the remaining monitoring wells to the outside of the basement walls but within the footprint of the Site so that the waterproofing and vapor barriers would not be disturbed.

Upon approval by the NYSDEC, monitoring well 19MW5 was installed between the Support of Excavation (SOE) sheet piles and the foundation wall of Building D along Wallabout Street; monitoring well 19MW7 was installed between the SOE and the foundation wall of Building B along

Wallabout Street; monitoring well 21MW3 was installed between the SOE and the foundation wall of Building A along Harrison Avenue; and monitoring well 19MW16 was installed between the SOE and the foundation wall of Building C along Gerry Street.

Monitoring wells 19MW5, 19MW7, 19MW16, and 21MW3 were installed to a depth of approximately 20-feet below grade, are 1-inch diameter, and consist of 15-feet of 0.01-inch sotted screen and 5-feet of riser. Monitoring wells 21MW1, 21MW2, and 19MW32 were removed from the installation plans due to the inability to puncture the building slab and vapor barrier in Track 2 Area.

The monitoring wells within the Track 4 Area (Building E), 19MW2, 19MW3, 19MW17S, 19MW17D were sampled on January 18, 2023, April 20, 2023 and August 1, 2023. The recently installed monitoring wells, 19MW5, 19MW7, 21MW3, 19MW30 and 19MW16 were sampled only on August 1, 2023.

Injection wells were installed in the southeast portion of the Track 4 area in the vicinity of 19MW17S and 19MW17D. The injection wells are screened from 5 feet to 30 feet below grade and are 2 inches in diameter.

Groundwater Sampling Results

Track 4 Area – Building E

The monitoring wells within the Track 4 Area (Building E), 19MW2, 19MW3, 19MW17S and 19MW17D were sampled in January 2023, April 2023, and August 2023. **Table 1** provides the depth to water and groundwater readings from each well. The results are provided in **Tables 2A, Table 2B, Table 2F and Table 2G**. **Figure 1** provides a groundwater contamination diagram.

The results show the petrofix injection was successful in treating the levels of Benzene in the Treatment Area 2 located in northern portion of the Track 4 area. This is evidenced by a trending decrease in VOCs, including benzene in the two wells located in the northern portion of the Track 4 Area (19MW2 and 19MW3). In December 2020, prior to the injections, the concentration in 19MW3 of Benzene was 4.670 micrograms per liter (ug/L), while in the August 2023 sampling event, the concentration of Benzene in 19MW3 was reduced to 2.750 ug/L. In December 2020, multiple VOCs

were present in 19MW2, including Acetone (974 ug/L), Benzene (3.940 ug/L), Isopropylbenzene (67.80 ug/L), Naphthalene (56.3 ug/L), n-Butylbenzene (5.94 ug/L), n-Propylbenzene (66 ug/L), sec-Butylbenzene (39.60 ug/L) and tert-Butylbenzene (9.080 ug/L). Following the injections, the only remaining VOC in 19MW2 was Acetone, which was identified in January 2023 (60.2 ug/L), April 2023 (45.7 ug/L) and August 2023 (54.4 ug/L). Acetone is a commonly known laboratory cleaner used to clean sampling vials. Based upon discussions with Regenesis, the levels of acetone may be related to the oxidation of petroleum compounds in the groundwater.

The petrofix injection was also successful in remediating the majority of VOCs from the southeast portion of the Track 4 area near the former UST excavation, as evidenced by the results of 19MW17S and 19MW17D. Monitoring well 19MW17S is screened from 5 to 15 feet below grade and Monitoring well 19MW17D is screened from 20 to 25 feet below grade.

Prior to the Petrofix injection in December 2020, monitoring well 19MW17S contained levels of VOCs, including Isopropylbenzene (46.30 ug/L), n-Butylbenzene (7.280 ug/L), n-Propylbenzene (29.70 ug/L), sec-Butylbenzene (42.50 ug/L), and tert-Butylbenzene (5.160 ug/L) at concentrations exceeding the NYSDEC TOGS Standards. In January 2023, no VOCs were detected at concentrations exceeding their respective TOGS Standards in 19MW17S. In April 2023, the compounds, 1,2-Dichlorobenzene (0.820 ug/L), Acetone (698 ug/L), benzene (26 ug/L) and tert-Butylbenzene (5.880 ug/L) were identified in 19MW17S at concentrations exceeding the TOG Standards and in August 2023 benzene (18.2 ug/L) and chlorobenzene (6.1 ug/L) were identified in 19MW17S at concentrations exceeding their groundwater quality standards.

Prior to the injections in December 2020, benzene was detected at a low level of 6.350 ug/L in 19MW17D. However, following the injections in Treatment Area 1, the level of benzene in 19MW17D increased to 1,570 ug/L in January 2023 and to 11,900 ug/L in April 2023. In August 2023, the level of benzene in 19MW17D decreased to 7,880 ug/L.

Therefore, based upon the levels of benzene identified in 19MW17S (18.2 ug/L) and 19MW17D (7,880 ug/L) in August 2023, additional remedial injections are required to further remediate the groundwater in Treatment Area 1.

Track 2 Area Buildings A, B, C & D

The monitoring wells in the Track 2 Area, 19MW5, 19MW7, 21MW3, 19MW30 and 19MW16 were sampled on August 1, 2023. **Table 1** provides the depth to water and groundwater readings from each well. The tabulated results comparing the analytical data to the NYSDEC TOGS Standards are provided on **Table 2C**, **Table 2D**, **Table 2E**, **Table 2H** and **Table 2I.** **Figure 1** provides a groundwater contamination diagram.

The results of the groundwater testing indicate low levels of gasoline compounds, including benzene, are present in the upgradient portion of the Track 2 area near Wallabout Street. For example, benzene was detected at a concentration of 16 ug/L in 19MW-5 and 8.43 ug/L in 19MW7 Benzene was also detected in the downgradient portion of the Site in 21MW3 (11 ug/L) and 19MW30 (2.13 ug/L). Benzene was not detected in 19MW16. Other petroleum VOCS including O-Xylene (36.40 ug/L in 19MW5), Ethyl Benzene (24 ug/L in MW-5), Chlorobenzene (8.35 ug/L in 19MW-5, 0.53 in 19MW-7 and 35.80 in 21MW-3) were identified in the groundwater. Based upon the presence of a vapor barrier and water proofing membrane beneath the building slabs in the Track 2 area, further remediation of the groundwater through remedial injections is not possible. However, the additional remediation of Treatment Area 1 located in the Track 4 Area (may) should serve to further reduce these residual groundwater concentrations over time.

S.E.T. notes that elevated levels of acetone were detected in the groundwater during the August 2023 sampling event. The detected acetone concentrations ranged from 19.40 ug/L in 19MW17S to 4,680 ug/L in 19MW16. Based upon discussions with Regenisis, the levels of acetone may be related to the oxidation of petroleum compounds in the groundwater.

Appendix A provides the Laboratory Data.

Figure 2 provides a spider diagram of the groundwater results over time.

Supplemental Remedial Injection in Treatment Area 1

In July 2023, groundwater from 19MW17S and 19MW17D was analyzed for total sulfate and sulfate reducing bacteria. The results indicate sulfate is present in 19MW17S at a concentration of 22.7 ug/L

and in 19MW17D at a concentration of 102 ug/L. The results of the sulfate reducing bacteria testing indicate that the requisite bacteria are present in the groundwater to change the in-situ treatment methodology to Sulfate BioChem (SBC) produced by Redox Tech, LLC. The SBC is a mixture of sodium persulfate and calcium peroxide. The SBC should work with the naturally reducing conditions to promote anaerobic biological oxidation of the benzene.

The mixture in SBC supports anaerobic oxidation conditions and delivers oxygen (soluble sulfates) for long-term biological oxidation under anaerobic conditions. SBC contains several soluble sulfur salts each with a different purpose. Magnesium sulfate (epsom salts) provides the main source of sulfate electron acceptors as well as magnesium, which is essential for cell growth and function. Other sulfur compounds in the mixture help to achieve and maintain the proper redox conditions for anaerobic oxidation of petroleum compounds by sulfate reduction. During anaerobic oxidation, petroleum utilizes the oxygen on the sulfate to convert to harmless carbon dioxide and water.

Based upon our conversations with Redox Tech, LLC, Petrofix uses this sulfate reduction process to a limited degree by adding a small amount of sulfate to the activated carbon, so the sulfate reduction process was already used at the site. We are proposing to add much more soluble sulfate in our SBC formula to enhance the oxidation by sulfate reduction. Since Petrofix relies primarily on sorption to activated carbon and only a little bit on sulfate reduction, any contaminant that was sorbed to the activated carbon can and will ultimately be released during the desorption process. With SBC, we only rely on oxidation by sulfate reduction, not sorption. It should not affect the sorption capacity of the activated carbon from the Petrofix (since it is already desorbing producing rebound of contaminant concentrations as we understand), and it will only increase the amount of sulfate that was originally introduced by the Petrofix and so enhance oxidation by sulfate reduction.

SCB was used to oxidize petroleum contaminants by sulfate reduction in NY state as early as 2012 with Longworth Environmental at NYSDEC Spill Site 01-03021, 1859 State Street in Schenectady, New York. The spill file was closed on May 4, 2016.

In accordance with manufacturer's specifications, the SBC will be injected with a Geoprobe into 4 existing injection wells located in the Treatment Area 1 southern portion of the Track 4 Area near

19MW17S and 19MW17D. Approximately 1,000-gallons of SBC will be injected into each injection well.

Attachment B provides information on SBC.

Upon the NYSDEC approval of this Supplemental groundwater RAWP Addendum, the injections will be performed. It is expected to take up to 2 to 3 months for the injection to begin remediating the elevated levels of Benzene. We will continue the monthly monitoring and quarterly sampling of the groundwater. The next scheduled monthly monitoring is scheduled for November 2023. These results are scheduled to be submitted into the FER and submitted to the NYSDEC prior to the end of November 2023. A schedule is provided in **Attachment C**.

Respectfully Yours,

STRUCTURAL ENGINEERING TECHNOLOGIES, P.C.

George J. Cambourakis, P.E., C. Eng.

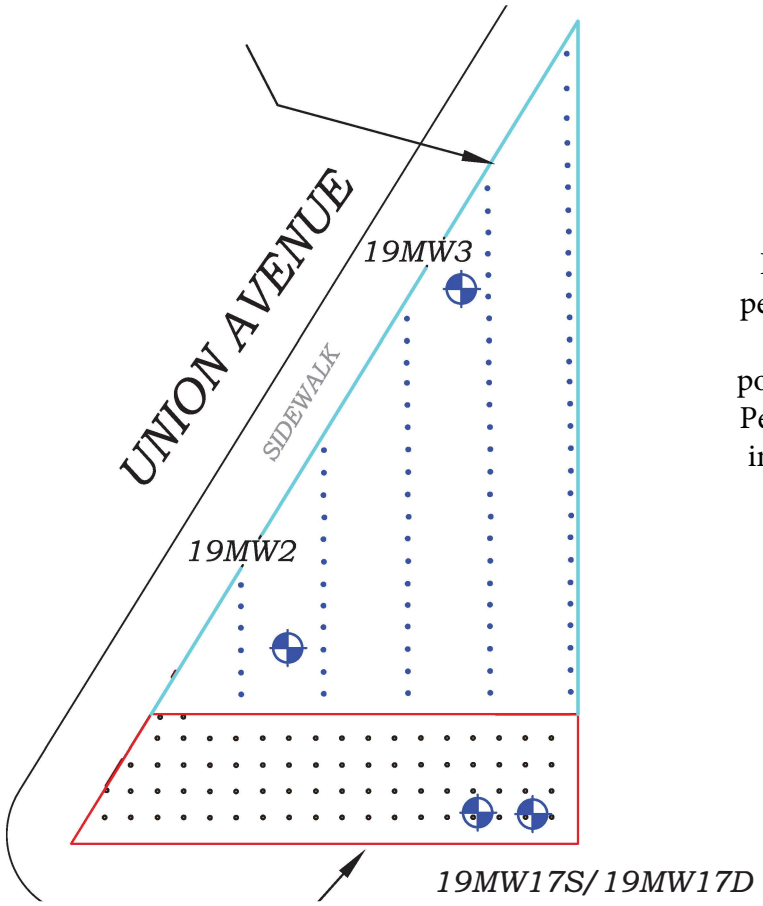
President

Figures

NYSDEC BCP
SITE # C224288

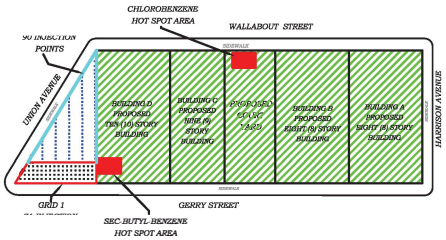
TREATMENT AREA 2

Approximately 9,000-square feet in area and extended from 8 to 20 feet below grade in the remaining portion of the Building E area



TREATMENT AREA 1

Approximately 3,000-square feet in area and extended from 9 to 30 feet below grade in the southern portion of Building E area along Gerry Street.



Description of the Injection

In Situ Chemical Oxidation (ISCO) injections were performed in June, July and August of 2022 to address petroleum impacted groundwater in the Track 4 portion of the Site beneath Building E using Regenesis' PetroFix Remediation fluid. The PetroFix was injected into the groundwater with a Geoprobe in accordance with the manufacturer's Site-specific recommendations. The injections occurred in two treatment areas within the Track 4 Area.

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NO. DATE DESCRIPTION
REVISIONS:
FILINGS:
PROJECT

334 WALLABOUT STREET, BROOKLYN, N.Y. 11206

DRAWING TITLE:
Figure 2:
Location of Petrofix Chemical Injections

SEAL & SIGNATURE

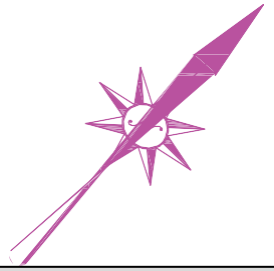
DATE: 02-08-21
PROJECT NO:
SCALE: AS NOTED
DRAWING BY: A.M.C.
CHECKED BY: G.J.C.
DWG NO:

SHEET N : OF 20

BSCAN STICKER

DOB APPROVAL STAMP

NYSDEC BCP
SITE # C224288



19MW2					
VOCs (ug/L)					
COMPOUND	12/03/2020	01/18/2023	04/20/2023	08/01/2023	NYSDEC TOGS
Acetone	974	60.20	45.70	54.40	50
Benzene	3.90	ND	ND	ND	1
Isopropyl benzene	67.80	ND	ND	ND	5
Naphthalene	56.30	ND	ND	ND	10
n-Butylbenzene	5.940	ND	ND	ND	5
n-Propyl benzene	66	ND	ND	ND	5
sec-Butylbenzene	39.60	ND	0.52	ND	5
tert-Butylbenzene	9.08	ND	0.39	ND	5

19MW3					
VOCs (ug/L)					
COMPOUND	12/03/2020	01/18/2023	04/20/2023	08/01/2023	NYSDEC TOGS
Acetone	53.10	60.30	18.40	44	50
Benzene	4.67	5.46	3.38	2.75	1
Chloroform	ND	12.10	ND	ND	7

19MW5			
VOCs (ug/L)			
COMPOUND	12/15/2020	08/01/2023	NYSDEC TOGS
Acetone	153	182	50
Benzene	1.47	16	1
Chlorobenzene	ND	8.35	5
Ethyl benzene	ND	24	5
o-Xylene	ND	36.40	5
Xylenes, Total	ND	129	5

19MW7			
VOCs (ug/L)			
COMPOUND	12/11/2020	08/01/2023	NYSDEC TOGS
Acetone	2.80	62	50
Benzene	3.06	8.43	1
Chlorobenzene	1,750	0.53	5
Xylenes, Total	ND	8.31	5

WALLABOUT STREET

EXIST. CONC SIDEWALK

19MW5

19MW7

21MW3

19MW3

UNION AVENUE

EXIST. CONC SIDEWALK

HARRISON AVENUE

EXIST. CONC SIDEWALK

LOT 22

LOT 20

LOT 18

LOT 16

LOT 14

19MW2

22IW1 22IW2

19MW17S 19MW17D

22IW3 22IW4

19MW16

19MW30

EXIST. CONC SIDEWALK

19MW17D					
VOCs (ug/L)					
COMPOUND	12/04/2020	01/18/2023	04/20/2023	08/01/2023	NYSDEC TOGS
Acetone	115	529	28.20	1,520	50
Benzene	6.35	1,570	11,900	7,880	1

19MW16			
VOCs (ug/L)			
COMPOUND	12/04/2020	08/01/2023	NYSDEC TOGS
1,2,4-Trimethylbenzene	ND	15.90	5
Acetone	145	4,680	50
Methylene chloride	ND	11.10	5
Xylenes, Total	ND	14.90	5

21MW3		
VOCs (ug/L)		
COMPOUND	08/01/2023	NYSDEC TOGS
Acetone	339	50
Benzene	11	1
Chloroethane	35.80	5
Methylene chloride	20.20	5

19MW30			
VOCs (ug/L)			
COMPOUND	12/10/2020	08/01/2023	NYSDEC TOGS
Benzene	2.13	ND	1

19MW17S					
VOCs (ug/L)					
COMPOUND	12/04/2020	01/18/2023	04/20/2023	08/01/2023	NYSDEC TOGS
1,2-Dichloroethane	ND	ND	0.82	ND	0.6
Acetone	47.80	12	698	19.40	50
Benzene	0.24	ND	26	18.20	1
Chlorobenzene	0.81	2.87	4.74	6.10	5
Isopropyl benzene	46.30	ND	1.60	ND	5
n-Butylbenzene	7.28	ND	ND	ND	5
n-Propyl benzene	29.70	ND	ND	ND	5
sec-Butylbenzene	42.50	ND	ND	ND	5
tert-Butylbenzene	5.16	2.28	5.58	4.55	5

0' 60' 120'

SCALE IN FEET (FT.)

LEGEND:

LOCATION OF INSTALLED MONITORING WELL

LOCATION OF INSTALLED INJECTION WELL

BCP SITE BOUNDARY

Tables

Table 1
Depth to Water
334 Wallabout Street, Brooklyn, NY

August 1, 2023	
Well No.	**Depth to Water (ft)**
19MW2	7.36 ft
19MW3	6.75 ft
19MW5	6.07 ft
19MW7	4.74 ft
19MW16	7.51 ft
19MW17S	7.4 ft
19MW17D	6.03 ft
19MW30	N/A
21MW3	4.15 ft

Table 2A

Groundwater Volatile Organic Compound Analytical Results Over Time 19MW2

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW2		19MW2		19MW2		19MW2		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/3/2020		1/18/2023		4/20/2023		8/1/2023		
Matrix	Water		Water		Water		Ground Water		
Unit	ug/L		ug/L		ug/L		ug/L		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	0.216	U	0.216	U	1.080	U	5
1,1,1-Trichloroethane	0.200	U	0.266	U	0.266	U	1.330	U	5
1,1,2,2-Tetrachloroethane	0.200	U	0.256	U	0.256	U	1.280	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	0.286	U	0.286	U	1.430	U	5
1,1,2-Trichloroethane	0.200	U	0.249	U	0.249	U	1.240	U	1
1,1-Dichloroethane	0.200	U	0.272	U	0.272	U	1.360	U	5
1,1-Dichloroethylene	0.200	U	0.327	U	0.327	U	1.640	U	5
1,2,3-Trichlorobenzene	0.200	U	0.222	U	0.222	U	1.110	U	5
1,2,3-Trichloropropane	0.200	U	0.273	U	0.273	U	1.360	U	0.04
1,2,4-Trichlorobenzene	0.200	U	0.138	U	0.138	U	0.690	U	5
1,2,4-Trimethylbenzene	**3.330**		0.310	U	0.310	U	1.550	U	5
1,2-Dibromo-3-chloropropane	0.200	U	0.432	U	0.432	U	2.160	U	0.04
1,2-Dibromoethane	0.200	U	0.215	U	0.215	U	1.080	U	0.0006
1,2-Dichlorobenzene	0.200	U	0.270	U	0.270	U	1.350	U	3
1,2-Dichloroethane	0.200	U	0.377	U	0.377	U	1.880	U	0.6
1,2-Dichloropropane	0.200	U	0.327	U	0.327	U	1.640	U	1
1,3,5-Trimethylbenzene	**1.050**		0.347	U	0.347	U	1.740	U	5
1,3-Dichlorobenzene	0.200	U	0.283	U	0.283	U	1.420	U	3
1,3-Dichloropropane	0.200	U	0.260	U	0.260	U	1.300	U	5
1,4-Dichlorobenzene	0.200	U	0.311	U	0.311	U	1.560	U	3
1,4-Dioxane	40	U	35.300	U	35.300	U	176	U	~
2-Butanone	0.200	U	0.421	U	0.421	U	2.100	U	50
2-Hexanone	0.200	U	0.320	U	0.320	U	1.600	U	50
4-Methyl-2-pentanone	0.200	U	0.365	U	0.365	U	1.820	U	~
Acetone	**974**	**D**	**60.200**		**45.700**		**54.400**	**D**	50
Acrolein	0.200	U	0.447	U	0.447	U	2.240	U	~
Acrylonitrile	0.200	U	0.422	U	0.422	U	2.110	U	~
Benzene	**3.940**		0.279	U	0.279	U	1.400	U	1
Bromochloromethane	0.200	U	0.354	U	0.354	U	1.770	U	5
Bromodichloromethane	0.200	U	0.245	U	0.245	U	1.220	U	50
Bromoform	0.200	U	0.163	U	0.163	U	0.815	U	50
Bromomethane	0.200	U	0.119	U	0.119	U	0.595	U	5
Carbon disulfide	**0.580**		0.362	U	0.362	U	1.810	U	~
Carbon tetrachloride	0.200	U	0.204	U	0.204	U	1.020	U	5
Chlorobenzene	**0.740**		0.284	U	0.284	U	1.420	U	5
Chloroethane	0.200	U	0.448	U	0.448	U	2.240	U	5
Chloroform	0.200	U	0.243	U	0.243	U	1.220	U	7
Chloromethane	0.200	U	0.372	U	**0.530**		1.860	U	5
cis-1,2-Dichloroethylene	0.200	U	0.294	U	0.294	U	1.470	U	5
cis-1,3-Dichloropropylene	0.200	U	0.262	U	0.262	U	1.310	U	0.4
Cyclohexane	**2.570**		0.491	U	0.491	U	2.460	U	~
Dibromochloromethane	0.200	U	0.146	U	0.146	U	0.730	U	50
Dibromomethane	0.200	U	0.203	U	0.203	U	1.020	U	~
Dichlorodifluoromethane	0.200	U	0.451	U	0.451	U	2.260	U	5
Ethyl Benzene	**0.710**		0.290	U	0.290	U	1.450	U	5
Hexachlorobutadiene	0.200	U	0.241	U	0.241	U	1.200	U	0.5
Isopropylbenzene	**67.800**		0.405	U	0.405	U	2.020	U	5
Methyl acetate	0.200	U	0.442	U	0.442	U	2.210	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	0.244	U	0.244	U	1.220	U	10
Methylcyclohexane	8.100		0.477	U	0.477	U	2.380	U	~
Methylene chloride	1	U	0.397	U	0.397	U	1.980	U	5
Naphthalene	**56.300**		0.212	U	0.212	U	1.060	U	10
n-Butylbenzene	**5.940**		0.399	U	0.399	U	2	U	5
n-Propylbenzene	**66**		0.384	U	0.384	U	1.920	U	5
o-Xylene	1.120		**0.500**		0.261	U	1.300	U	5
p- & m- Xylenes	2.270		0.578	U	0.578	U	2.890	U	~
p-Diethylbenzene	9.640		0.341	U	0.341	U	1.700	U	~
p-Ethyltoluene	0.730		0.200	U	0.200	U	1	U	~
p-Isopropyltoluene	0.740		0.377	U	0.377	U	1.880	U	5
sec-Butylbenzene	**39.600**		0.444	U	**0.520**		2.220	U	5
Styrene	0.200	U	0.255	U	0.255	U	1.280	U	5
tert-Butyl alcohol (TBA)	0.500	U	**5.870**		0.608	U	3.040	U	~
tert-Butylbenzene	**9.080**		0.367	U	**0.390**	**J**	1.840	U	5
Tetrachloroethylene	0.200	U	0.239	U	0.239	U	1.200	U	5
Toluene	**0.320**	**J**	0.346	U	0.346	U	1.730	U	5
trans-1,2-Dichloroethylene	0.200	U	0.279	U	0.279	U	1.400	U	5
trans-1,3-Dichloropropylene	0.200	U	0.229	U	0.229	U	1.140	U	0.4
Trichloroethylene	0.200	U	0.249	U	0.249	U	1.240	U	5
Trichlorofluoromethane	0.200	U	0.337	U	0.337	U	1.680	U	5
Vinyl Chloride	0.200	U	0.469	U	0.469	U	2.340	U	2
Xylenes, Total	**3.390**		**0.940**	**J**	0.836	U	4.180	U	5

NOTES:

Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

~=this indicates that no regulatory limit has been established for this analyte

Table 2B

Groundwater Volatile Organic Compound Analytical Results Over Time 19MW3

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW3		19MW3		19MW3		19MW3		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/3/2020		1/18/2023		4/20/2023		8/1/2023		
Matrix	Water		Water		Water		Ground Water		
Unit	ug/L		ug/L		ug/L		ug/L		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	0.216	U	0.216	U	0.216	U	5
1,1,1-Trichloroethane	0.200	U	0.266	U	0.266	U	0.266	U	5
1,1,2,2-Tetrachloroethane	0.200	U	0.256	U	0.256	U	0.256	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	0.286	U	0.286	U	0.286	U	5
1,1,2-Trichloroethane	0.200	U	0.249	U	0.249	U	0.249	U	1
1,1-Dichloroethane	0.200	U	0.272	U	0.272	U	0.272	U	5
1,1-Dichloroethylene	0.200	U	0.327	U	0.327	U	0.327	U	5
1,2,3-Trichlorobenzene	0.200	U	0.222	U	0.222	U	0.222	U	5
1,2,3-Trichloropropane	0.200	U	0.273	U	0.273	U	0.273	U	0.04
1,2,4-Trichlorobenzene	0.200	U	0.138	U	0.138	U	0.138	U	5
1,2,4-Trimethylbenzene	0.200	U	**0.340**	**J**	0.310	U	0.310	U	5
1,2-Dibromo-3-chloropropane	0.200	U	0.432	U	0.432	U	0.432	U	0.04
1,2-Dibromoethane	0.200	U	0.215	U	0.215	U	0.215	U	0.0006
1,2-Dichlorobenzene	0.200	U	0.270	U	0.270	U	0.270	U	3
1,2-Dichloroethane	0.200	U	0.377	U	0.377	U	0.377	U	0.6
1,2-Dichloropropane	0.200	U	0.327	U	0.327	U	0.327	U	1
1,3,5-Trimethylbenzene	0.200	U	0.347	U	0.347	U	0.347	U	5
1,3-Dichlorobenzene	0.200	U	0.283	U	0.283	U	0.283	U	3
1,3-Dichloropropane	0.200	U	0.260	U	0.260	U	0.260	U	5
1,4-Dichlorobenzene	0.200	U	0.311	U	0.311	U	0.311	U	3
1,4-Dioxane	40	U	35.300	U	35.300	U	35.300	U	~
2-Butanone	0.200	U	**2.400**		0.421	U	0.421	U	50
2-Hexanone	0.200	U	0.320	U	0.320	U	0.320	U	50
4-Methyl-2-pentanone	0.200	U	**1.220**		0.365	U	0.365	U	~
Acetone	**53.100**		**60.300**		**18.400**		**44**		50
Acrolein	0.200	U	0.447	U	0.447	U	0.447	U	~
Acrylonitrile	0.200	U	0.422	U	0.422	U	0.422	U	~
Benzene	**4.670**		**5.460**		**3.380**		**2.750**		1
Bromochloromethane	0.200	U	0.354	U	0.354	U	0.354	U	5
Bromodichloromethane	0.200	U	0.245	U	0.245	U	0.245	U	50
Bromoform	0.200	U	0.163	U	0.163	U	0.163	U	50
Bromomethane	0.200	U	0.119	U	0.119	U	0.119	U	5
Carbon disulfide	0.200	U	**2.050**		0.362	U	0.362	U	~
Carbon tetrachloride	0.200	U	0.204	U	0.204	U	0.204	U	5
Chlorobenzene	0.200	U	0.284	U	0.284	U	0.284	U	5
Chloroethane	0.200	U	0.448	U	0.448	U	0.448	U	5
Chloroform	0.200	U	**12.100**		0.243	U	0.243	U	7
Chloromethane	0.200	U	0.372	U	**0.960**		0.372	U	5
cis-1,2-Dichloroethylene	0.200	U	0.294	U	0.294	U	0.294	U	5
cis-1,3-Dichloropropylene	0.200	U	0.262	U	0.262	U	0.262	U	0.4
Cyclohexane	0.200	U	0.491	U	0.491	U	0.491	U	~
Dibromochloromethane	0.200	U	0.146	U	0.146	U	0.146	U	50
Dibromomethane	0.200	U	0.203	U	0.203	U	0.203	U	~
Dichlorodifluoromethane	0.200	U	0.451	U	0.451	U	0.451	U	5
Ethyl Benzene	0.200	U	0.290	U	0.290	U	0.290	U	5
Hexachlorobutadiene	0.200	U	0.241	U	0.241	U	0.241	U	0.5
Isopropylbenzene	0.200	U	0.405	U	0.405	U	0.405	U	5
Methyl acetate	0.200	U	0.442	U	0.442	U	0.442	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	0.244	U	0.244	U	0.244	U	10
Methylcyclohexane	0.200	U	0.477	U	0.477	U	0.477	U	~
Methylene chloride	1	U	0.397	U	0.397	U	0.397	U	5
Naphthalene	1	U	**1.080**	**J**	0.212	U	0.212	U	10
n-Butylbenzene	0.200	U	0.399	U	0.399	U	0.399	U	5
n-Propylbenzene	0.200	U	0.384	U	0.384	U	0.384	U	5
o-Xylene	0.200	U	**0.270**	**J**	0.261	U	0.261	U	5
p- & m- Xylenes	0.500	U	**0.670**	**J**	0.578	U	0.578	U	~
p-Diethylbenzene	0.200	U	0.341	U	0.341	U	0.341	U	~
p-Ethyltoluene	0.200	U	0.200	U	0.200	U	0.200	U	~
p-Isopropyltoluene	0.200	U	0.377	U	0.377	U	0.377	U	5
sec-Butylbenzene	0.200	U	0.444	U	0.444	U	0.444	U	5
Styrene	0.200	U	0.255	U	0.255	U	0.255	U	5
tert-Butyl alcohol (TBA)	0.500	U	0.608	U	0.608	U	0.608	U	~
tert-Butylbenzene	0.200	U	0.367	U	0.367	U	0.367	U	5
Tetrachloroethylene	0.200	U	0.239	U	0.239	U	0.239	U	5
Toluene	0.200	U	0.346	U	0.346	U	0.346	U	5
trans-1,2-Dichloroethylene	0.200	U	0.279	U	0.279	U	0.279	U	5
trans-1,3-Dichloropropylene	0.200	U	0.229	U	0.229	U	0.229	U	0.4
Trichloroethylene	0.200	U	0.249	U	0.249	U	0.249	U	5
Trichlorofluoromethane	0.200	U	0.337	U	0.337	U	0.337	U	5
Vinyl Chloride	0.200	U	0.469	U	0.469	U	0.469	U	2
Xylenes, Total	0.600	U	**0.940**	**J**	0.836	U	0.836	U	5

NOTES:

Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

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Table 2C

Groundwater Volatile Organic Compound Analytical Results Over Time 19MW-5

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW5		19MW5		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/15/2020		8/1/2023		
Matrix	Water		Ground Water		
Unit	ug/L		ug/L		
Compound	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	1.080	U	5
1,1,1-Trichloroethane	0.200	U	1.330	U	5
1,1,2,2-Tetrachloroethane	0.200	U	1.280	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	1.430	U	5
1,1,2-Trichloroethane	0.200	U	1.240	U	1
1,1-Dichloroethane	0.200	U	1.360	U	5
1,1-Dichloroethylene	0.200	U	1.640	U	5
1,2,3-Trichlorobenzene	0.200	U	1.110	U	5
1,2,3-Trichloropropane	0.200	U	1.360	U	0.04
1,2,4-Trichlorobenzene	0.200	U	0.690	U	5
1,2,4-Trimethylbenzene	**0.590**		1.550	U	5
1,2-Dibromo-3-chloropropane	0.200	U	2.160	U	0.04
1,2-Dibromoethane	0.200	U	1.080	U	0.0006
1,2-Dichlorobenzene	0.200	U	1.350	U	3
1,2-Dichloroethane	0.210	J	1.880	U	0.6
1,2-Dichloropropane	0.200	U	1.640	U	1
1,3,5-Trimethylbenzene	0.330	J	1.740	U	5
1,3-Dichlorobenzene	0.200	U	1.420	U	3
1,3-Dichloropropane	0.200	U	1.300	U	5
1,4-Dichlorobenzene	0.200	U	1.560	U	3
1,4-Dioxane	40	U	176	U	~
2-Butanone	**0.750**	**B**	2.100	U	50
2-Hexanone	0.200	U	1.600	U	50
4-Methyl-2-pentanone	**0.270**	**J**	1.820	U	~
Acetone	**153**		**182**	**D**	50
Acrolein	0.200	U	2.240	U	~
Acrylonitrile	0.200	U	2.110	U	~
Benzene	**1.470**		**16**	**D**	1
Bromochloromethane	0.200	U	1.770	U	5
Bromodichloromethane	0.200	U	1.220	U	50
Bromoform	0.200	U	0.815	U	50
Bromomethane	0.200	U	0.595	U	5
Carbon disulfide	**4.860**		1.810	U	~
Carbon tetrachloride	0.200	U	1.020	U	5
Chlorobenzene	0.200	U	**8.350**	**D**	5
Chloroethane	0.200	U	2.240	U	5
Chloroform	0.200	U	1.220	U	7
Chloromethane	0.200	U	1.860	U	5
cis-1,2-Dichloroethylene	0.200	U	1.470	U	5
cis-1,3-Dichloropropylene	0.200	U	1.310	U	0.4
Cyclohexane	0.200	U	2.460	U	~
Dibromochloromethane	0.200	U	0.730	U	50
Dibromomethane	0.200	U	1.020	U	~
Dichlorodifluoromethane	0.200	U	2.260	U	5
Ethyl Benzene	0.200	U	**24**	**D**	5
Hexachlorobutadiene	0.200	U	1.200	U	0.5
Isopropylbenzene	0.200	U	2.020	U	5
Methyl acetate	0.200	U	2.210	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	1.220	U	10
Methylcyclohexane	0.200	U	2.380	U	~
Methylene chloride	1	U	1.980	U	5
Naphthalene	1	U	**2.600**	**JBD**	10
n-Butylbenzene	0.200	U	2	U	5
n-Propylbenzene	0.200	U	1.920	U	5
o-Xylene	0.200	U	**36.400**	**D**	5
p- & m- Xylenes	0.500	U	**92.800**	**D**	~
p-Diethylbenzene	0.200	U	1.700	U	~
p-Ethyltoluene	0.200	U	1	U	~
p-Isopropyltoluene	0.200	U	1.880	U	5
sec-Butylbenzene	0.200	U	2.220	U	5
Styrene	0.200	U	1.280	U	5
tert-Butyl alcohol (TBA)	0.500	U	3.040	U	~
tert-Butylbenzene	0.200	U	1.840	U	5
Tetrachloroethylene	0.200	U	1.200	U	5
Toluene	**0.280**	**J**	1.730	U	5
trans-1,2-Dichloroethylene	0.200	U	1.400	U	5
trans-1,3-Dichloropropylene	0.200	U	1.140	U	0.4
Trichloroethylene	0.200	U	1.240	U	5
Trichlorofluoromethane	0.200	U	1.680	U	5
Vinyl Chloride	0.200	U	2.340	U	2
Xylenes, Total	0.600	U	**129**	**D**	5

NOTES:

Shaded Values Exceed the GQS

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Table 2D

Groundwater Volatile Organic Compound Analytical Results Over Time 19MW-7

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW7		19MW7		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/11/2020		8/1/2023		
Matrix	Water		Ground Water		
Unit	ug/L		ug/L		
Compound	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.400	U	0.216	U	5
1,1,1-Trichloroethane	0.400	U	0.266	U	5
1,1,2,2-Tetrachloroethane	0.400	U	0.256	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.400	U	0.286	U	5
1,1,2-Trichloroethane	0.400	U	0.249	U	1
1,1-Dichloroethane	0.400	U	0.272	U	5
1,1-Dichloroethylene	0.400	U	0.327	U	5
1,2,3-Trichlorobenzene	0.400	U	0.222	U	5
1,2,3-Trichloropropane	0.400	U	0.273	U	0.04
1,2,4-Trichlorobenzene	0.400	U	0.138	U	5
1,2,4-Trimethylbenzene	0.400	U	0.310	U	5
1,2-Dibromo-3-chloropropane	0.400	U	0.432	U	0.04
1,2-Dibromoethane	0.400	U	0.215	U	0.0006
1,2-Dichlorobenzene	0.400	U	0.270	U	3
1,2-Dichloroethane	0.400	U	0.377	U	0.6
1,2-Dichloropropane	0.400	U	0.327	U	1
1,3,5-Trimethylbenzene	0.400	U	0.347	U	5
1,3-Dichlorobenzene	0.400	U	0.283	U	3
1,3-Dichloropropane	0.400	U	0.260	U	5
1,4-Dichlorobenzene	0.400	U	0.311	U	3
1,4-Dioxane	80	U	35.300	U	~
2-Butanone	**0.660**	**JD**	**2.660**		50
2-Hexanone	0.400	U	0.320	U	50
4-Methyl-2-pentanone	0.400	U	**1.110**		~
Acetone	**2.800**	**JD**	**62**		50
Acrolein	0.400	U	0.447	U	~
Acrylonitrile	0.400	U	0.422	U	~
Benzene	**3.060**	**D**	**8.430**		1
Bromochloromethane	0.400	U	0.354	U	5
Bromodichloromethane	0.400	U	0.245	U	50
Bromoform	0.400	U	0.163	U	50
Bromomethane	0.400	U	0.119	U	5
Carbon disulfide	0.400	U	0.362	U	~
Carbon tetrachloride	0.400	U	0.204	U	5
Chlorobenzene	**1,750**	**D**	**0.530**		5
Chloroethane	0.400	U	0.448	U	5
Chloroform	0.400	U	**0.490**	**J**	7
Chloromethane	0.400	U	0.372	U	5
cis-1,2-Dichloroethylene	0.400	U	0.294	U	5
cis-1,3-Dichloropropylene	0.400	U	0.262	U	0.4
Cyclohexane	0.400	U	0.491	U	~
Dibromochloromethane	0.400	U	0.146	U	50
Dibromomethane	0.400	U	0.203	U	~
Dichlorodifluoromethane	0.400	U	0.451	U	5
Ethyl Benzene	**0.680**	**JD**	**1.560**		5
Hexachlorobutadiene	0.400	U	0.241	U	0.5
Isopropylbenzene	0.400	U	0.405	U	5
Methyl acetate	0.400	U	0.442	U	~
Methyl tert-butyl ether (MTBE)	0.400	U	0.244	U	10
Methylcyclohexane	**0.540**	**JD**	0.477	U	~
Methylene chloride	2	U	0.397	U	5
Naphthalene	2	U	0.212	U	10
n-Butylbenzene	0.400	U	0.399	U	5
n-Propylbenzene	0.400	U	0.384	U	5
o-Xylene	0.400	U	**2.900**		5
p- & m- Xylenes	1	U	**5.410**		~
p-Diethylbenzene	0.400	U	0.341	U	~
p-Ethyltoluene	0.400	U	0.200	U	~
p-Isopropyltoluene	0.400	U	**0.410**	**J**	5
sec-Butylbenzene	0.400	U	0.444	U	5
Styrene	0.400	U	**0.480**	**J**	5
tert-Butyl alcohol (TBA)	1	U	0.608	U	~
tert-Butylbenzene	0.400	U	0.367	U	5
Tetrachloroethylene	0.400	U	0.239	U	5
Toluene	**0.480**	**JD**	**1.300**		5
trans-1,2-Dichloroethylene	0.400	U	0.279	U	5
trans-1,3-Dichloropropylene	0.400	U	0.229	U	0.4
Trichloroethylene	0.400	U	0.249	U	5
Trichlorofluoromethane	0.400	U	0.337	U	5
Vinyl Chloride	0.400	U	0.469	U	2
Xylenes, Total	1.200	U	**8.310**		5

NOTES:

Shaded Values Exceed the GQS

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Table 2E

Groundwater Volatile Organic Compound Analytical Results Over Time 19MW16

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW16		19MW16		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/4/2020		8/1/2023		
Matrix	Water		Ground Water		
Unit	ug/L		ug/L		
Compound	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	2.160	U	5
1,1,1-Trichloroethane	0.200	U	2.660	U	5
1,1,2,2-Tetrachloroethane	0.200	U	2.560	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	2.860	U	5
1,1,2-Trichloroethane	0.200	U	2.490	U	1
1,1-Dichloroethane	**0.360**	**J**	2.720	U	5
1,1-Dichloroethylene	0.200	U	3.270	U	5
1,2,3-Trichlorobenzene	0.200	U	2.220	U	5
1,2,3-Trichloropropane	0.200	U	2.730	U	0.04
1,2,4-Trichlorobenzene	0.200	U	1.380	U	5
1,2,4-Trimethylbenzene	0.200	U	**15.900**	**D**	5
1,2-Dibromo-3-chloropropane	0.200	U	4.320	U	0.04
1,2-Dibromoethane	0.200	U	2.150	U	0.0006
1,2-Dichlorobenzene	0.200	U	2.700	U	3
1,2-Dichloroethane	0.200	U	3.770	U	0.6
1,2-Dichloropropane	0.200	U	3.270	U	1
1,3,5-Trimethylbenzene	0.200	U	**4.600**	**JD**	5
1,3-Dichlorobenzene	0.200	U	2.830	U	3
1,3-Dichloropropane	0.200	U	2.600	U	5
1,4-Dichlorobenzene	0.200	U	3.110	U	3
1,4-Dioxane	40	U	353	U	~
2-Butanone	0.200	U	**5**	**D**	50
2-Hexanone	0.200	U	3.200	U	50
4-Methyl-2-pentanone	0.200	U	3.650	U	~
Acetone	**145**		**4,680**	**D**	50
Acrolein	0.200	U	4.470	U	~
Acrylonitrile	0.200	U	4.220	U	~
Benzene	0.200	U	2.790	U	1
Bromochloromethane	0.200	U	3.540	U	5
Bromodichloromethane	0.200	U	2.450	U	50
Bromoform	0.200	U	1.630	U	50
Bromomethane	0.200	U	1.190	U	5
Carbon disulfide	0.200	U	3.620	U	~
Carbon tetrachloride	0.200	U	2.040	U	5
Chlorobenzene	0.200	U	2.840	U	5
Chloroethane	0.200	U	4.480	U	5
Chloroform	0.200	U	2.430	U	7
Chloromethane	0.200	U	3.720	U	5
cis-1,2-Dichloroethylene	0.200	U	2.940	U	5
cis-1,3-Dichloropropylene	0.200	U	2.620	U	0.4
Cyclohexane	0.200	U	4.910	U	~
Dibromochloromethane	0.200	U	1.460	U	50
Dibromomethane	0.200	U	2.030	U	~
Dichlorodifluoromethane	0.200	U	4.510	U	5
Ethyl Benzene	0.200	U	2.900	U	5
Hexachlorobutadiene	0.200	U	2.410	U	0.5
Isopropylbenzene	0.200	U	4.050	U	5
Methyl acetate	0.200	U	4.420	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	2.440	U	10
Methylcyclohexane	0.200	U	4.770	U	~
Methylene chloride	1	U	**11.100**	**JD**	5
Naphthalene	1	U	2.120	U	10
n-Butylbenzene	0.200	U	3.990	U	5
n-Propylbenzene	0.200	U	3.840	U	5
o-Xylene	0.200	U	**3.200**	**JD**	5
p- & m- Xylenes	0.500	U	**11.700**	**D**	~
p-Diethylbenzene	0.200	U	3.410	U	~
p-Ethyltoluene	0.200	U	2.200	**JD**	~
p-Isopropyltoluene	0.200	U	3.770	U	5
sec-Butylbenzene	0.200	U	4.440	U	5
Styrene	0.200	U	2.550	U	5
tert-Butyl alcohol (TBA)	0.500	U	6.080	U	~
tert-Butylbenzene	0.200	U	3.670	U	5
Tetrachloroethylene	0.200	U	2.390	U	5
Toluene	0.200	U	3.460	U	5
trans-1,2-Dichloroethylene	0.200	U	2.790	U	5
trans-1,3-Dichloropropylene	0.200	U	2.290	U	0.4
Trichloroethylene	0.200	U	2.490	U	5
Trichlorofluoromethane	0.200	U	3.370	U	5
Vinyl Chloride	0.200	U	4.690	U	2
Xylenes, Total	0.600	U	**14.900**	**JD**	5

NOTES:

Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

~=this indicates that no regulatory limit has been established for this analyte

Table 2F
Groundwater Volatile Organic Compound Analytical Results Over Time 19MW17S
Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW17S		19MW17S		19MW17S		19MW17S		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/4/2020		1/18/2023		4/20/2023		8/1/2023		
Matrix	Water		Water		Water		Ground Water		
Unit	ug/L		ug/L		ug/L		ug/L		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	0.216	U	0.216	U	1.080	U	5
1,1,1-Trichloroethane	0.200	U	0.266	U	0.266	U	1.330	U	5
1,1,2,2-Tetrachloroethane	0.200	U	0.256	U	0.256	U	1.280	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	0.286	U	0.286	U	1.430	U	5
1,1,2-Trichloroethane	0.200	U	0.249	U	0.249	U	1.240	U	1
1,1-Dichloroethane	0.200	U	0.272	U	0.272	U	1.360	U	5
1,1-Dichloroethylene	0.200	U	0.327	U	0.327	U	1.640	U	5
1,2,3-Trichlorobenzene	0.200	U	0.222	U	0.222	U	1.110	U	5
1,2,3-Trichloropropane	0.200	U	0.273	U	0.273	U	1.360	U	0.04
1,2,4-Trichlorobenzene	0.200	U	0.138	U	0.138	U	0.690	U	5
1,2,4-Trimethylbenzene	0.200	U	0.310	U	0.310	U	1.550	U	5
1,2-Dibromo-3-chloropropane	0.200	U	0.432	U	0.432	U	2.160	U	0.04
1,2-Dibromoethane	0.200	U	0.215	U	0.215	U	1.080	U	0.0006
1,2-Dichlorobenzene	**0.230**	**J**	0.270	U	0.270	U	1.350	U	3
1,2-Dichloroethane	0.200	U	0.377	U	**0.820**		1.880	U	0.6
1,2-Dichloropropane	0.200	U	0.327	U	0.327	U	1.640	U	1
1,3,5-Trimethylbenzene	0.200	U	0.347	U	0.347	U	1.740	U	5
1,3-Dichlorobenzene	0.200	U	0.283	U	0.283	U	1.420	U	3
1,3-Dichloropropane	0.200	U	0.260	U	0.260	U	1.300	U	5
1,4-Dichlorobenzene	0.200	U	0.311	U	0.311	U	1.560	U	3
1,4-Dioxane	40	U	35.300	U	35.300	U	176	U	~
2-Butanone	0.200	U	0.421	U	0.421	U	2.100	U	50
2-Hexanone	0.200	U	0.320	U	0.320	U	1.600	U	50
4-Methyl-2-pentanone	0.200	U	**1.090**		0.365	U	1.820	U	~
Acetone	**47.800**		**12**		**698**	**D**	**19.400**	**D**	50
Acrolein	0.200	U	0.447	U	0.447	U	2.240	U	~
Acrylonitrile	0.200	U	0.422	U	0.422	U	2.110	U	~
Benzene	**0.240**	**J**	0.279	U	**26**		**18.200**	**D**	1
Bromochloromethane	0.200	U	0.354	U	0.354	U	1.770	U	5
Bromodichloromethane	0.200	U	0.245	U	0.245	U	1.220	U	50
Bromoform	0.200	U	0.163	U	0.163	U	0.815	U	50
Bromomethane	0.200	U	0.119	U	0.119	U	0.595	U	5
Carbon disulfide	**0.340**	**J**	**0.370**	**J**	**0.480**	**J**	1.810	U	~
Carbon tetrachloride	0.200	U	0.204	U	0.204	U	1.020	U	5
Chlorobenzene	**0.810**		**2.870**		**4.740**		**6.100**	**D**	5
Chloroethane	0.200	U	0.448	U	0.448	U	2.240	U	5
Chloroform	0.200	U	0.243	U	0.243	U	1.220	U	7
Chloromethane	0.200	U	0.372	U	**1.690**		1.860	U	5
cis-1,2-Dichloroethylene	0.200	U	0.294	U	0.294	U	1.470	U	5
cis-1,3-Dichloropropylene	0.200	U	0.262	U	0.262	U	1.310	U	0.4
Cyclohexane	0.200	U	0.491	U	0.491	U	2.460	U	~
Dibromochloromethane	0.200	U	0.146	U	0.146	U	0.730	U	50
Dibromomethane	0.200	U	0.203	U	0.203	U	1.020	U	~
Dichlorodifluoromethane	0.200	U	0.451	U	0.451	U	2.260	U	5
Ethyl Benzene	**0.230**	**J**	0.290	U	0.290	U	1.450	U	5
Hexachlorobutadiene	0.200	U	0.241	U	0.241	U	1.200	U	0.5
Isopropylbenzene	**46.300**		0.405	U	**1.600**		2.020	U	5
Methyl acetate	0.200	U	0.442	U	0.442	U	2.210	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	0.244	U	0.244	U	1.220	U	10
Methylcyclohexane	0.200	U	0.477	U	0.477	U	2.380	U	~
Methylene chloride	1	U	0.397	U	0.397	U	**6.300**	**JD**	5
Naphthalene	1	U	0.212	U	0.212	U	1.060	U	10
n-Butylbenzene	**7.280**		0.399	U	0.399	U	2	U	5
n-Propylbenzene	**29.700**		0.384	U	0.384	U	1.920	U	5
o-Xylene	0.200	U	0.261	U	0.261	U	1.300	U	5
p- & m- Xylenes	0.500	U	0.578	U	0.578	U	2.890	U	~
p-Diethylbenzene	**8.450**		0.341	U	**1.850**		1.700	U	~
p-Ethyltoluene	0.200	U	0.200	U	0.200	U	1	U	~
p-Isopropyltoluene	0.200	U	0.377	U	0.377	U	1.880	U	5
sec-Butylbenzene	**42.500**		0.444	U	**4.160**		2.220	U	5
Styrene	0.200	U	0.255	U	0.255	U	1.280	U	5
tert-Butyl alcohol (TBA)	0.500	U	0.608	U	0.608	U	3.040	U	~
tert-Butylbenzene	**5.160**		**2.280**		**5.880**		**4.550**	**D**	5
Tetrachloroethylene	0.200	U	0.239	U	0.239	U	1.200	U	5
Toluene	0.200	U	0.346	U	0.346	U	1.730	U	5
trans-1,2-Dichloroethylene	0.200	U	0.279	U	0.279	U	1.400	U	5
trans-1,3-Dichloropropylene	0.200	U	0.229	U	0.229	U	1.140	U	0.4
Trichloroethylene	0.200	U	0.249	U	0.249	U	1.240	U	5
Trichlorofluoromethane	0.200	U	0.337	U	0.337	U	1.680	U	5
Vinyl Chloride	0.200	U	0.469	U	0.469	U	2.340	U	2
Xylenes, Total	0.600	U	0.836	U	0.836	U	4.180	U	5

NOTES:
Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Table 2G
Groundwater Volatile Organic Compound Analytical Results Over Time 19MW17D
Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW17D		19MW17D		19MW17D		19MW17D		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/15/2020		1/18/2023		4/20/2023		8/1/2023		
Matrix	Water		Water		Water		Ground Water		
Unit	ug/L		ug/L		ug/L		ug/L		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	2.160	U	0.216	U	0.216	U	5
1,1,1-Trichloroethane	0.200	U	2.660	U	0.266	U	0.266	U	5
1,1,2,2-Tetrachloroethane	0.200	U	2.560	U	0.256	U	0.256	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	2.860	U	0.286	U	0.286	U	5
1,1,2-Trichloroethane	0.200	U	2.490	U	0.249	U	0.249	U	1
1,1-Dichloroethane	0.200	U	2.720	U	0.272	U	0.272	U	5
1,1-Dichloroethylene	0.200	U	3.270	U	0.327	U	0.327	U	5
1,2,3-Trichlorobenzene	0.200	U	2.220	U	0.222	U	0.222	U	5
1,2,3-Trichloropropane	0.200	U	2.730	U	0.273	U	0.273	U	0.04
1,2,4-Trichlorobenzene	0.200	U	1.380	U	0.138	U	0.138	U	5
1,2,4-Trimethylbenzene	0.200	U	3.100	U	0.310	U	0.310	U	5
1,2-Dibromo-3-chloropropane	0.200	U	4.320	U	0.432	U	0.432	U	0.04
1,2-Dibromoethane	0.200	U	2.150	U	0.215	U	0.215	U	0.0006
1,2-Dichlorobenzene	0.200	U	2.700	U	0.270	U	0.270	U	3
1,2-Dichloroethane	0.200	U	3.770	U	0.377	U	0.377	U	0.6
1,2-Dichloropropane	0.200	U	3.270	U	0.327	U	0.327	U	1
1,3,5-Trimethylbenzene	0.200	U	3.470	U	0.347	U	0.347	U	5
1,3-Dichlorobenzene	0.200	U	2.830	U	0.283	U	0.283	U	3
1,3-Dichloropropane	0.200	U	2.600	U	0.260	U	0.260	U	5
1,4-Dichlorobenzene	0.200	U	3.110	U	0.311	U	0.311	U	3
1,4-Dioxane	40	U	353	U	35.300	U	35.300	U	~
2-Butanone	**0.600**	**JB**	4.210	U	0.421	U	0.421	U	50
2-Hexanone	0.200	U	3.200	U	0.320	U	0.320	U	50
4-Methyl-2-pentanone	0.200	U	3.650	U	0.365	U	0.365	U	~
Acetone	**115**		**529**	**D**	**28.200**	**D**	**1,520**	**D**	50
Acrolein	0.200	U	4.470	U	0.447	U	0.447	U	~
Acrylonitrile	0.200	U	4.220	U	0.422	U	0.422	U	~
Benzene	**6.350**		**1,570**	**D**	**11,900**	**D**	**7,880**	**D**	1
Bromochloromethane	0.200	U	3.540	U	0.354	U	0.354	U	5
Bromodichloromethane	0.200	U	2.450	U	0.245	U	0.245	U	50
Bromoform	0.200	U	1.630	U	0.163	U	0.163	U	50
Bromomethane	0.200	U	1.190	U	0.119	U	0.119	U	5
Carbon disulfide	**0.500**		3.620	U	**6.100**		**0.650**		~
Carbon tetrachloride	0.200	U	2.040	U	0.204	U	0.204	U	5
Chlorobenzene	0.200	U	2.840	U	0.284	U	0.284	U	5
Chloroethane	0.200	U	4.480	U	0.448	U	0.448	U	5
Chloroform	0.200	U	2.430	U	0.243	U	0.243	U	7
Chloromethane	0.200	U	3.720	U	0.372	U	0.372	U	5
cis-1,2-Dichloroethylene	0.200	U	2.940	U	0.294	U	0.294	U	5
cis-1,3-Dichloropropylene	0.200	U	2.620	U	0.262	U	0.262	U	0.4
Cyclohexane	**0.200**	**J**	4.910	U	0.491	U	0.491	U	~
Dibromochloromethane	0.200	U	1.460	U	0.146	U	0.146	U	50
Dibromomethane	0.200	U	2.030	U	0.203	U	0.203	U	~
Dichlorodifluoromethane	0.200	U	4.510	U	0.451	U	0.451	U	5
Ethyl Benzene	0.200	U	2.900	U	0.290	U	0.290	U	5
Hexachlorobutadiene	0.200	U	2.410	U	0.241	U	0.241	U	0.5
Isopropylbenzene	0.200	U	4.050	U	0.405	U	0.405	U	5
Methyl acetate	0.200	U	4.420	U	0.442	U	0.442	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	2.440	U	0.244	U	0.244	U	10
Methylcyclohexane	0.200	U	4.770	U	0.477	U	0.477	U	~
Methylene chloride	1	U	3.970	U	0.397	U	0.397	U	5
Naphthalene	1	U	2.120	U	0.212	U	0.212	U	10
n-Butylbenzene	0.200	U	3.990	U	0.399	U	0.399	U	5
n-Propylbenzene	0.200	U	3.840	U	0.384	U	0.384	U	5
o-Xylene	0.200	U	2.610	U	0.261	U	0.261	U	5
p- & m- Xylenes	0.500	U	5.780	U	0.578	U	0.578	U	~
p-Diethylbenzene	0.200	U	3.410	U	0.341	U	0.341	U	~
p-Ethyltoluene	0.200	U	2	U	0.200	U	0.200	U	~
p-Isopropyltoluene	0.200	U	3.770	U	0.377	U	0.377	U	5
sec-Butylbenzene	0.200	U	4.440	U	0.444	U	0.444	U	5
Styrene	0.200	U	2.550	U	0.255	U	0.255	U	5
tert-Butyl alcohol (TBA)	**1.280**		6.080	U	**14.200**		**11.800**		~
tert-Butylbenzene	**0.270**	**J**	3.670	U	0.367	U	0.367	U	5
Tetrachloroethylene	0.200	U	2.390	U	0.239	U	0.239	U	5
Toluene	0.200	U	3.460	U	0.346	U	0.346	U	5
trans-1,2-Dichloroethylene	0.200	U	2.790	U	0.279	U	0.279	U	5
trans-1,3-Dichloropropylene	0.200	U	2.290	U	0.229	U	0.229	U	0.4
Trichloroethylene	0.200	U	2.490	U	0.249	U	0.249	U	5
Trichlorofluoromethane	0.200	U	3.370	U	0.337	U	0.337	U	5
Vinyl Chloride	0.200	U	4.690	U	0.469	U	0.469	U	2
Xylenes, Total	0.600	U	8.360	U	0.836	U	0.836	U	5

NOTES:
Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Table 2H
Groundwater Volatile Organic Compound Analytical Results Over Time 19MW30
Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	19MW30		19MW30		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	12/10/2020		8/1/2023		
Matrix	Water		Ground Water		
Unit	ug/L		ug/L		
Compound	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.200	U	0.216	U	5
1,1,1-Trichloroethane	0.200	U	0.266	U	5
1,1,2,2-Tetrachloroethane	0.200	U	0.256	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.200	U	0.286	U	5
1,1,2-Trichloroethane	0.200	U	0.249	U	1
1,1-Dichloroethane	0.200	U	0.272	U	5
1,1-Dichloroethylene	0.200	U	0.327	U	5
1,2,3-Trichlorobenzene	0.200	U	0.222	U	5
1,2,3-Trichloropropane	0.200	U	0.273	U	0.04
1,2,4-Trichlorobenzene	0.200	U	0.138	U	5
1,2,4-Trimethylbenzene	**1.170**		0.310	U	5
1,2-Dibromo-3-chloropropane	0.200	U	0.432	U	0.04
1,2-Dibromoethane	0.200	U	0.215	U	0.0006
1,2-Dichlorobenzene	0.200	U	0.270	U	3
1,2-Dichloroethane	0.200	U	0.377	U	0.6
1,2-Dichloropropane	0.200	U	0.327	U	1
1,3,5-Trimethylbenzene	**0.720**		0.347	U	5
1,3-Dichlorobenzene	0.200	U	0.283	U	3
1,3-Dichloropropane	0.200	U	0.260	U	5
1,4-Dichlorobenzene	0.200	U	0.311	U	3
1,4-Dioxane	40	U	35.300	U	~
2-Butanone	**0.860**		0.421	U	50
2-Hexanone	0.200	U	0.320	U	50
4-Methyl-2-pentanone	**0.700**		0.365	U	~
Acetone	**3.590**		**5.210**		50
Acrolein	0.200	U	0.447	U	~
Acrylonitrile	0.200	U	0.422	U	~
Benzene	**2.130**		0.279	U	1
Bromochloromethane	0.200	U	0.354	U	5
Bromodichloromethane	0.200	U	0.245	U	50
Bromoform	0.200	U	0.163	U	50
Bromomethane	0.200	U	0.119	U	5
Carbon disulfide	0.200	U	0.362	U	~
Carbon tetrachloride	0.200	U	0.204	U	5
Chlorobenzene	0.200	U	**1.640**		5
Chloroethane	0.200	U	0.448	U	5
Chloroform	0.200	U	0.243	U	7
Chloromethane	0.200	U	0.372	U	5
cis-1,2-Dichloroethylene	0.200	U	0.294	U	5
cis-1,3-Dichloropropylene	0.200	U	0.262	U	0.4
Cyclohexane	0.200	U	0.491	U	~
Dibromochloromethane	0.200	U	0.146	U	50
Dibromomethane	0.200	U	0.203	U	~
Dichlorodifluoromethane	0.200	U	0.451	U	5
Ethyl Benzene	**1.120**		0.290	U	5
Hexachlorobutadiene	0.200	U	0.241	U	0.5
Isopropylbenzene	**1.400**		0.405	U	5
Methyl acetate	0.200	U	0.442	U	~
Methyl tert-butyl ether (MTBE)	0.200	U	0.244	U	10
Methylcyclohexane	**1.530**		0.477	U	~
Methylene chloride	1	U	0.397	U	5
Naphthalene	**2.750**		0.212	U	10
n-Butylbenzene	**0.970**		0.399	U	5
n-Propylbenzene	**0.710**		0.384	U	5
o-Xylene	**0.570**		0.261	U	5
p- & m- Xylenes	**4.120**		0.578	U	~
p-Diethylbenzene	**3.420**		0.341	U	~
p-Ethyltoluene	**1.130**		0.200	U	~
p-Isopropyltoluene	**0.450**	**J**	0.377	U	5
sec-Butylbenzene	**0.720**		0.444	U	5
Styrene	0.200	U	0.255	U	5
tert-Butyl alcohol (TBA)	0.500	U	0.608	U	~
tert-Butylbenzene	0.200	U	0.367	U	5
Tetrachloroethylene	0.200	U	0.239	U	5
Toluene	**0.790**		0.346	U	5
trans-1,2-Dichloroethylene	0.200	U	0.279	U	5
trans-1,3-Dichloropropylene	0.200	U	0.229	U	0.4
Trichloroethylene	0.200	U	0.249	U	5
Trichlorofluoromethane	0.200	U	0.337	U	5
Vinyl Chloride	0.200	U	0.469	U	2
Xylenes, Total	**4.690**		0.836	U	5

NOTES:
Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Table 2I

Groundwater Volatile Organic Compound Analytical Results Over Time 21MW3

Former Pfizer Site C (BCP No. C224288) 334 Wallabout Street , Brooklyn, NY

Sample ID	21MW3		NYSDEC TOGS Standards and Guidance Values - GA
Sampling Date	8/1/2023		
Matrix	Ground Water		
Unit	ug/L		
Compound	Result	Q	
1,1,1,2-Tetrachloroethane	5.400	U	5
1,1,1-Trichloroethane	6.650	U	5
1,1,2,2-Tetrachloroethane	6.400	U	5
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	7.150	U	5
1,1,2-Trichloroethane	6.220	U	1
1,1-Dichloroethane	6.800	U	5
1,1-Dichloroethylene	8.180	U	5
1,2,3-Trichlorobenzene	5.550	U	5
1,2,3-Trichloropropane	6.820	U	0.04
1,2,4-Trichlorobenzene	3.450	U	5
1,2,4-Trimethylbenzene	7.750	U	5
1,2-Dibromo-3-chloropropane	10.800	U	0.04
1,2-Dibromoethane	5.380	U	0.0006
1,2-Dichlorobenzene	6.750	U	3
1,2-Dichloroethane	9.420	U	0.6
1,2-Dichloropropane	8.180	U	1
1,3,5-Trimethylbenzene	8.680	U	5
1,3-Dichlorobenzene	7.080	U	3
1,3-Dichloropropane	6.500	U	5
1,4-Dichlorobenzene	7.780	U	3
1,4-Dioxane	882	U	~
2-Butanone	10.500	U	50
2-Hexanone	8	U	50
4-Methyl-2-pentanone	9.120	U	~
Acetone	**339**	**D**	50
Acrolein	11.200	U	~
Acrylonitrile	10.600	U	~
Benzene	**11**	**JD**	1
Bromochloromethane	8.850	U	5
Bromodichloromethane	6.120	U	50
Bromoform	4.080	U	50
Bromomethane	2.980	U	5
Carbon disulfide	9.050	U	~
Carbon tetrachloride	5.100	U	5
Chlorobenzene	7.100	U	5
Chloroethane	**35.800**	**D**	5
Chloroform	6.080	U	7
Chloromethane	9.300	U	5
cis-1,2-Dichloroethylene	7.350	U	5
cis-1,3-Dichloropropylene	6.550	U	0.4
Cyclohexane	12.300	U	~
Dibromochloromethane	3.650	U	50
Dibromomethane	5.080	U	~
Dichlorodifluoromethane	11.300	U	5
Ethyl Benzene	7.250	U	5
Hexachlorobutadiene	6.020	U	0.5
Isopropylbenzene	10.100	U	5
Methyl acetate	11	U	~
Methyl tert-butyl ether (MTBE)	6.100	U	10
Methylcyclohexane	11.900	U	~
Methylene chloride	**20.200**	**JD**	5
Naphthalene	5.300	U	10
n-Butylbenzene	9.980	U	5
n-Propylbenzene	9.600	U	5
o-Xylene	6.520	U	5
p- & m- Xylenes	14.400	U	~
p-Diethylbenzene	8.520	U	~
p-Ethyltoluene	5	U	~
p-Isopropyltoluene	9.420	U	5
sec-Butylbenzene	11.100	U	5
Styrene	6.380	U	5
tert-Butyl alcohol (TBA)	15.200	U	~
tert-Butylbenzene	9.180	U	5
Tetrachloroethylene	5.980	U	5
Toluene	8.650	U	5
trans-1,2-Dichloroethylene	6.980	U	5
trans-1,3-Dichloropropylene	5.720	U	0.4
Trichloroethylene	6.220	U	5
Trichlorofluoromethane	8.420	U	5
Vinyl Chloride	11.700	U	2
Xylenes, Total	20.900	U	5

NOTES:

Shaded Values Exceed the GQS

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

~=this indicates that no regulatory limit has been established for this analyte

Appendices

Appendix A

Laboratory Data

Technical Report

prepared for:

Touchstone Environmental Geology, PC
1919 Middle Country Road Suite 205
Centereach NY, 11720
Attention: Rachel Ataman

Report Date: 08/10/2023
Client Project ID: 334 Wallabout Street, Brooklyn, NY
York Project (SDG) No.: 23H0110

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 08/10/2023
Client Project ID: 334 Wallabout Street, Brooklyn, NY
York Project (SDG) No.: 23H0110

Touchstone Environmental Geology, PC
1919 Middle Country Road Suite 205
Centereach NY, 11720
Attention: Rachel Ataman

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on August 02, 2023 and listed below. The project was identified as your project: **334 Wallabout Street, Brooklyn, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23H0110-01	19MW2	Ground Water	08/01/2023	08/02/2023
23H0110-02	19MW3	Ground Water	08/01/2023	08/02/2023
23H0110-03	19MW5	Ground Water	08/01/2023	08/02/2023
23H0110-04	19MW16	Ground Water	08/01/2023	08/02/2023
23H0110-05	19MW7	Ground Water	08/01/2023	08/02/2023
23H0110-06	19MW17D	Ground Water	08/01/2023	08/02/2023
23H0110-07	19MW17S	Ground Water	08/01/2023	08/02/2023
23H0110-08	19MW30	Ground Water	08/01/2023	08/02/2023
23H0110-09	21MW3	Ground Water	08/01/2023	08/02/2023
23H0110-10	Field Blank	Ground Water	08/01/2023	08/02/2023

General Notes for York Project (SDG) No.: 23H0110

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:  **Date:** 08/10/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: 19MW2 **York Sample ID:** 23H0110-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 8:35 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
71-55-6	1,1,1-Trichloroethane	ND		ug/L	1.33	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	1.43	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
79-00-5	1,1,2-Trichloroethane	ND		ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
75-34-3	1,1-Dichloroethane	ND	QL-02	ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	1.11	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.690	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	1.55	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.16	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
106-93-4	1,2-Dibromoethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
95-50-1	1,2-Dichlorobenzene	ND		ug/L	1.35	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
107-06-2	1,2-Dichloroethane	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
78-87-5	1,2-Dichloropropane	ND	CCVE	ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	1.74	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
541-73-1	1,3-Dichlorobenzene	ND		ug/L	1.42	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
142-28-9	1,3-Dichloropropane	ND	QL-02	ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
106-46-7	1,4-Dichlorobenzene	ND		ug/L	1.56	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
123-91-1	1,4-Dioxane	ND		ug/L	176	400	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
78-93-3	2-Butanone	ND		ug/L	2.10	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA

Sample Information

Client Sample ID: 19MW2 **York Sample ID:** 23H0110-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 8:35 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND	CCVE	ug/L	1.60	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND	CCVE, QL-02	ug/L	1.82	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-64-1	**Acetone**	**54.4**	ICVE	ug/L	6.70	10.0	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
107-02-8	Acrolein	ND		ug/L	2.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-13-1	Acrylonitrile	ND		ug/L	2.11	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-43-2	Benzene	ND		ug/L	1.40	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-97-5	Bromochloromethane	ND		ug/L	1.77	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-27-4	Bromodichloromethane	ND	CCVE	ug/L	1.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-25-2	Bromoform	ND		ug/L	0.815	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-83-9	Bromomethane	ND	CCVE	ug/L	0.595	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-15-0	Carbon disulfide	ND		ug/L	1.81	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
56-23-5	Carbon tetrachloride	ND		ug/L	1.02	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-90-7	Chlorobenzene	ND		ug/L	1.42	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-00-3	Chloroethane	ND		ug/L	2.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-66-3	Chloroform	ND		ug/L	1.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-87-3	Chloromethane	ND		ug/L	1.86	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	1.47	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-01-5	cis-1,3-Dichloropropylene	ND	CCVE	ug/L	1.31	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
110-82-7	Cyclohexane	ND		ug/L	2.46	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
124-48-1	Dibromochloromethane	ND		ug/L	0.730	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-95-3	Dibromomethane	ND		ug/L	1.02	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.26	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
100-41-4	Ethyl Benzene	ND		ug/L	1.45	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW2 **York Sample ID:** 23H0110-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 8:35 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/L	1.20	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
98-82-8	Isopropylbenzene	ND		ug/L	2.02	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
79-20-9	Methyl acetate	ND		ug/L	2.21	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	1.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
108-87-2	Methylcyclohexane	ND		ug/L	2.38	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
75-09-2	Methylene chloride	ND		ug/L	1.98	10.0	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
91-20-3	Naphthalene	ND		ug/L	1.06	10.0	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
104-51-8	n-Butylbenzene	ND		ug/L	2.00	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
103-65-1	n-Propylbenzene	ND		ug/L	1.92	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
95-47-6	o-Xylene	ND		ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/05/2023 03:04	SMA
179601-23-1	p- & m- Xylenes	ND		ug/L	2.89	5.00	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/05/2023 03:04	SMA
105-05-5	* p-Diethylbenzene	ND		ug/L	1.70	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	1.00	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:04	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	2.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
100-42-5	Styrene	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	3.04	5.00	5	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:04	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	1.84	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
127-18-4	Tetrachloroethylene	ND	ICVE, QL-02	ug/L	1.20	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
108-88-3	Toluene	ND	CCVE	ug/L	1.73	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	1.40	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	1.14	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
79-01-6	Trichloroethylene	ND	CCVE	ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA

Sample Information

Client Sample ID: 19MW2 **York Sample ID:** 23H0110-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 8:35 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-69-4	Trichlorofluoromethane	ND		ug/L	1.68	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
75-01-4	Vinyl Chloride	ND		ug/L	2.34	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:04	SMA
1330-20-7	Xylenes, Total	ND		ug/L	4.18	7.50	5	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/05/2023 03:04	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*106 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*93.2 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.0 %*	*79-122*

Sample Information

Client Sample ID: 19MW3 **York Sample ID:** 23H0110-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 7:55 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.216	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.266	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.256	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.286	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
75-34-3	1,1-Dichloroethane	ND	QL-02	ug/L	0.272	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.222	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:30	SMA
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.273	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:30	SMA
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.138	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:30	SMA

Sample Information

Client Sample ID: 19MW3 **York Sample ID:** 23H0110-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 7:55 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.310	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.432	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	0.215	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.270	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND	CCVE	ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.347	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.283	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND	QL-02	ug/L	0.260	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.311	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	35.3	80.0	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	0.421	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND	CCVE	ug/L	0.320	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND	CCVE, QL-02	ug/L	0.365	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-64-1	**Acetone**	**44.0**	ICVE	ug/L	1.34	2.00	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
107-02-8	Acrolein	ND		ug/L	0.447	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-13-1	Acrylonitrile	ND		ug/L	0.422	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-43-2	**Benzene**	**2.75**		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
74-97-5	Bromochloromethane	ND		ug/L	0.354	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-27-4	Bromodichloromethane	ND	CCVE	ug/L	0.245	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-25-2	Bromoform	ND		ug/L	0.163	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-83-9	Bromomethane	ND	CCVE	ug/L	0.119	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-15-0	Carbon disulfide	ND		ug/L	0.362	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW3 **York Sample ID:** 23H0110-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 7:55 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-23-5	Carbon tetrachloride	ND		ug/L	0.204	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-90-7	Chlorobenzene	ND		ug/L	0.284	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-00-3	Chloroethane	ND		ug/L	0.448	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-66-3	Chloroform	ND		ug/L	0.243	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-87-3	Chloromethane	ND		ug/L	0.372	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.294	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-01-5	cis-1,3-Dichloropropylene	ND	CCVE	ug/L	0.262	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
110-82-7	Cyclohexane	ND		ug/L	0.491	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
124-48-1	Dibromochloromethane	ND		ug/L	0.146	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-95-3	Dibromomethane	ND		ug/L	0.203	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.451	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
100-41-4	Ethyl Benzene	ND		ug/L	0.290	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-68-3	Hexachlorobutadiene	ND		ug/L	0.241	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
98-82-8	Isopropylbenzene	ND		ug/L	0.405	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-20-9	Methyl acetate	ND		ug/L	0.442	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.244	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-87-2	Methylcyclohexane	ND		ug/L	0.477	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-09-2	Methylene chloride	ND		ug/L	0.397	2.00	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
91-20-3	Naphthalene	ND		ug/L	0.212	2.00	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
104-51-8	n-Butylbenzene	ND		ug/L	0.399	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
103-65-1	n-Propylbenzene	ND		ug/L	0.384	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-47-6	o-Xylene	ND		ug/L	0.261	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
179601-23-1	p- & m- Xylenes	ND		ug/L	0.578	1.00	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP

Sample Information

Client Sample ID: 19MW3 **York Sample ID:** 23H0110-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 7:55 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
105-05-5	* p-Diethylbenzene	ND		ug/L	0.341	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:30	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	0.444	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
100-42-5	Styrene	ND		ug/L	0.255	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.608	1.00	1	EPA 8260C Certifications:	08/04/2023 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/05/2023 03:30	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	0.367	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
127-18-4	Tetrachloroethylene	ND	ICVE, QL-02	ug/L	0.239	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
108-88-3	Toluene	ND	CCVE	ug/L	0.346	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.229	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
79-01-6	Trichloroethylene	ND	CCVE	ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	0.337	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
75-01-4	Vinyl Chloride	ND		ug/L	0.469	0.500	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/05/2023 03:30	SMA
1330-20-7	Xylenes, Total	ND		ug/L	0.836	1.50	1	EPA 8260C Certifications:	08/04/2023 12:30 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/05/2023 03:30	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*95.3 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.0 %*	*79-122*

Sample Information

Client Sample ID: 19MW5 **York Sample ID:** 23H0110-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:00 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Information

Client Sample ID: 19MW5 **York Sample ID:** 23H0110-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:00 pm	08/02/2023

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-55-6	1,1,1-Trichloroethane	ND		ug/L	1.33	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	1.43	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-00-5	1,1,2-Trichloroethane	ND		ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-34-3	1,1-Dichloroethane	ND	QL-02	ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	1.11	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.690	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	1.55	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.16	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	1.35	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND	CCVE	ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	1.74	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	1.42	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND	QL-02	ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	1.56	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	176	400	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	2.10	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND	CCVE	ug/L	1.60	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND	CCVE, QL-02	ug/L	1.82	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW5 **York Sample ID:** 23H0110-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**182**	ICVE	ug/L	6.70	10.0	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
107-02-8	Acrolein	ND		ug/L	2.24	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
107-13-1	Acrylonitrile	ND		ug/L	2.11	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
71-43-2	**Benzene**	**16.0**		ug/L	1.40	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
74-97-5	Bromochloromethane	ND		ug/L	1.77	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND	CCVE	ug/L	1.22	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-25-2	Bromoform	ND		ug/L	0.815	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-83-9	Bromomethane	ND	CCVE	ug/L	0.595	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-15-0	Carbon disulfide	ND		ug/L	1.81	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
56-23-5	Carbon tetrachloride	ND		ug/L	1.02	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-90-7	**Chlorobenzene**	**8.35**		ug/L	1.42	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
75-00-3	Chloroethane	ND		ug/L	2.24	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
67-66-3	Chloroform	ND		ug/L	1.22	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-87-3	Chloromethane	ND		ug/L	1.86	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	1.47	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
10061-01-5	cis-1,3-Dichloropropylene	ND	CCVE	ug/L	1.31	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
110-82-7	Cyclohexane	ND		ug/L	2.46	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		ug/L	0.730	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-95-3	Dibromomethane	ND		ug/L	1.02	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.26	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	**Ethyl Benzene**	**24.0**		ug/L	1.45	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
87-68-3	Hexachlorobutadiene	ND		ug/L	1.20	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-82-8	Isopropylbenzene	ND		ug/L	2.02	2.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: 19MW5 **York Sample ID:** 23H0110-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		ug/L	2.21	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	1.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-87-2	Methylcyclohexane	ND		ug/L	2.38	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-09-2	Methylene chloride	ND		ug/L	1.98	10.0	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
91-20-3	**Naphthalene**	**2.60**	J, B	ug/L	1.06	10.0	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
104-51-8	n-Butylbenzene	ND		ug/L	2.00	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
103-65-1	n-Propylbenzene	ND		ug/L	1.92	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-47-6	**o-Xylene**	**36.4**		ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
179601-23-1	**p- & m- Xylenes**	**92.8**		ug/L	2.89	5.00	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
105-05-5	* p-Diethylbenzene	ND		ug/L	1.70	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	1.00	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
135-98-8	sec-Butylbenzene	ND		ug/L	2.22	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
100-42-5	Styrene	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	3.04	5.00	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
98-06-6	tert-Butylbenzene	ND		ug/L	1.84	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
127-18-4	Tetrachloroethylene	ND	ICVE, QL-02	ug/L	1.20	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-88-3	Toluene	ND	CCVE	ug/L	1.73	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	1.40	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	1.14	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-01-6	Trichloroethylene	ND	CCVE	ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-69-4	Trichlorofluoromethane	ND		ug/L	1.68	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-01-4	Vinyl Chloride	ND		ug/L	2.34	2.50	5	EPA 8260C Certifications:	08/04/2023 12:30	08/05/2023 03:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW5 **York Sample ID:** 23H0110-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:00 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1330-20-7	**Xylenes, Total**	**129**		ug/L	4.18	7.50	5	EPA 8260C	08/04/2023 12:30	08/05/2023 03:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*96.5 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*93.4 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*102 %*	*79-122*

Sample Information

Client Sample ID: 19MW16 **York Sample ID:** 23H0110-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 11:30 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	2.16	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	2.66	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	2.56	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	2.86	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	2.49	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-34-3	1,1-Dichloroethane	ND		ug/L	2.72	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-35-4	1,1-Dichloroethylene	ND		ug/L	3.27	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	2.22	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	2.73	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	1.38	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
95-63-6	**1,2,4-Trimethylbenzene**	**15.9**		ug/L	3.10	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	4.32	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: 19MW16 **York Sample ID:** 23H0110-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 11:30 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	2.15	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.70	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
107-06-2	1,2-Dichloroethane	ND		ug/L	3.77	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
78-87-5	1,2-Dichloropropane	ND		ug/L	3.27	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
108-67-8	**1,3,5-Trimethylbenzene**	**4.60**	J	ug/L	3.47	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	08/08/2023 14:32	SMA
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.83	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
142-28-9	1,3-Dichloropropane	ND		ug/L	2.60	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 14:32	SMA
106-46-7	1,4-Dichlorobenzene	ND		ug/L	3.11	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
123-91-1	1,4-Dioxane	ND		ug/L	353	800	10	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 14:32	SMA
78-93-3	**2-Butanone**	**5.00**		ug/L	4.21	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	08/08/2023 14:32	SMA
591-78-6	2-Hexanone	ND		ug/L	3.20	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
108-10-1	4-Methyl-2-pentanone	ND		ug/L	3.65	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
67-64-1	**Acetone**	**4680**	ICVE	ug/L	134	200	100	EPA 8260C Certifications:	08/09/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	08/09/2023 15:56	SMA
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	4.47	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
107-13-1	Acrylonitrile	ND		ug/L	4.22	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
71-43-2	Benzene	ND		ug/L	2.79	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
74-97-5	Bromochloromethane	ND		ug/L	3.54	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 14:32	SMA
75-27-4	Bromodichloromethane	ND		ug/L	2.45	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
75-25-2	Bromoform	ND		ug/L	1.63	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
74-83-9	Bromomethane	ND		ug/L	1.19	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
75-15-0	Carbon disulfide	ND		ug/L	3.62	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
56-23-5	Carbon tetrachloride	ND		ug/L	2.04	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA
108-90-7	Chlorobenzene	ND		ug/L	2.84	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 14:32	SMA

Sample Information

Client Sample ID: 19MW16 **York Sample ID:** 23H0110-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 11:30 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	4.48	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-66-3	Chloroform	ND		ug/L	2.43	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-87-3	Chloromethane	ND		ug/L	3.72	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	2.94	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	2.62	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
110-82-7	Cyclohexane	ND		ug/L	4.91	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
124-48-1	Dibromochloromethane	ND		ug/L	1.46	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-95-3	Dibromomethane	ND		ug/L	2.03	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-71-8	Dichlorodifluoromethane	ND		ug/L	4.51	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
100-41-4	Ethyl Benzene	ND		ug/L	2.90	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-68-3	Hexachlorobutadiene	ND		ug/L	2.41	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
98-82-8	Isopropylbenzene	ND		ug/L	4.05	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-20-9	Methyl acetate	ND		ug/L	4.42	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	2.44	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-87-2	Methylcyclohexane	ND		ug/L	4.77	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-09-2	**Methylene chloride**	**11.1**	J	ug/L	3.97	20.0	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
91-20-3	Naphthalene	ND		ug/L	2.12	20.0	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
104-51-8	n-Butylbenzene	ND		ug/L	3.99	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
103-65-1	n-Propylbenzene	ND		ug/L	3.84	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-47-6	**o-Xylene**	**3.20**	J	ug/L	2.61	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
179601-23-1	**p- & m- Xylenes**	**11.7**		ug/L	5.78	10.0	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
105-05-5	* p-Diethylbenzene	ND		ug/L	3.41	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA
622-96-8	* **p-Ethyltoluene**	**2.20**	J	ug/L	2.00	5.00	10	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 14:32	SMA

Sample Information

Client Sample ID: 19MW16 **York Sample ID:** 23H0110-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 11:30 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
99-87-6	p-Isopropyltoluene	ND		ug/L	3.77	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
135-98-8	sec-Butylbenzene	ND		ug/L	4.44	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
100-42-5	Styrene	ND		ug/L	2.55	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	6.08	10.0	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-06-6	tert-Butylbenzene	ND		ug/L	3.67	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	2.39	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-88-3	Toluene	ND		ug/L	3.46	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	2.79	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	2.29	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
79-01-6	Trichloroethylene	ND		ug/L	2.49	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-69-4	Trichlorofluoromethane	ND		ug/L	3.37	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-01-4	Vinyl Chloride	ND		ug/L	4.69	5.00	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
1330-20-7	**Xylenes, Total**	**14.9**	J	ug/L	8.36	15.0	10	EPA 8260C	08/08/2023 09:00	08/08/2023 14:32	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*100 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*101 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*101 %*	*79-122*

Sample Information

Client Sample ID: 19MW7 **York Sample ID:** 23H0110-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 12:30 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: 19MW7 **York Sample ID:** 23H0110-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 12:30 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.216	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.266	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.256	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.286	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-34-3	1,1-Dichloroethane	ND		ug/L	0.272	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.222	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.273	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.138	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.310	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.432	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	0.215	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.270	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.347	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.283	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND		ug/L	0.260	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.311	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	35.3	80.0	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	**2-Butanone**	**2.66**		ug/L	0.421	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
591-78-6	2-Hexanone	ND		ug/L	0.320	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW7 **York Sample ID:** 23H0110-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 12:30 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	**4-Methyl-2-pentanone**	**1.11**		ug/L	0.365	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
67-64-1	**Acetone**	**62.0**	ICVE	ug/L	1.34	2.00	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	0.447	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
107-13-1	Acrylonitrile	ND		ug/L	0.422	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
71-43-2	**Benzene**	**8.43**		ug/L	0.279	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
74-97-5	Bromochloromethane	ND		ug/L	0.354	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		ug/L	0.245	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-25-2	Bromoform	ND		ug/L	0.163	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-83-9	Bromomethane	ND		ug/L	0.119	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-15-0	Carbon disulfide	ND		ug/L	0.362	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
56-23-5	Carbon tetrachloride	ND		ug/L	0.204	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-90-7	**Chlorobenzene**	**0.530**		ug/L	0.284	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
75-00-3	Chloroethane	ND		ug/L	0.448	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
67-66-3	**Chloroform**	**0.490**	J	ug/L	0.243	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
74-87-3	Chloromethane	ND		ug/L	0.372	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.294	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.262	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
110-82-7	Cyclohexane	ND		ug/L	0.491	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		ug/L	0.146	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-95-3	Dibromomethane	ND		ug/L	0.203	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.451	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	**Ethyl Benzene**	**1.56**		ug/L	0.290	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.241	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 15:00	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

Sample Information

Client Sample ID: 19MW7 **York Sample ID:** 23H0110-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 12:30 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/L	0.405	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
79-20-9	Methyl acetate	ND		ug/L	0.442	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	SMA
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.244	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
108-87-2	Methylcyclohexane	ND		ug/L	0.477	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	SMA
75-09-2	Methylene chloride	ND		ug/L	0.397	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
91-20-3	Naphthalene	ND		ug/L	0.212	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	SMA
104-51-8	n-Butylbenzene	ND		ug/L	0.399	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
103-65-1	n-Propylbenzene	ND		ug/L	0.384	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
95-47-6	**o-Xylene**	**2.90**		ug/L	0.261	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	SMA
179601-23-1	**p- & m- Xylenes**	**5.41**		ug/L	0.578	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	SMA
105-05-5	* p-Diethylbenzene	ND		ug/L	0.341	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA
99-87-6	**p-Isopropyltoluene**	**0.410**	J	ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	0.444	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
100-42-5	**Styrene**	**0.480**	J	ug/L	0.255	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.608	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	0.367	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	0.239	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
108-88-3	**Toluene**	**1.30**		ug/L	0.346	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.229	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
79-01-6	Trichloroethylene	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	0.337	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	SMA

Sample Information

Client Sample ID: 19MW7 **York Sample ID:** 23H0110-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 12:30 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.469	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
1330-20-7	**Xylenes, Total**	**8.31**		ug/L	0.836	1.50	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:00	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*102 %*	*79-122*

Sample Information

Client Sample ID: 19MW17D **York Sample ID:** 23H0110-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:45 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.216	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.266	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.256	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.286	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-34-3	1,1-Dichloroethane	ND		ug/L	0.272	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.222	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.273	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.138	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.310	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW17D

York Sample ID: 23H0110-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:45 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.432	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	0.215	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.270	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.347	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.283	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND		ug/L	0.260	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.311	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	35.3	80.0	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	0.421	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND		ug/L	0.320	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.365	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-64-1	**Acetone**	**1520**	ICVE	ug/L	33.5	50.0	25	EPA 8260C Certifications:	08/09/2023 09:00	08/09/2023 16:24	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	0.447	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-13-1	Acrylonitrile	ND		ug/L	0.422	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-43-2	**Benzene**	**7880**		ug/L	27.9	50.0	100	EPA 8260C Certifications:	08/09/2023 09:00	08/09/2023 16:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
74-97-5	Bromochloromethane	ND		ug/L	0.354	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-27-4	Bromodichloromethane	ND		ug/L	0.245	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-25-2	Bromoform	ND		ug/L	0.163	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-83-9	Bromomethane	ND		ug/L	0.119	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-15-0	**Carbon disulfide**	**0.650**		ug/L	0.362	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
56-23-5	Carbon tetrachloride	ND		ug/L	0.204	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW17D

York Sample ID: 23H0110-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:45 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/L	0.284	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
75-00-3	Chloroethane	ND		ug/L	0.448	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
67-66-3	Chloroform	ND		ug/L	0.243	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
74-87-3	Chloromethane	ND		ug/L	0.372	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.294	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.262	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
110-82-7	Cyclohexane	ND		ug/L	0.491	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
124-48-1	Dibromochloromethane	ND		ug/L	0.146	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
74-95-3	Dibromomethane	ND		ug/L	0.203	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.451	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
100-41-4	Ethyl Benzene	ND		ug/L	0.290	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
87-68-3	Hexachlorobutadiene	ND		ug/L	0.241	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
98-82-8	Isopropylbenzene	ND		ug/L	0.405	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
79-20-9	Methyl acetate	ND		ug/L	0.442	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.244	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
108-87-2	Methylcyclohexane	ND		ug/L	0.477	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
75-09-2	Methylene chloride	ND		ug/L	0.397	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
91-20-3	Naphthalene	ND		ug/L	0.212	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
104-51-8	n-Butylbenzene	ND		ug/L	0.399	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
103-65-1	n-Propylbenzene	ND		ug/L	0.384	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
95-47-6	o-Xylene	ND		ug/L	0.261	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 15:29	SMA
179601-23-1	p- & m- Xylenes	ND		ug/L	0.578	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 15:29	SMA
105-05-5	* p-Diethylbenzene	ND		ug/L	0.341	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA

Sample Information

Client Sample ID: 19MW17D **York Sample ID:** 23H0110-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:45 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:29	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	0.444	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
100-42-5	Styrene	ND		ug/L	0.255	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
75-65-0	**tert-Butyl alcohol (TBA)**	**11.8**		ug/L	0.608	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:29	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	0.367	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	0.239	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
108-88-3	Toluene	ND		ug/L	0.346	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.229	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
79-01-6	Trichloroethylene	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	0.337	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
75-01-4	Vinyl Chloride	ND		ug/L	0.469	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:29	SMA
1330-20-7	Xylenes, Total	ND		ug/L	0.836	1.50	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/08/2023 15:29	SMA

	Surrogate Recoveries	Result		Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*3.00 %*	S-08	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*103 %*		*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*105 %*		*79-122*

Sample Information

Client Sample ID: 19MW17S **York Sample ID:** 23H0110-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:15 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Information

Client Sample ID: 19MW17S

York Sample ID: 23H0110-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:15 am	08/02/2023

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-55-6	1,1,1-Trichloroethane	ND		ug/L	1.33	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	1.43	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-00-5	1,1,2-Trichloroethane	ND		ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-34-3	1,1-Dichloroethane	ND		ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	1.11	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.36	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.690	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	1.55	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.16	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	1.08	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	1.35	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND		ug/L	1.64	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	1.74	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	1.42	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND		ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	1.56	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	176	400	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	2.10	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND		ug/L	1.60	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND		ug/L	1.82	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 19MW17S

York Sample ID: 23H0110-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:15 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**19.4**	ICVE	ug/L	6.70	10.0	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	2.24	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
107-13-1	Acrylonitrile	ND		ug/L	2.11	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
71-43-2	**Benzene**	**18.2**		ug/L	1.40	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
74-97-5	Bromochloromethane	ND		ug/L	1.77	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		ug/L	1.22	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-25-2	Bromoform	ND		ug/L	0.815	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-83-9	Bromomethane	ND		ug/L	0.595	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-15-0	Carbon disulfide	ND		ug/L	1.81	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
56-23-5	Carbon tetrachloride	ND		ug/L	1.02	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-90-7	**Chlorobenzene**	**6.10**		ug/L	1.42	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
75-00-3	Chloroethane	ND		ug/L	2.24	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
67-66-3	Chloroform	ND		ug/L	1.22	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-87-3	Chloromethane	ND		ug/L	1.86	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	1.47	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	1.31	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
110-82-7	Cyclohexane	ND		ug/L	2.46	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		ug/L	0.730	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-95-3	Dibromomethane	ND		ug/L	1.02	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.26	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	Ethyl Benzene	ND		ug/L	1.45	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
87-68-3	Hexachlorobutadiene	ND		ug/L	1.20	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-82-8	Isopropylbenzene	ND		ug/L	2.02	2.50	5	EPA 8260C	08/08/2023 09:00	08/08/2023 15:57	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		

Sample Information

Client Sample ID: 19MW17S

York Sample ID: 23H0110-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:15 am	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		ug/L	2.21	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:57	SMA
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	1.22	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
108-87-2	Methylcyclohexane	ND		ug/L	2.38	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:57	SMA
75-09-2	**Methylene chloride**	**6.30**	J	ug/L	1.98	10.0	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	08/08/2023 15:57	SMA
91-20-3	Naphthalene	ND		ug/L	1.06	10.0	5	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:57	SMA
104-51-8	n-Butylbenzene	ND		ug/L	2.00	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
103-65-1	n-Propylbenzene	ND		ug/L	1.92	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
95-47-6	o-Xylene	ND		ug/L	1.30	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 15:57	SMA
179601-23-1	p- & m- Xylenes	ND		ug/L	2.89	5.00	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 15:57	SMA
105-05-5	* p-Diethylbenzene	ND		ug/L	1.70	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	1.00	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 15:57	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	1.88	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	2.22	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
100-42-5	Styrene	ND		ug/L	1.28	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	3.04	5.00	5	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 15:57	SMA
98-06-6	**tert-Butylbenzene**	**4.55**		ug/L	1.84	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA	08/08/2023 15:57	SMA
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	1.20	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
108-88-3	Toluene	ND		ug/L	1.73	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	1.40	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	1.14	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
79-01-6	Trichloroethylene	ND		ug/L	1.24	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	1.68	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA
75-01-4	Vinyl Chloride	ND		ug/L	2.34	2.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 15:57	SMA

Sample Information

Client Sample ID: 19MW17S **York Sample ID:** 23H0110-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 9:15 am	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1330-20-7	Xylenes, Total	ND		ug/L	4.18	7.50	5	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/08/2023 15:57	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*101 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*104 %*	*79-122*

Sample Information

Client Sample ID: 19MW30 **York Sample ID:** 23H0110-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:35 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.216	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.266	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.256	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.286	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
75-34-3	1,1-Dichloroethane	ND		ug/L	0.272	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.222	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 16:26	SMA
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.273	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 16:26	SMA
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.138	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 16:26	SMA
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.310	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.432	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA

Sample Information

Client Sample ID: 19MW30 **York Sample ID:** 23H0110-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:35 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	0.215	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.270	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.377	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
78-87-5	1,2-Dichloropropane	ND		ug/L	0.327	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.347	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.283	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
142-28-9	1,3-Dichloropropane	ND		ug/L	0.260	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.311	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
123-91-1	1,4-Dioxane	ND		ug/L	35.3	80.0	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
78-93-3	2-Butanone	ND		ug/L	0.421	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
591-78-6	2-Hexanone	ND		ug/L	0.320	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.365	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
67-64-1	**Acetone**	**5.21**	ICVE	ug/L	1.34	2.00	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	0.447	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
107-13-1	Acrylonitrile	ND		ug/L	0.422	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
71-43-2	Benzene	ND		ug/L	0.279	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-97-5	Bromochloromethane	ND		ug/L	0.354	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		ug/L	0.245	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-25-2	Bromoform	ND		ug/L	0.163	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
74-83-9	Bromomethane	ND		ug/L	0.119	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
75-15-0	Carbon disulfide	ND		ug/L	0.362	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
56-23-5	Carbon tetrachloride	ND		ug/L	0.204	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI		
108-90-7	**Chlorobenzene**	**1.64**		ug/L	0.284	0.500	1	EPA 8260C	08/08/2023 09:00	08/08/2023 16:26	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA		

Sample Information

Client Sample ID: 19MW30 **York Sample ID:** 23H0110-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:35 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	0.448	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-66-3	Chloroform	ND		ug/L	0.243	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-87-3	Chloromethane	ND		ug/L	0.372	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.294	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.262	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
110-82-7	Cyclohexane	ND		ug/L	0.491	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
124-48-1	Dibromochloromethane	ND		ug/L	0.146	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-95-3	Dibromomethane	ND		ug/L	0.203	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.451	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
100-41-4	Ethyl Benzene	ND		ug/L	0.290	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-68-3	Hexachlorobutadiene	ND		ug/L	0.241	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
98-82-8	Isopropylbenzene	ND		ug/L	0.405	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-20-9	Methyl acetate	ND		ug/L	0.442	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.244	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-87-2	Methylcyclohexane	ND		ug/L	0.477	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-09-2	Methylene chloride	ND		ug/L	0.397	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
91-20-3	Naphthalene	ND		ug/L	0.212	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
104-51-8	n-Butylbenzene	ND		ug/L	0.399	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
103-65-1	n-Propylbenzene	ND		ug/L	0.384	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-47-6	o-Xylene	ND		ug/L	0.261	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
179601-23-1	p- & m- Xylenes	ND		ug/L	0.578	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
105-05-5	* p-Diethylbenzene	ND		ug/L	0.341	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:26	SMA

Sample Information

Client Sample ID: 19MW30 **York Sample ID:** 23H0110-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 1:35 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
99-87-6	p-Isopropyltoluene	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	0.444	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
100-42-5	Styrene	ND		ug/L	0.255	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.608	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 16:26	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	0.367	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	0.239	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
108-88-3	Toluene	ND		ug/L	0.346	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.229	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
79-01-6	Trichloroethylene	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	0.337	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
75-01-4	Vinyl Chloride	ND		ug/L	0.469	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:26	SMA
1330-20-7	Xylenes, Total	ND		ug/L	0.836	1.50	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/08/2023 16:26	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*100 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*101 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Sample Information

Client Sample ID: 21MW3 **York Sample ID:** 23H0110-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 2:10 pm	08/02/2023

VOA, 8260 Low Comprehensive **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: 21MW3 **York Sample ID:** 23H0110-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 2:10 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	5.40	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-55-6	1,1,1-Trichloroethane	ND		ug/L	6.65	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	6.40	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	7.15	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-00-5	1,1,2-Trichloroethane	ND		ug/L	6.22	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-34-3	1,1-Dichloroethane	ND		ug/L	6.80	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-35-4	1,1-Dichloroethylene	ND		ug/L	8.18	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	5.55	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	6.82	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	3.45	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	7.75	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	10.8	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	5.38	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	6.75	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	9.42	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND		ug/L	8.18	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	8.68	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	7.08	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND		ug/L	6.50	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	7.78	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	882	2000	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	10.5	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND		ug/L	8.00	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 21MW3 **York Sample ID:** 23H0110-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 2:10 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/L	9.12	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-64-1	**Acetone**	**339**	ICVE	ug/L	33.5	50.0	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	11.2	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-13-1	Acrylonitrile	ND		ug/L	10.6	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-43-2	**Benzene**	**11.0**	J	ug/L	6.98	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
74-97-5	Bromochloromethane	ND		ug/L	8.85	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-27-4	Bromodichloromethane	ND		ug/L	6.12	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-25-2	Bromoform	ND		ug/L	4.08	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-83-9	Bromomethane	ND		ug/L	2.98	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-15-0	Carbon disulfide	ND		ug/L	9.05	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
56-23-5	Carbon tetrachloride	ND		ug/L	5.10	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-90-7	Chlorobenzene	ND		ug/L	7.10	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-00-3	**Chloroethane**	**35.8**		ug/L	11.2	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
67-66-3	Chloroform	ND		ug/L	6.08	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-87-3	Chloromethane	ND		ug/L	9.30	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	7.35	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	6.55	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
110-82-7	Cyclohexane	ND		ug/L	12.3	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
124-48-1	Dibromochloromethane	ND		ug/L	3.65	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-95-3	Dibromomethane	ND		ug/L	5.08	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-71-8	Dichlorodifluoromethane	ND		ug/L	11.3	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
100-41-4	Ethyl Benzene	ND		ug/L	7.25	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
87-68-3	Hexachlorobutadiene	ND		ug/L	6.02	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP

Sample Information

Client Sample ID: 21MW3 **York Sample ID:** 23H0110-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 2:10 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/L	10.1	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-20-9	Methyl acetate	ND		ug/L	11.0	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	6.10	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-87-2	Methylcyclohexane	ND		ug/L	11.9	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-09-2	**Methylene chloride**	**20.2**	J	ug/L	9.92	50.0	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PA
91-20-3	Naphthalene	ND		ug/L	5.30	50.0	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
104-51-8	n-Butylbenzene	ND		ug/L	9.98	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
103-65-1	n-Propylbenzene	ND		ug/L	9.60	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-47-6	o-Xylene	ND		ug/L	6.52	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
179601-23-1	p- & m- Xylenes	ND		ug/L	14.4	25.0	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP
105-05-5	* p-Diethylbenzene	ND		ug/L	8.52	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA
622-96-8	* p-Ethyltoluene	ND		ug/L	5.00	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	9.42	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
135-98-8	sec-Butylbenzene	ND		ug/L	11.1	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
100-42-5	Styrene	ND		ug/L	6.38	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	15.2	25.0	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
98-06-6	tert-Butylbenzene	ND		ug/L	9.18	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	5.98	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-88-3	Toluene	ND		ug/L	8.65	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	6.98	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	5.72	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
79-01-6	Trichloroethylene	ND		ug/L	6.22	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-69-4	Trichlorofluoromethane	ND		ug/L	8.42	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 16:54	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: 21MW3 **York Sample ID:** 23H0110-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 2:10 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	11.7	12.5	25	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 16:54	SMA
1330-20-7	Xylenes, Total	ND		ug/L	20.9	37.5	25	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/08/2023 16:54	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*103 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.8 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*100 %*	*79-122*

Sample Information

Client Sample ID: Field Blank **York Sample ID:** 23H0110-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 3:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.216	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.266	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.256	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.286	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-34-3	1,1-Dichloroethane	ND		ug/L	0.272	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.222	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.273	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.138	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.310	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA

Sample Information

Client Sample ID: **Field Blank** **York Sample ID:** **23H0110-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 3:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.432	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
106-93-4	1,2-Dibromoethane	ND		ug/L	0.215	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.270	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-06-2	1,2-Dichloroethane	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
78-87-5	1,2-Dichloropropane	ND		ug/L	0.327	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.347	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.283	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
142-28-9	1,3-Dichloropropane	ND		ug/L	0.260	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.311	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
123-91-1	1,4-Dioxane	ND		ug/L	35.3	80.0	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
78-93-3	2-Butanone	ND		ug/L	0.421	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
591-78-6	2-Hexanone	ND		ug/L	0.320	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.365	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
67-64-1	Acetone	ND	ICVE	ug/L	1.34	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-02-8	Acrolein	ND	CCVE, ICVE	ug/L	0.447	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
107-13-1	Acrylonitrile	ND		ug/L	0.422	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
71-43-2	Benzene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-97-5	Bromochloromethane	ND		ug/L	0.354	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP
75-27-4	Bromodichloromethane	ND		ug/L	0.245	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-25-2	Bromoform	ND		ug/L	0.163	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
74-83-9	Bromomethane	ND		ug/L	0.119	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
75-15-0	Carbon disulfide	ND		ug/L	0.362	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI
56-23-5	Carbon tetrachloride	ND		ug/L	0.204	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI

Sample Information

Client Sample ID: Field Blank

York Sample ID: 23H0110-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 3:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/L	0.284	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-00-3	Chloroethane	ND		ug/L	0.448	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
67-66-3	Chloroform	ND		ug/L	0.243	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
74-87-3	Chloromethane	ND		ug/L	0.372	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.294	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.262	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
110-82-7	Cyclohexane	ND		ug/L	0.491	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
124-48-1	Dibromochloromethane	ND		ug/L	0.146	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
74-95-3	Dibromomethane	ND		ug/L	0.203	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.451	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
100-41-4	Ethyl Benzene	ND		ug/L	0.290	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
87-68-3	Hexachlorobutadiene	ND		ug/L	0.241	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
98-82-8	Isopropylbenzene	ND		ug/L	0.405	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
79-20-9	Methyl acetate	ND		ug/L	0.442	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.244	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
108-87-2	Methylcyclohexane	ND		ug/L	0.477	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
75-09-2	Methylene chloride	ND		ug/L	0.397	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
91-20-3	Naphthalene	ND		ug/L	0.212	2.00	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
104-51-8	n-Butylbenzene	ND		ug/L	0.399	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
103-65-1	n-Propylbenzene	ND		ug/L	0.384	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
95-47-6	o-Xylene	ND		ug/L	0.261	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 17:23	SMA
179601-23-1	p- & m- Xylenes	ND		ug/L	0.578	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	08/08/2023 17:23	SMA
105-05-5	* p-Diethylbenzene	ND		ug/L	0.341	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA

Sample Information

Client Sample ID: **Field Blank** **York Sample ID:** **23H0110-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23H0110	334 Wallabout Street, Brooklyn, NY	Ground Water	August 1, 2023 3:00 pm	08/02/2023

VOA, 8260 Low Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00	08/08/2023 17:23	SMA
99-87-6	p-Isopropyltoluene	ND		ug/L	0.377	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
135-98-8	sec-Butylbenzene	ND		ug/L	0.444	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
100-42-5	Styrene	ND		ug/L	0.255	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.608	1.00	1	EPA 8260C Certifications:	08/08/2023 09:00 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/08/2023 17:23	SMA
98-06-6	tert-Butylbenzene	ND		ug/L	0.367	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
127-18-4	Tetrachloroethylene	ND	CCVE, ICVE, QL-02	ug/L	0.239	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
108-88-3	Toluene	ND		ug/L	0.346	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.279	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.229	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
79-01-6	Trichloroethylene	ND		ug/L	0.249	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	0.337	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
75-01-4	Vinyl Chloride	ND		ug/L	0.469	0.500	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	08/08/2023 17:23	SMA
1330-20-7	Xylenes, Total	ND		ug/L	0.836	1.50	1	EPA 8260C Certifications:	08/08/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	08/08/2023 17:23	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*103 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.8 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*100 %*	*79-122*

Analytical Batch Summary

Batch ID: BH30320 **Preparation Method:** EPA 5030B **Prepared By:** SMA

YORK Sample ID	Client Sample ID	Preparation Date
23H0110-01	19MW2	08/04/23
23H0110-02	19MW3	08/04/23
23H0110-03	19MW5	08/04/23
BH30320-BLK1	Blank	08/04/23
BH30320-BS1	LCS	08/04/23
BH30320-BSD1	LCS Dup	08/04/23

Batch ID: BH30480 **Preparation Method:** EPA 5030B **Prepared By:** SMA

YORK Sample ID	Client Sample ID	Preparation Date
23H0110-04	19MW16	08/08/23
23H0110-05	19MW7	08/08/23
23H0110-06	19MW17D	08/08/23
23H0110-07	19MW17S	08/08/23
23H0110-08	19MW30	08/08/23
23H0110-09	21MW3	08/08/23
23H0110-10	Field Blank	08/08/23
BH30480-BLK1	Blank	08/08/23
BH30480-BS1	LCS	08/08/23
BH30480-BSD1	LCS Dup	08/08/23

Batch ID: BH30574 **Preparation Method:** EPA 5030B **Prepared By:** SMA

YORK Sample ID	Client Sample ID	Preparation Date
23H0110-04RE1	19MW16	08/09/23
23H0110-06RE1	19MW17D	08/09/23
23H0110-06RE2	19MW17D	08/09/23
BH30574-BLK1	Blank	08/09/23
BH30574-BS1	LCS	08/09/23
BH30574-BSD1	LCS Dup	08/09/23

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30320 - EPA 5030B											
Blank (BH30320-BLK1)									Prepared & Analyzed: 08/04/2023		
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,2,3-Trichlorobenzene	ND	0.500	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
1,4-Dioxane	ND	80.0	"								
2-Butanone	ND	0.500	"								
2-Hexanone	ND	0.500	"								
4-Methyl-2-pentanone	ND	0.500	"								
Acetone	ND	2.00	"								
Acrolein	ND	0.500	"								
Acrylonitrile	ND	0.500	"								
Benzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon disulfide	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Cyclohexane	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl acetate	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30320 - EPA 5030B											
Blank (BH30320-BLK1)									Prepared & Analyzed: 08/04/2023		
Methylcyclohexane	ND	0.500	ug/L								
Methylene chloride	ND	2.00	"								
Naphthalene	0.220	2.00	"								
n-Butylbenzene	ND	0.500	"								
n-Propylbenzene	ND	0.500	"								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Diethylbenzene	ND	0.500	"								
p-Ethyltoluene	ND	0.500	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butyl alcohol (TBA)	ND	1.00	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.2*		*"*	*10.0*		*102*	*69-130*				
Surrogate: SURR: Toluene-d8	*8.72*		*"*	*10.0*		*87.2*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.81*		*"*	*10.0*		*98.1*	*79-122*				
LCS (BH30320-BS1)									Prepared & Analyzed: 08/04/2023		
1,1,1,2-Tetrachloroethane	8.87		ug/L	10.0		88.7	82-126				
1,1,1-Trichloroethane	9.88		"	10.0		98.8	78-136				
1,1,2,2-Tetrachloroethane	8.90		"	10.0		89.0	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	54-165				
1,1,2-Trichloroethane	8.51		"	10.0		85.1	82-123				
1,1-Dichloroethane	8.56		"	10.0		85.6	82-129				
1,1-Dichloroethylene	8.90		"	10.0		89.0	68-138				
1,2,3-Trichlorobenzene	9.20		"	10.0		92.0	76-136				
1,2,3-Trichloropropane	8.03		"	10.0		80.3	77-128				
1,2,4-Trichlorobenzene	8.95		"	10.0		89.5	76-137				
1,2,4-Trimethylbenzene	8.48		"	10.0		84.8	82-132				
1,2-Dibromo-3-chloropropane	8.21		"	10.0		82.1	45-147				
1,2-Dibromoethane	8.79		"	10.0		87.9	83-124				
1,2-Dichlorobenzene	8.73		"	10.0		87.3	79-123				
1,2-Dichloroethane	9.09		"	10.0		90.9	73-132				
1,2-Dichloropropane	8.38		"	10.0		83.8	78-126				
1,3,5-Trimethylbenzene	8.35		"	10.0		83.5	80-131				
1,3-Dichlorobenzene	8.77		"	10.0		87.7	86-122				
1,3-Dichloropropane	8.32		"	10.0		83.2	81-125				
1,4-Dichlorobenzene	8.68		"	10.0		86.8	85-124				
1,4-Dioxane	280		"	210		133	10-349				
2-Butanone	8.24		"	10.0		82.4	49-152				
2-Hexanone	6.25		"	10.0		62.5	51-146				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30320 - EPA 5030B											
LCS (BH30320-BS1)								Prepared & Analyzed: 08/04/2023			
4-Methyl-2-pentanone	5.72		ug/L	10.0		57.2	57-145				
Acetone	4.50		"	10.0		45.0	14-150				
Acrolein	8.85		"	25.0		35.4	10-153				
Acrylonitrile	7.38		"	10.0		73.8	51-150				
Benzene	9.28		"	10.0		92.8	85-126				
Bromochloromethane	8.45		"	10.0		84.5	77-128				
Bromodichloromethane	8.47		"	10.0		84.7	79-128				
Bromoform	8.34		"	10.0		83.4	78-133				
Bromomethane	6.35		"	10.0		63.5	43-168				
Carbon disulfide	9.34		"	10.0		93.4	68-146				
Carbon tetrachloride	10.1		"	10.0		101	77-141				
Chlorobenzene	9.31		"	10.0		93.1	88-120				
Chloroethane	10.1		"	10.0		101	65-136				
Chloroform	9.33		"	10.0		93.3	82-128				
Chloromethane	8.46		"	10.0		84.6	43-155				
cis-1,2-Dichloroethylene	8.98		"	10.0		89.8	83-129				
cis-1,3-Dichloropropylene	8.45		"	10.0		84.5	80-131				
Cyclohexane	10.6		"	10.0		106	63-149				
Dibromochloromethane	8.65		"	10.0		86.5	80-130				
Dibromomethane	8.50		"	10.0		85.0	72-134				
Dichlorodifluoromethane	12.9		"	10.0		129	44-144				
Ethyl Benzene	8.51		"	10.0		85.1	80-131				
Hexachlorobutadiene	9.45		"	10.0		94.5	67-146				
Isopropylbenzene	8.67		"	10.0		86.7	76-140				
Methyl acetate	7.98		"	10.0		79.8	51-139				
Methyl tert-butyl ether (MTBE)	8.80		"	10.0		88.0	76-135				
Methylcyclohexane	9.10		"	10.0		91.0	72-143				
Methylene chloride	8.07		"	10.0		80.7	55-137				
Naphthalene	8.42		"	10.0		84.2	70-147				
n-Butylbenzene	8.20		"	10.0		82.0	79-132				
n-Propylbenzene	8.44		"	10.0		84.4	78-133				
o-Xylene	8.43		"	10.0		84.3	78-130				
p- & m- Xylenes	16.8		"	20.0		84.0	77-133				
p-Diethylbenzene	8.63		"	10.0		86.3	84-134				
p-Ethyltoluene	8.97		"	10.0		89.7	88-129				
p-Isopropyltoluene	8.48		"	10.0		84.8	81-136				
sec-Butylbenzene	8.57		"	10.0		85.7	79-137				
Styrene	8.54		"	10.0		85.4	67-132				
tert-Butyl alcohol (TBA)	56.7		"	50.0		113	25-162				
tert-Butylbenzene	8.55		"	10.0		85.5	77-138				
Tetrachloroethylene	5.20		"	10.0		52.0	82-131	Low Bias			
Toluene	8.31		"	10.0		83.1	80-127				
trans-1,2-Dichloroethylene	8.96		"	10.0		89.6	80-132				
trans-1,3-Dichloropropylene	8.12		"	10.0		81.2	78-131				
Trichloroethylene	8.36		"	10.0		83.6	82-128				
Trichlorofluoromethane	11.6		"	10.0		116	67-139				
Vinyl Chloride	11.6		"	10.0		116	58-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.25*		*"*	*10.0*		*92.5*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.24*		*"*	*10.0*		*92.4*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.79*		*"*	*10.0*		*97.9*	*79-122*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30320 - EPA 5030B											
LCS Dup (BH30320-BSD1)								Prepared & Analyzed: 08/04/2023			
1,1,1,2-Tetrachloroethane	8.84		ug/L	10.0		88.4	82-126		0.339	30	
1,1,1-Trichloroethane	9.52		"	10.0		95.2	78-136		3.71	30	
1,1,2,2-Tetrachloroethane	8.62		"	10.0		86.2	76-129		3.20	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6		"	10.0		106	54-165		4.07	30	
1,1,2-Trichloroethane	8.36		"	10.0		83.6	82-123		1.78	30	
1,1-Dichloroethane	8.12		"	10.0		81.2	82-129	Low Bias	5.28	30	
1,1-Dichloroethylene	8.83		"	10.0		88.3	68-138		0.790	30	
1,2,3-Trichlorobenzene	8.00		"	10.0		80.0	76-136		14.0	30	
1,2,3-Trichloropropane	8.22		"	10.0		82.2	77-128		2.34	30	
1,2,4-Trichlorobenzene	8.53		"	10.0		85.3	76-137		4.81	30	
1,2,4-Trimethylbenzene	8.36		"	10.0		83.6	82-132		1.43	30	
1,2-Dibromo-3-chloropropane	7.34		"	10.0		73.4	45-147		11.2	30	
1,2-Dibromoethane	8.55		"	10.0		85.5	83-124		2.77	30	
1,2-Dichlorobenzene	8.57		"	10.0		85.7	79-123		1.85	30	
1,2-Dichloroethane	8.61		"	10.0		86.1	73-132		5.42	30	
1,2-Dichloropropane	8.29		"	10.0		82.9	78-126		1.08	30	
1,3,5-Trimethylbenzene	8.19		"	10.0		81.9	80-131		1.93	30	
1,3-Dichlorobenzene	8.62		"	10.0		86.2	86-122		1.73	30	
1,3-Dichloropropane	8.05		"	10.0		80.5	81-125	Low Bias	3.30	30	
1,4-Dichlorobenzene	8.50		"	10.0		85.0	85-124		2.10	30	
1,4-Dioxane	244		"	210		116	10-349		13.8	30	
2-Butanone	7.53		"	10.0		75.3	49-152		9.00	30	
2-Hexanone	5.84		"	10.0		58.4	51-146		6.78	30	
4-Methyl-2-pentanone	5.54		"	10.0		55.4	57-145	Low Bias	3.20	30	
Acetone	5.96		"	10.0		59.6	14-150		27.9	30	
Acrolein	9.27		"	25.0		37.1	10-153		4.64	30	
Acrylonitrile	8.10		"	10.0		81.0	51-150		9.30	30	
Benzene	8.92		"	10.0		89.2	85-126		3.96	30	
Bromochloromethane	8.25		"	10.0		82.5	77-128		2.40	30	
Bromodichloromethane	8.24		"	10.0		82.4	79-128		2.75	30	
Bromoform	7.97		"	10.0		79.7	78-133		4.54	30	
Bromomethane	5.92		"	10.0		59.2	43-168		7.01	30	
Carbon disulfide	8.84		"	10.0		88.4	68-146		5.50	30	
Carbon tetrachloride	9.71		"	10.0		97.1	77-141		4.23	30	
Chlorobenzene	9.27		"	10.0		92.7	88-120		0.431	30	
Chloroethane	9.49		"	10.0		94.9	65-136		6.03	30	
Chloroform	8.97		"	10.0		89.7	82-128		3.93	30	
Chloromethane	8.12		"	10.0		81.2	43-155		4.10	30	
cis-1,2-Dichloroethylene	8.55		"	10.0		85.5	83-129		4.91	30	
cis-1,3-Dichloropropylene	8.16		"	10.0		81.6	80-131		3.49	30	
Cyclohexane	9.95		"	10.0		99.5	63-149		5.85	30	
Dibromochloromethane	8.35		"	10.0		83.5	80-130		3.53	30	
Dibromomethane	8.40		"	10.0		84.0	72-134		1.18	30	
Dichlorodifluoromethane	12.7		"	10.0		127	44-144		1.56	30	
Ethyl Benzene	8.49		"	10.0		84.9	80-131		0.235	30	
Hexachlorobutadiene	8.81		"	10.0		88.1	67-146		7.01	30	
Isopropylbenzene	8.59		"	10.0		85.9	76-140		0.927	30	
Methyl acetate	7.58		"	10.0		75.8	51-139		5.14	30	
Methyl tert-butyl ether (MTBE)	8.27		"	10.0		82.7	76-135		6.21	30	
Methylcyclohexane	9.08		"	10.0		90.8	72-143		0.220	30	

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30320 - EPA 5030B											
LCS Dup (BH30320-BSD1)								Prepared & Analyzed: 08/04/2023			
Methylene chloride	7.86		ug/L	10.0		78.6	55-137		2.64	30	
Naphthalene	7.63		"	10.0		76.3	70-147		9.84	30	
n-Butylbenzene	8.10		"	10.0		81.0	79-132		1.23	30	
n-Propylbenzene	8.43		"	10.0		84.3	78-133		0.119	30	
o-Xylene	8.39		"	10.0		83.9	78-130		0.476	30	
p- & m- Xylenes	16.8		"	20.0		83.8	77-133		0.119	30	
p-Diethylbenzene	8.50		"	10.0		85.0	84-134		1.52	30	
p-Ethyltoluene	8.95		"	10.0		89.5	88-129		0.223	30	
p-Isopropyltoluene	8.46		"	10.0		84.6	81-136		0.236	30	
sec-Butylbenzene	8.49		"	10.0		84.9	79-137		0.938	30	
Styrene	8.42		"	10.0		84.2	67-132		1.42	30	
tert-Butyl alcohol (TBA)	46.3		"	50.0		92.5	25-162		20.3	30	
tert-Butylbenzene	8.46		"	10.0		84.6	77-138		1.06	30	
Tetrachloroethylene	5.26		"	10.0		52.6	82-131	Low Bias	1.15	30	
Toluene	8.33		"	10.0		83.3	80-127		0.240	30	
trans-1,2-Dichloroethylene	8.64		"	10.0		86.4	80-132		3.64	30	
trans-1,3-Dichloropropylene	7.96		"	10.0		79.6	78-131		1.99	30	
Trichloroethylene	8.89		"	10.0		88.9	82-128		6.14	30	
Trichlorofluoromethane	11.9		"	10.0		119	67-139		2.30	30	
Vinyl Chloride	11.0		"	10.0		110	58-145		5.59	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*8.77*		*"*	*10.0*		*87.7*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.39*		*"*	*10.0*		*93.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.67*		*"*	*10.0*		*96.7*	*79-122*				
Batch BH30480 - EPA 5030B											
Blank (BH30480-BLK1)								Prepared & Analyzed: 08/08/2023			
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,2,3-Trichlorobenzene	ND	0.500	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
1,4-Dioxane	ND	80.0	"								
2-Butanone	ND	0.500	"								
2-Hexanone	ND	0.500	"								
4-Methyl-2-pentanone	ND	0.500	"								

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30480 - EPA 5030B											
Blank (BH30480-BLK1)									Prepared & Analyzed: 08/08/2023		
Acetone	ND	2.00	ug/L								
Acrolein	ND	0.500	"								
Acrylonitrile	ND	0.500	"								
Benzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon disulfide	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Cyclohexane	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl acetate	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylcyclohexane	ND	0.500	"								
Methylene chloride	ND	2.00	"								
Naphthalene	ND	2.00	"								
n-Butylbenzene	ND	0.500	"								
n-Propylbenzene	ND	0.500	"								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Diethylbenzene	ND	0.500	"								
p-Ethyltoluene	ND	0.500	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butyl alcohol (TBA)	ND	1.00	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.94*		*"*	*10.0*		*99.4*	*69-130*				
Surrogate: SURR: Toluene-d8	*10.0*		*"*	*10.0*		*100*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.2*		*"*	*10.0*		*102*	*79-122*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30480 - EPA 5030B											
LCS (BH30480-BS1)								Prepared & Analyzed: 08/08/2023			
1,1,1,2-Tetrachloroethane	9.87		ug/L	10.0		98.7	82-126				
1,1,1-Trichloroethane	9.78		"	10.0		97.8	78-136				
1,1,2,2-Tetrachloroethane	11.1		"	10.0		111	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.62		"	10.0		96.2	54-165				
1,1,2-Trichloroethane	9.55		"	10.0		95.5	82-123				
1,1-Dichloroethane	9.08		"	10.0		90.8	82-129				
1,1-Dichloroethylene	9.08		"	10.0		90.8	68-138				
1,2,3-Trichlorobenzene	9.48		"	10.0		94.8	76-136				
1,2,3-Trichloropropane	9.96		"	10.0		99.6	77-128				
1,2,4-Trichlorobenzene	9.63		"	10.0		96.3	76-137				
1,2,4-Trimethylbenzene	9.97		"	10.0		99.7	82-132				
1,2-Dibromo-3-chloropropane	10.0		"	10.0		100	45-147				
1,2-Dibromoethane	9.79		"	10.0		97.9	83-124				
1,2-Dichlorobenzene	9.78		"	10.0		97.8	79-123				
1,2-Dichloroethane	9.48		"	10.0		94.8	73-132				
1,2-Dichloropropane	9.79		"	10.0		97.9	78-126				
1,3,5-Trimethylbenzene	9.82		"	10.0		98.2	80-131				
1,3-Dichlorobenzene	9.79		"	10.0		97.9	86-122				
1,3-Dichloropropane	9.62		"	10.0		96.2	81-125				
1,4-Dichlorobenzene	9.69		"	10.0		96.9	85-124				
1,4-Dioxane	502		"	210		239	10-349				
2-Butanone	9.31		"	10.0		93.1	49-152				
2-Hexanone	9.02		"	10.0		90.2	51-146				
4-Methyl-2-pentanone	9.53		"	10.0		95.3	57-145				
Acetone	6.33		"	10.0		63.3	14-150				
Acrolein	6.57		"	25.0		26.3	10-153				
Acrylonitrile	9.54		"	10.0		95.4	51-150				
Benzene	9.65		"	10.0		96.5	85-126				
Bromochloromethane	9.47		"	10.0		94.7	77-128				
Bromodichloromethane	9.62		"	10.0		96.2	79-128				
Bromoform	10.1		"	10.0		101	78-133				
Bromomethane	9.16		"	10.0		91.6	43-168				
Carbon disulfide	8.80		"	10.0		88.0	68-146				
Carbon tetrachloride	9.83		"	10.0		98.3	77-141				
Chlorobenzene	10.3		"	10.0		103	88-120				
Chloroethane	8.90		"	10.0		89.0	65-136				
Chloroform	9.43		"	10.0		94.3	82-128				
Chloromethane	8.73		"	10.0		87.3	43-155				
cis-1,2-Dichloroethylene	9.51		"	10.0		95.1	83-129				
cis-1,3-Dichloropropylene	9.62		"	10.0		96.2	80-131				
Cyclohexane	9.59		"	10.0		95.9	63-149				
Dibromochloromethane	9.82		"	10.0		98.2	80-130				
Dibromomethane	9.57		"	10.0		95.7	72-134				
Dichlorodifluoromethane	7.12		"	10.0		71.2	44-144				
Ethyl Benzene	10.0		"	10.0		100	80-131				
Hexachlorobutadiene	10.1		"	10.0		101	67-146				
Isopropylbenzene	10.2		"	10.0		102	76-140				
Methyl acetate	8.53		"	10.0		85.3	51-139				
Methyl tert-butyl ether (MTBE)	9.31		"	10.0		93.1	76-135				
Methylcyclohexane	9.83		"	10.0		98.3	72-143				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30480 - EPA 5030B											
LCS (BH30480-BS1)								Prepared & Analyzed: 08/08/2023			
Methylene chloride	8.34		ug/L	10.0		83.4	55-137				
Naphthalene	9.83		"	10.0		98.3	70-147				
n-Butylbenzene	11.1		"	10.0		111	79-132				
n-Propylbenzene	10.1		"	10.0		101	78-133				
o-Xylene	9.94		"	10.0		99.4	78-130				
p- & m- Xylenes	20.5		"	20.0		102	77-133				
p-Diethylbenzene	10.2		"	10.0		102	84-134				
p-Ethyltoluene	10.5		"	10.0		105	88-129				
p-Isopropyltoluene	10.1		"	10.0		101	81-136				
sec-Butylbenzene	10.2		"	10.0		102	79-137				
Styrene	10.1		"	10.0		101	67-132				
tert-Butyl alcohol (TBA)	47.9		"	50.0		95.8	25-162				
tert-Butylbenzene	10.2		"	10.0		102	77-138				
Tetrachloroethylene	5.30		"	10.0		53.0	82-131	Low Bias			
Toluene	9.88		"	10.0		98.8	80-127				
trans-1,2-Dichloroethylene	9.37		"	10.0		93.7	80-132				
trans-1,3-Dichloropropylene	9.67		"	10.0		96.7	78-131				
Trichloroethylene	8.98		"	10.0		89.8	82-128				
Trichlorofluoromethane	9.59		"	10.0		95.9	67-139				
Vinyl Chloride	8.90		"	10.0		89.0	58-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.85*		*"*	*10.0*		*98.5*	*69-130*				
Surrogate: SURR: Toluene-d8	*10.0*		*"*	*10.0*		*100*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.0*		*"*	*10.0*		*100*	*79-122*				
LCS Dup (BH30480-BSD1)								Prepared & Analyzed: 08/08/2023			
1,1,1,2-Tetrachloroethane	9.76		ug/L	10.0		97.6	82-126		1.12	30	
1,1,1-Trichloroethane	9.46		"	10.0		94.6	78-136		3.33	30	
1,1,2,2-Tetrachloroethane	11.2		"	10.0		112	76-129		0.717	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.29		"	10.0		92.9	54-165		3.49	30	
1,1,2-Trichloroethane	9.58		"	10.0		95.8	82-123		0.314	30	
1,1-Dichloroethane	8.90		"	10.0		89.0	82-129		2.00	30	
1,1-Dichloroethylene	8.56		"	10.0		85.6	68-138		5.90	30	
1,2,3-Trichlorobenzene	9.93		"	10.0		99.3	76-136		4.64	30	
1,2,3-Trichloropropane	10.1		"	10.0		101	77-128		0.999	30	
1,2,4-Trichlorobenzene	9.81		"	10.0		98.1	76-137		1.85	30	
1,2,4-Trimethylbenzene	9.93		"	10.0		99.3	82-132		0.402	30	
1,2-Dibromo-3-chloropropane	10.3		"	10.0		103	45-147		2.46	30	
1,2-Dibromoethane	9.83		"	10.0		98.3	83-124		0.408	30	
1,2-Dichlorobenzene	9.85		"	10.0		98.5	79-123		0.713	30	
1,2-Dichloroethane	9.50		"	10.0		95.0	73-132		0.211	30	
1,2-Dichloropropane	9.73		"	10.0		97.3	78-126		0.615	30	
1,3,5-Trimethylbenzene	9.79		"	10.0		97.9	80-131		0.306	30	
1,3-Dichlorobenzene	9.78		"	10.0		97.8	86-122		0.102	30	
1,3-Dichloropropane	9.65		"	10.0		96.5	81-125		0.311	30	
1,4-Dichlorobenzene	9.71		"	10.0		97.1	85-124		0.206	30	
1,4-Dioxane	520		"	210		248	10-349		3.51	30	
2-Butanone	9.34		"	10.0		93.4	49-152		0.322	30	
2-Hexanone	9.15		"	10.0		91.5	51-146		1.43	30	
4-Methyl-2-pentanone	9.70		"	10.0		97.0	57-145		1.77	30	
Acetone	6.16		"	10.0		61.6	14-150		2.72	30	

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30480 - EPA 5030B											
LCS Dup (BH30480-BSD1)								Prepared & Analyzed: 08/08/2023			
Acrolein	6.63		ug/L	25.0		26.5	10-153		0.909	30	
Acrylonitrile	9.53		"	10.0		95.3	51-150		0.105	30	
Benzene	9.38		"	10.0		93.8	85-126		2.84	30	
Bromochloromethane	9.30		"	10.0		93.0	77-128		1.81	30	
Bromodichloromethane	9.53		"	10.0		95.3	79-128		0.940	30	
Bromoform	10.2		"	10.0		102	78-133		0.492	30	
Bromomethane	8.92		"	10.0		89.2	43-168		2.65	30	
Carbon disulfide	8.26		"	10.0		82.6	68-146		6.33	30	
Carbon tetrachloride	9.62		"	10.0		96.2	77-141		2.16	30	
Chlorobenzene	10.2		"	10.0		102	88-120		1.07	30	
Chloroethane	8.58		"	10.0		85.8	65-136		3.66	30	
Chloroform	9.31		"	10.0		93.1	82-128		1.28	30	
Chloromethane	8.33		"	10.0		83.3	43-155		4.69	30	
cis-1,2-Dichloroethylene	9.20		"	10.0		92.0	83-129		3.31	30	
cis-1,3-Dichloropropylene	9.53		"	10.0		95.3	80-131		0.940	30	
Cyclohexane	9.23		"	10.0		92.3	63-149		3.83	30	
Dibromochloromethane	9.82		"	10.0		98.2	80-130		0.00	30	
Dibromomethane	9.52		"	10.0		95.2	72-134		0.524	30	
Dichlorodifluoromethane	6.83		"	10.0		68.3	44-144		4.16	30	
Ethyl Benzene	9.82		"	10.0		98.2	80-131		1.82	30	
Hexachlorobutadiene	9.96		"	10.0		99.6	67-146		1.10	30	
Isopropylbenzene	10.1		"	10.0		101	76-140		1.68	30	
Methyl acetate	8.51		"	10.0		85.1	51-139		0.235	30	
Methyl tert-butyl ether (MTBE)	9.37		"	10.0		93.7	76-135		0.642	30	
Methylcyclohexane	9.56		"	10.0		95.6	72-143		2.78	30	
Methylene chloride	8.07		"	10.0		80.7	55-137		3.29	30	
Naphthalene	10.3		"	10.0		103	70-147		4.57	30	
n-Butylbenzene	9.11		"	10.0		91.1	79-132		19.4	30	
n-Propylbenzene	10.0		"	10.0		100	78-133		0.993	30	
o-Xylene	9.83		"	10.0		98.3	78-130		1.11	30	
p- & m- Xylenes	20.1		"	20.0		101	77-133		1.87	30	
p-Diethylbenzene	10.2		"	10.0		102	84-134		0.393	30	
p-Ethyltoluene	10.3		"	10.0		103	88-129		1.54	30	
p-Isopropyltoluene	10.1		"	10.0		101	81-136		0.0993	30	
sec-Butylbenzene	10.2		"	10.0		102	79-137		0.0981	30	
Styrene	10.0		"	10.0		100	67-132		0.497	30	
tert-Butyl alcohol (TBA)	48.3		"	50.0		96.5	25-162		0.707	30	
tert-Butylbenzene	10.1		"	10.0		101	77-138		0.791	30	
Tetrachloroethylene	5.15		"	10.0		51.5	82-131	Low Bias	2.87	30	
Toluene	9.63		"	10.0		96.3	80-127		2.56	30	
trans-1,2-Dichloroethylene	8.93		"	10.0		89.3	80-132		4.81	30	
trans-1,3-Dichloropropylene	9.64		"	10.0		96.4	78-131		0.311	30	
Trichloroethylene	8.64		"	10.0		86.4	82-128		3.86	30	
Trichlorofluoromethane	9.21		"	10.0		92.1	67-139		4.04	30	
Vinyl Chloride	8.44		"	10.0		84.4	58-145		5.31	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.86*		*"*	*10.0*		*98.6*	*69-130*				
Surrogate: SURR: Toluene-d8	*10.0*		*"*	*10.0*		*100*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.99*		*"*	*10.0*		*99.9*	*79-122*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30574 - EPA 5030B											
Blank (BH30574-BLK1)									Prepared & Analyzed: 08/09/2023		
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,2,3-Trichlorobenzene	ND	0.500	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
1,4-Dioxane	ND	80.0	"								
2-Butanone	ND	0.500	"								
2-Hexanone	ND	0.500	"								
4-Methyl-2-pentanone	ND	0.500	"								
Acetone	ND	2.00	"								
Acrolein	ND	0.500	"								
Acrylonitrile	ND	0.500	"								
Benzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon disulfide	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Cyclohexane	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl acetate	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylcyclohexane	ND	0.500	"								

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30574 - EPA 5030B											
Blank (BH30574-BLK1)									Prepared & Analyzed: 08/09/2023		
Methylene chloride	ND	2.00	ug/L								
Naphthalene	ND	2.00	"								
n-Butylbenzene	ND	0.500	"								
n-Propylbenzene	ND	0.500	"								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Diethylbenzene	ND	0.500	"								
p-Ethyltoluene	ND	0.500	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butyl alcohol (TBA)	ND	1.00	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.0*		*"*	*10.0*		*100*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.98*		*"*	*10.0*		*99.8*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.1*		*"*	*10.0*		*101*	*79-122*				
LCS (BH30574-BS1)									Prepared & Analyzed: 08/09/2023		
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.0		101	82-126				
1,1,1-Trichloroethane	10.5		"	10.0		105	78-136				
1,1,2,2-Tetrachloroethane	11.4		"	10.0		114	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.9		"	10.0		109	54-165				
1,1,2-Trichloroethane	10.0		"	10.0		100	82-123				
1,1-Dichloroethane	9.68		"	10.0		96.8	82-129				
1,1-Dichloroethylene	10.1		"	10.0		101	68-138				
1,2,3-Trichlorobenzene	9.76		"	10.0		97.6	76-136				
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128				
1,2,4-Trichlorobenzene	9.85		"	10.0		98.5	76-137				
1,2,4-Trimethylbenzene	10.1		"	10.0		101	82-132				
1,2-Dibromo-3-chloropropane	10.1		"	10.0		101	45-147				
1,2-Dibromoethane	10.3		"	10.0		103	83-124				
1,2-Dichlorobenzene	10.1		"	10.0		101	79-123				
1,2-Dichloroethane	10.1		"	10.0		101	73-132				
1,2-Dichloropropane	10.2		"	10.0		102	78-126				
1,3,5-Trimethylbenzene	9.99		"	10.0		99.9	80-131				
1,3-Dichlorobenzene	9.99		"	10.0		99.9	86-122				
1,3-Dichloropropane	10.1		"	10.0		101	81-125				
1,4-Dichlorobenzene	9.92		"	10.0		99.2	85-124				
1,4-Dioxane	522		"	210		248	10-349				
2-Butanone	9.92		"	10.0		99.2	49-152				
2-Hexanone	9.10		"	10.0		91.0	51-146				
4-Methyl-2-pentanone	9.83		"	10.0		98.3	57-145				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30574 - EPA 5030B											
LCS (BH30574-BS1)								Prepared & Analyzed: 08/09/2023			
Acetone	6.44		ug/L	10.0		64.4	14-150				
Acrolein	5.46		"	25.0		21.8	10-153				
Acrylonitrile	9.83		"	10.0		98.3	51-150				
Benzene	10.3		"	10.0		103	85-126				
Bromochloromethane	9.99		"	10.0		99.9	77-128				
Bromodichloromethane	10.0		"	10.0		100	79-128				
Bromoform	10.1		"	10.0		101	78-133				
Bromomethane	7.24		"	10.0		72.4	43-168				
Carbon disulfide	10.0		"	10.0		100	68-146				
Carbon tetrachloride	10.6		"	10.0		106	77-141				
Chlorobenzene	10.8		"	10.0		108	88-120				
Chloroethane	9.94		"	10.0		99.4	65-136				
Chloroform	10.1		"	10.0		101	82-128				
Chloromethane	9.75		"	10.0		97.5	43-155				
cis-1,2-Dichloroethylene	10.1		"	10.0		101	83-129				
cis-1,3-Dichloropropylene	9.94		"	10.0		99.4	80-131				
Cyclohexane	10.5		"	10.0		105	63-149				
Dibromochloromethane	10.2		"	10.0		102	80-130				
Dibromomethane	10.1		"	10.0		101	72-134				
Dichlorodifluoromethane	10.5		"	10.0		105	44-144				
Ethyl Benzene	10.4		"	10.0		104	80-131				
Hexachlorobutadiene	9.91		"	10.0		99.1	67-146				
Isopropylbenzene	10.4		"	10.0		104	76-140				
Methyl acetate	8.96		"	10.0		89.6	51-139				
Methyl tert-butyl ether (MTBE)	9.85		"	10.0		98.5	76-135				
Methylcyclohexane	10.4		"	10.0		104	72-143				
Methylene chloride	8.74		"	10.0		87.4	55-137				
Naphthalene	10.1		"	10.0		101	70-147				
n-Butylbenzene	9.33		"	10.0		93.3	79-132				
n-Propylbenzene	10.3		"	10.0		103	78-133				
o-Xylene	10.3		"	10.0		103	78-130				
p- & m- Xylenes	21.2		"	20.0		106	77-133				
p-Diethylbenzene	10.2		"	10.0		102	84-134				
p-Ethyltoluene	10.5		"	10.0		105	88-129				
p-Isopropyltoluene	10.1		"	10.0		101	81-136				
sec-Butylbenzene	10.3		"	10.0		103	79-137				
Styrene	10.5		"	10.0		105	67-132				
tert-Butyl alcohol (TBA)	49.3		"	50.0		98.6	25-162				
tert-Butylbenzene	10.2		"	10.0		102	77-138				
Tetrachloroethylene	5.59		"	10.0		55.9	82-131	Low Bias			
Toluene	10.3		"	10.0		103	80-127				
trans-1,2-Dichloroethylene	10.1		"	10.0		101	80-132				
trans-1,3-Dichloropropylene	9.93		"	10.0		99.3	78-131				
Trichloroethylene	9.50		"	10.0		95.0	82-128				
Trichlorofluoromethane	10.7		"	10.0		107	67-139				
Vinyl Chloride	10.1		"	10.0		101	58-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.92*		*"*	*10.0*		*99.2*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.99*		*"*	*10.0*		*99.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.98*		*"*	*10.0*		*99.8*	*79-122*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30574 - EPA 5030B											
LCS Dup (BH30574-BSD1)								Prepared & Analyzed: 08/09/2023			
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.0		101	82-126		0.0987	30	
1,1,1-Trichloroethane	10.1		"	10.0		101	78-136		3.49	30	
1,1,2,2-Tetrachloroethane	11.9		"	10.0		119	76-129		3.86	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6		"	10.0		106	54-165		2.04	30	
1,1,2-Trichloroethane	10.3		"	10.0		103	82-123		2.27	30	
1,1-Dichloroethane	9.50		"	10.0		95.0	82-129		1.88	30	
1,1-Dichloroethylene	9.72		"	10.0		97.2	68-138		4.03	30	
1,2,3-Trichlorobenzene	10.3		"	10.0		103	76-136		5.48	30	
1,2,3-Trichloropropane	10.8		"	10.0		108	77-128		4.82	30	
1,2,4-Trichlorobenzene	10.1		"	10.0		101	76-137		2.61	30	
1,2,4-Trimethylbenzene	10.0		"	10.0		100	82-132		0.993	30	
1,2-Dibromo-3-chloropropane	10.8		"	10.0		108	45-147		7.00	30	
1,2-Dibromoethane	10.6		"	10.0		106	83-124		3.15	30	
1,2-Dichlorobenzene	10.1		"	10.0		101	79-123		0.397	30	
1,2-Dichloroethane	10.3		"	10.0		103	73-132		2.26	30	
1,2-Dichloropropane	10.2		"	10.0		102	78-126		0.00	30	
1,3,5-Trimethylbenzene	9.84		"	10.0		98.4	80-131		1.51	30	
1,3-Dichlorobenzene	9.96		"	10.0		99.6	86-122		0.301	30	
1,3-Dichloropropane	10.4		"	10.0		104	81-125		2.24	30	
1,4-Dichlorobenzene	9.90		"	10.0		99.0	85-124		0.202	30	
1,4-Dioxane	549		"	210		261	10-349		5.05	30	
2-Butanone	10.1		"	10.0		101	49-152		1.70	30	
2-Hexanone	9.68		"	10.0		96.8	51-146		6.18	30	
4-Methyl-2-pentanone	10.4		"	10.0		104	57-145		5.44	30	
Acetone	6.79		"	10.0		67.9	14-150		5.29	30	
Acrolein	5.83		"	25.0		23.3	10-153		6.55	30	
Acrylonitrile	10.4		"	10.0		104	51-150		5.64	30	
Benzene	10.1		"	10.0		101	85-126		2.06	30	
Bromochloromethane	10.0		"	10.0		100	77-128		0.300	30	
Bromodichloromethane	9.99		"	10.0		99.9	79-128		0.499	30	
Bromoform	10.6		"	10.0		106	78-133		4.63	30	
Bromomethane	7.78		"	10.0		77.8	43-168		7.19	30	
Carbon disulfide	9.51		"	10.0		95.1	68-146		5.22	30	
Carbon tetrachloride	10.1		"	10.0		101	77-141		5.11	30	
Chlorobenzene	10.6		"	10.0		106	88-120		1.78	30	
Chloroethane	9.45		"	10.0		94.5	65-136		5.05	30	
Chloroform	9.96		"	10.0		99.6	82-128		1.20	30	
Chloromethane	9.36		"	10.0		93.6	43-155		4.08	30	
cis-1,2-Dichloroethylene	9.89		"	10.0		98.9	83-129		2.00	30	
cis-1,3-Dichloropropylene	10.0		"	10.0		100	80-131		0.901	30	
Cyclohexane	9.98		"	10.0		99.8	63-149		4.89	30	
Dibromochloromethane	10.3		"	10.0		103	80-130		1.56	30	
Dibromomethane	10.3		"	10.0		103	72-134		2.06	30	
Dichlorodifluoromethane	9.98		"	10.0		99.8	44-144		5.36	30	
Ethyl Benzene	10.1		"	10.0		101	80-131		2.64	30	
Hexachlorobutadiene	9.72		"	10.0		97.2	67-146		1.94	30	
Isopropylbenzene	10.2		"	10.0		102	76-140		2.62	30	
Methyl acetate	9.50		"	10.0		95.0	51-139		5.85	30	
Methyl tert-butyl ether (MTBE)	10.2		"	10.0		102	76-135		3.78	30	
Methylcyclohexane	9.95		"	10.0		99.5	72-143		4.71	30	

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BH30574 - EPA 5030B											
LCS Dup (BH30574-BSD1)								Prepared & Analyzed: 08/09/2023			
Methylene chloride	8.70		ug/L	10.0		87.0	55-137		0.459	30	
Naphthalene	10.9		"	10.0		109	70-147		7.63	30	
n-Butylbenzene	11.1		"	10.0		111	79-132		17.2	30	
n-Propylbenzene	10.1		"	10.0		101	78-133		2.15	30	
o-Xylene	10.1		"	10.0		101	78-130		1.67	30	
p- & m- Xylenes	20.7		"	20.0		103	77-133		2.63	30	
p-Diethylbenzene	10.1		"	10.0		101	84-134		1.09	30	
p-Ethyltoluene	10.4		"	10.0		104	88-129		1.72	30	
p-Isopropyltoluene	10.0		"	10.0		100	81-136		1.29	30	
sec-Butylbenzene	10.1		"	10.0		101	79-137		1.37	30	
Styrene	10.4		"	10.0		104	67-132		0.671	30	
tert-Butyl alcohol (TBA)	52.6		"	50.0		105	25-162		6.42	30	
tert-Butylbenzene	10.1		"	10.0		101	77-138		1.48	30	
Tetrachloroethylene	5.37		"	10.0		53.7	82-131	Low Bias	4.01	30	
Toluene	10.0		"	10.0		100	80-127		2.95	30	
trans-1,2-Dichloroethylene	9.67		"	10.0		96.7	80-132		4.15	30	
trans-1,3-Dichloropropylene	10.2		"	10.0		102	78-131		2.29	30	
Trichloroethylene	9.13		"	10.0		91.3	82-128		3.97	30	
Trichlorofluoromethane	10.2		"	10.0		102	67-139		4.51	30	
Vinyl Chloride	9.63		"	10.0		96.3	58-145		5.16	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.1*		*"*	*10.0*		*101*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.91*		*"*	*10.0*		*99.1*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.92*		*"*	*10.0*		*99.2*	*79-122*				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23H0110-01	19MW2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-02	19MW3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-03	19MW5	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-04	19MW16	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-05	19MW7	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-06	19MW17D	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-07	19MW17S	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-08	19MW30	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-09	21MW3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
23H0110-10	Field Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
ICVE	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
CCVE	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Field Chain-of-Custody Record

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc. (YORK)'s Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 23H0110

120 Research Drive Stratford, CT 06615 - 132-02 89th Ave Queens, NY 11418 - 56 Church Hill Rd. #2 Newtown, CT 06470 clientservices@yorklab.com www.yorklab.com 800-306-YORK Page _____ of _____

YOUR Information	Report To:	Invoice To:
Company: Touchstone	Company: Touchstone	Company: Touchstone
Address:	Address:	Address:
Phone.:	Phone.:	Phone.:
Contact:	Contact:	Contact:
E-mail:	E-mail:	E-mail:

YOUR Project Number

YOUR Project Name 334 Wallabout St. Brooklyn, NY

YOUR PO#:

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) ✓
- (7-10 for PFAS)

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Firat Atamer

Samples Collected by: (print AND sign your name)

Matrix Codes

- S - soil / solid
- GW - groundwater
- DW - drinking water
- WW - wastewater
- O - Oil | Other

Samples From

- New York ✓
- New Jersey
- Connecticut
- Pennsylvania
- Other:

Report / EDD Type (circle selections)

Summary Report | CT RCP | EQuIS (Standard)
QA Report | CT RCP DQA/DUE | NYSDEC EQuIS
Standard Excel EDD | NJDEP Reduced Deliverables | NJDKQP
NY ASP B Package | NJDEP SRP HazSite
Other: _____

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analyses Requested	Container Type	No.
19MW2	GW	8/1/23 8:35	TL VOCs EPA 8260	2 vials	
19MW3		7:55			
19MW5		13:00			
19MW16		11:30			
19MW7		12:30			
19MW17D		9:45			
19MW17S		9:15			
19MW30		13:35			
21MW3		14:10			

Comments:

Samples iced/chilled at time of lab pickup? circle Yes or No

Preservation: (check all that apply)

HCl ____ MeOH ____ HNO3 ____ H2SO4 ____ NaOH ____
ZnAc ____ Ascorbic Acid ____ Other: _____

Special Instruction

- Field Filtered
- Lab to Filter

1. Samples Relinquished by / Company	Date/Time	1. Samples Received by / Company	Date/Time	2. Samples Relinquished by / Company	Date/Time
	8/2/23 12Pm	KBarkyork	8/2/23 12Pm	KBarkyork 8/2/23	1710
2. Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	3. Samples Received by / Company	Date/Time
4. Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temperature
				Victor D. York	8/2/23 1710 5.0 Degrees C

Appendix B

Sulfate Bio Chem Information

REDOX TECH, LLC

"Providing Innovative In Situ Soil and Groundwater Treatment"

Sulfate BioChem (SBC)

Recent applications of in situ chemical oxidation (ISCO) have shown that ISCO can be a cost-effective remedial strategy for organic contaminants in groundwater and soil. The application of ISCO to contaminated source areas usually results in an immediate benefit to groundwater in the area. Redox Tech originally formulated a mixture of sodium persulfate and calcium peroxide called Oxygen BioChem (OBC) that is an effective amendment for ISCO applications. Some situations are not appropriate for chemical oxidation because strongly reducing conditions can translate to prohibitive oxidant demand and corresponding cost. As an alternative to direct chemical oxidation we have developed **Sulfate BioChem (SBC),** which works with naturally reducing conditions to promote anaerobic biological oxidation of organic compounds.

The mixture in SBC supports anaerobic oxidation conditions and delivers oxygen (soluble sulfates) for long-term biological oxidation under anaerobic conditions. SBC contains several soluble sulfur salts each with a different purpose. Magnesium sulfate (epsom salts) provides the main source of sulfate electron acceptors as well as magnesium, which is essential for cell growth and function. Other sulfur compounds in the mixture help to achieve and maintain the proper redox conditions for anaerobic oxidation of petroleum compounds by sulfate reduction. During anaerobic oxidation, the petroleum utilize the oxygen on the sulfate to convert to harmless carbon dioxide and water.

The long-term remediation process is biological oxidation. Based on Weidemeier et al. (1999), more than 70% of the natural attenuation of fuels results from sulfate reduction. In addition, there are many descriptions in the literature of the addition of soluble sulfate to successfully remediate petroleum contaminated sites (e.g., Reinhard et al., 1997; Anderson and Lovely, 2000; Somsamak et al., 2001; Sublette et al., 2006). The site described by Reinhard et al., 1997 is in a similar geologic setting near sensitive coastal use areas. We have used sulfate reduction to remediate sites to closure.

SBC has advantages over other formulations used for bioremediation in that it provides soluble sulfates and compounds that help **develop and promote** the necessary redox conditions to sustain oxidation by sulfate reduction. SBC is ideally suited for the treatment of **BTEX**, and **MTBE**, as well as **naphthalene** and other **PAH**s. SBC is highly soluble and safe to handle so it is very easy to inject.

References

1. Weidemeier et al., 1999, Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface, John Wiley and Sons, New York.
2. Anderson and Lovely, 2000, Environ. Sci. Technol., 34, 2261-2266.
3. Reinhard et al., 1997, Environ. Sci. Technol., 31, 28-36.
4. Somsamak et al., 2001, FEMS Microbiology Ecology, 37, 259-264.
5. Sublette et al., 2006, Ground Water Monitoring and Remediation, 26 (2), 70-78.

200 QUADE DRIVE, CARY, NC 27513 TEL 919.678.0140 FAX 919.678.0150
WWW.REDOX-TECH.COM E-MAIL: ROSSABI@REDOX-TECH.COM

Enhanced Bioremediation Using Sulfate and/or Nitrate

Ravi Kolhatkar and Davis Taggart

Environmental Technology

Remediation Management Technology Meeting

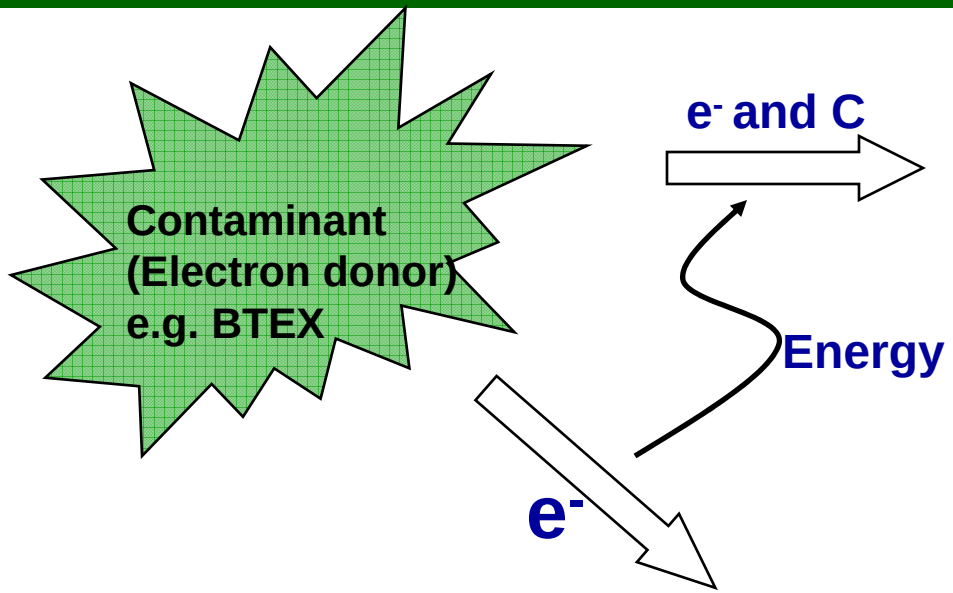
Warrenville

January 22, 2004

Overview

- Why add sulfate (and/or nitrate)?
- **What kinds of contaminants can be addressed?**
- Why bother if anaerobic rates are slower than aerobic rates?
- What about Hydrogen Sulfide?
- Application Guidance

Hydrocarbon Biodegradation



	Electron Acceptors		**Products**
High	**1. Oxygen**	**>>>**	**Water, CO_2**
	2. Nitrate	**>>>**	**Nitrogen, CO_2**
	3. Fe(III)	**>>>**	**Fe(II), CO_2**
	4. Mn(IV)	**>>>**	**Mn(II), CO_2**
	5. Sulfate	**>>>**	**Sulfide, CO_2**
Low	**6. None (fermentation)**	**>>>**	**Methane, CO_2**

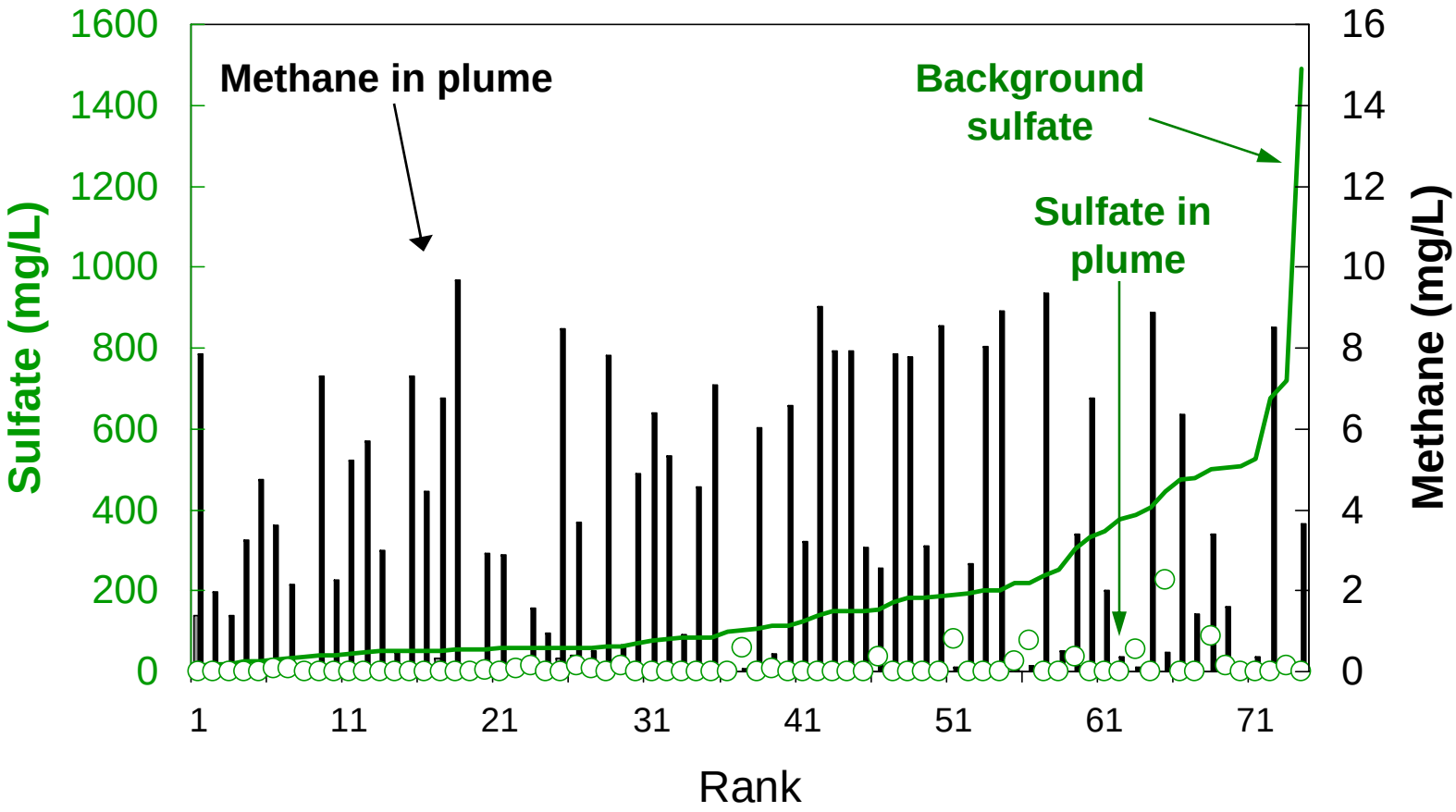
Energy Yield

Fast

Kinetics in lab experiments

Slow

Sulfate in Ground Water at Retail Sites(BP-EPA Study)

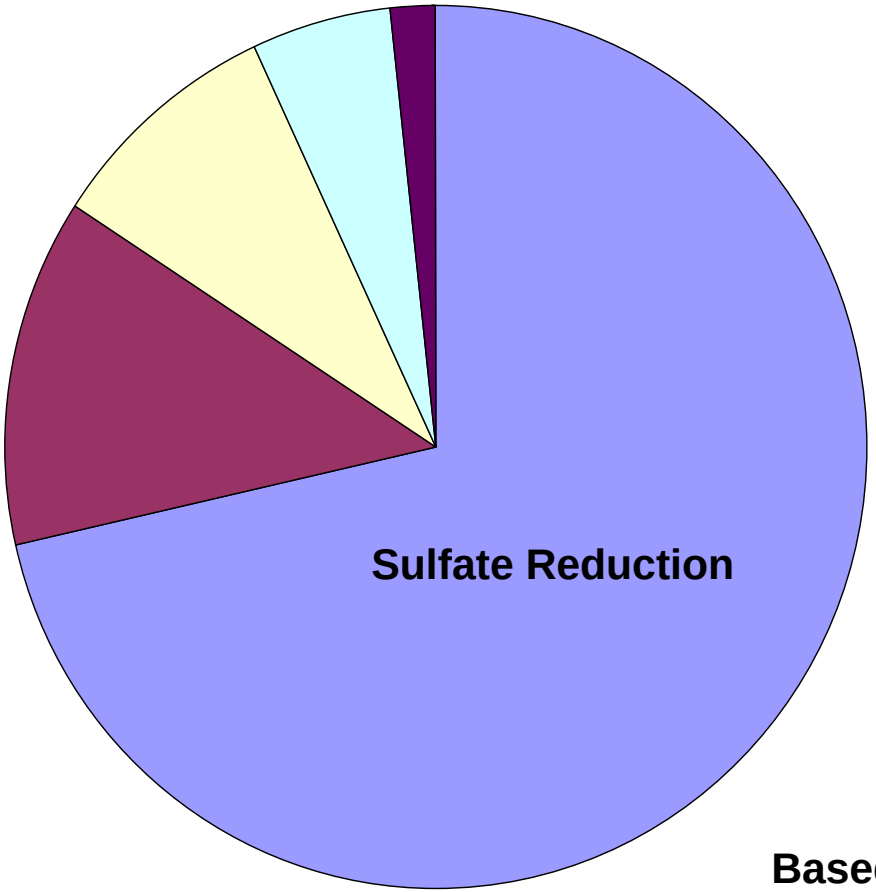


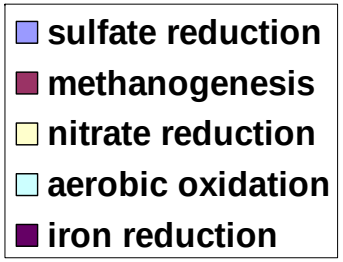
Sulfate is absent in most of the plumes

Why Sulfate?

Electron Acceptor (EA)	Maximum Concentration (mg/L)	Mass of benzene degraded per unit mass of EA	Potential Benzene Degraded (mg/L)	Issues
Oxygen (in air)	9 - 10	0.33	3.0 – 3.3	•Limited solubility •Numerous oxygen sinks •Potential aquifer clogging •Biofouling near injection point
Pure Oxygen	60 - 70	0.33	19.8 – 23.1	
Sulfate	100 – 250*	0.22	22.0 – 55.0	•Hydrogen sulfide; never documented as an issue in the field •Secondary MCL for sulfate – 250 mg/L*
Nitrate	80 - 100	0.21	16.8 – 21.0	•DW concern •Primary MCL – 10 mg/L NO_3-N (45 mg/L NO_3)
Iron (III)	0 - 1	0.024	0 – 0.024	•Very low solubility •Aquifer clogging

Sulfate Does the Heavy Lifting!





Gasoline Release Sites

Based on median consumptions of electron acceptors at 74 sites

BP-EPA study

Field Data - Conclusions

- Most hydrocarbon plumes are anaerobic and depleted of sulfate
- Sulfate reduction is important in ground water

⇒ **Adding sulfate to ground water will likely stimulate BTEX degradation**

- **No solubility constraints (unlike oxygen)**
- **No chemical sinks (unlike oxygen)**
- **Can address "non-target" electron acceptor demand enabling contaminants of concern (e.g. benzene) to "see" oxygen**

Is Anaerobic Biodegradation Slower?

- **Laboratory Experiments**
  - Electron acceptor supply (DO, nitrate,..) >> Electron Donor (BTEX) demand
  - Rate dictated by biodegradation

    A > NR > IR > SR > M (rates follow same order)

- **Natural Field Setting**
  - Electron donor demand (BTEX) >> Electron acceptor supply (DO, nitrate,..)
  - Rate dictated by transport of electron acceptors

    A ~ NR ~ IR ~ SR (rates are similar)

    M (rate dictated by biodegradation)

No, rates are comparable in the field

Data from Push-pull Tests

Environment	Method	First order rate constant (day^{-1})	Reference
Sulfate Reduction			
Petroleum Impacted Aquifer (PIA)	Flow path	0.02 to 0.08	Chappelle, 1996
PIA	Augmented flow path	0.1	Cunningham et al. 2000
Petroleum and CHC impacted aquifer	Push-pull tests	4.32 to 6.48	McGuire et al., 2002
Nitrate Reduction			
PIA	Push-pull tests	5.28	Schroth et al., 1998
PIA	Augmented flow path	0.1 to 0.6	Cunningham et al. 2000
Petroleum and CHC impacted aquifer	Push-pull tests	5.04 to 7.44	McGuire et al., 2002

McGuire et al., Enviro. Sci. Technol., 36, 2693-2700, 2002

Normal Alkanes

Table 2 Evidence for anaerobic alkane biodegradation

Electron acceptor	Type of culture	Alkanes degraded	Reference
Denitrification	Pure, strain OcN1	C8	Ehrenreich *et al.*, 2000
	Pure, strain HdN1	C16	
Denitrification	Pure, strain HxN1	C6	Rabus *et al.*, 2001
Denitrification	Enrichment	Pristane (2,6,10,14-tertramethylpentadecane)	Bregnard *et al.*, 1997
Sulfate reducing	Pure, strain Hxd3	C12–C20	Aeckersberg *et al.*, 1991
Sulfate reducing	Pure, strain Pnd3	C14–C17	Aeckersberg *et al.*, 1998
Sulfate reducing	Pure, strain AK-01	C13–C18	So and Young, 1999a and b
Sulfate reducing	Enrichment	C12	Kropp *et al.*, 2000
Sulfate reducing	Enrichment	C15–C34	Caldwell *et al.*, 1998
Methanogenic	Enrichment	C16	Anderson and Lovley 2000
Methanogenic	Enrichment	C16	Zengler *et al.*, 1999

McGuire et al., Enviro. Sci. Technol., 36, 2693-2700, 2002????

Normal Alkanes

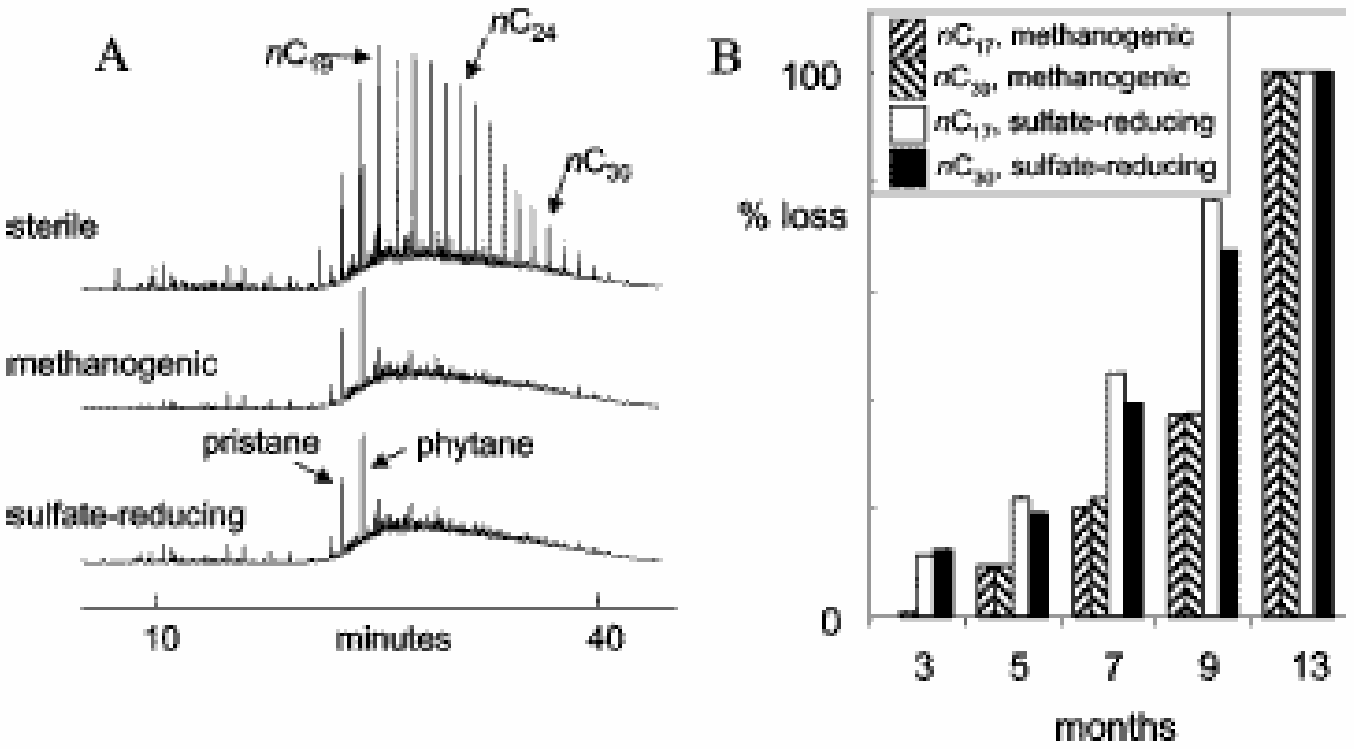


FIGURE 3. *n*-Alkane biodegradation in artificially weathered Alaska North Slope crude oil. (A) Chromatograms of residual oil after 13 months of incubation. (B) Time course of biodegradation of two *n*-alkanes. The incubations initially contained 3.62 mg of heptadecane and 1.13 mg of triacontane.

Townsend et al., Enviro. Sci. Technol., 37, 5213-5218, 2003

PAH

Table 1 Evidence for anaerobic polycyclic aromatic hydrocarbon (PAH) degradation

Electron acceptor	Culture*	PAH compounds degraded	Reference
Denitrification++	PC	anthracene, phenanthrene, pyrene	McNally *et al.*, 1998
Denitrification+	PC	naphthalene	Rockne *et al.*, 2000
Denitrification	EC	acenaphthalene, naphthalene	Mihelcic and Luthy 1988
Denitrification	EC	naphthalene, phenanthrene	Rockne and Strand 2001 and 1998
Sulfate reducing	PC	naphthalene	Galushko *et al.*, 1999
Sulfate reducing	EC	naphthalene	Bedessem *et al.*, 1997
Sulfate reducing	EC	naphthalene, phenanthrene, fluorene, fluoranthene	Coates *et al.*, 1997
Sulfate reducing	EC	naphthalene, phenanthrene	Zhang and Young 1997
Sulfate reducing	EC	naphthalene, phenanthrene	Rockne and Strand 1998
Sulfate reducing	EC	naphthalene, phenanthrene	Hayes *et al.*, 1999
Sulfate reducing	EC	2-methylnaphthalene	Annweiler *et al.*, 2000
Sulfate reducing	EC	naphthalene	Meckenstock *et al.*, 2001
Manganese reducing	EC	naphtalene	Langenhoff *et al.*, 1996

*culture EC = enrichment culture; PC = pure culture; +nitrate reduced to nitrite; ++nitrate reduced to nitrous oxide

PAH

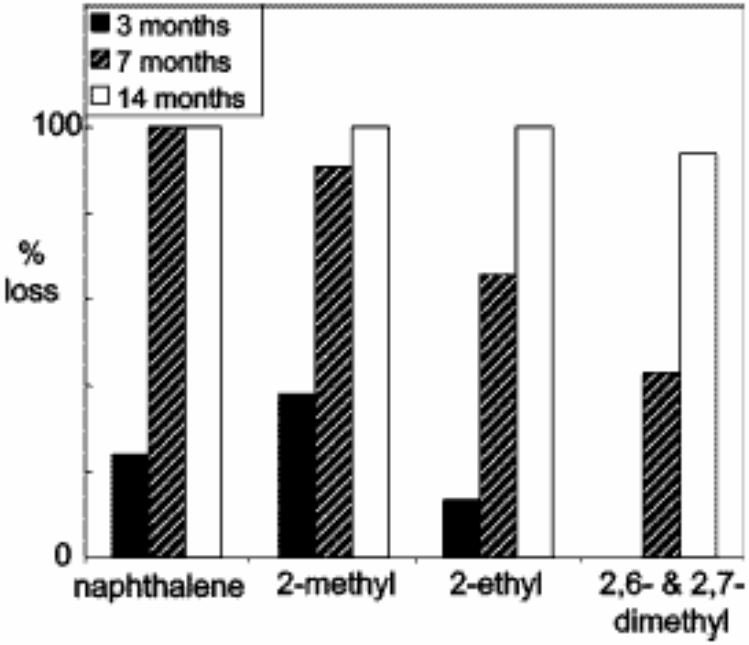


FIGURE 6. Time course of naphthalene homologue biodegradation in Alba crude oil.

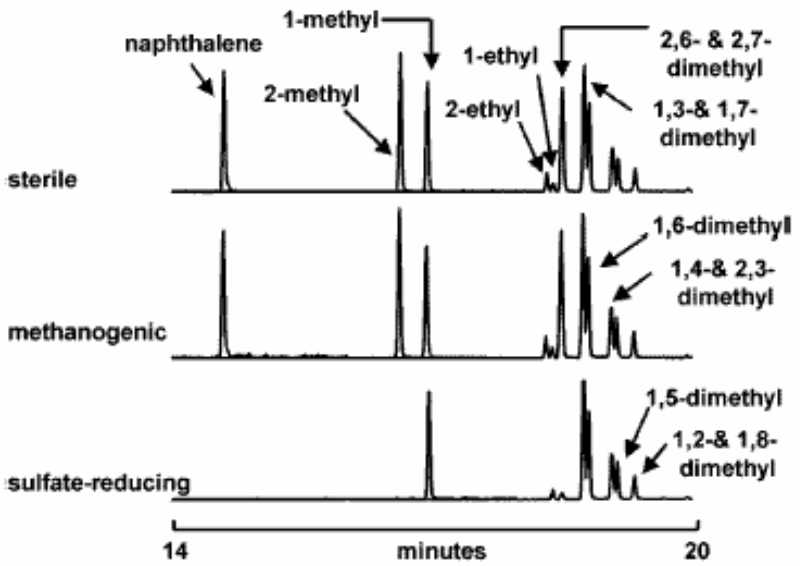
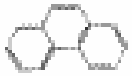


FIGURE 5. Selective biodegradation of naphthalene, 2-methylnaphthalene, 2-ethylnaphthalene, and the coeluting 2,6- and 2,7-dimethylnaphthalenes in Alba crude oil-amended incubations held under sulfate reducing conditions after 14 months. The *m/z* 128, 142, and 156 chromatograms are overlain.

Townsend et al., Enviro. Sci. Technol., 37, 5213-5218, 2003

PAH in Sediments

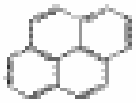
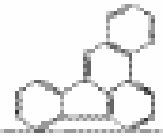
TABLE 1. Incremental Decline (over 11 Months) of in Situ PAHs in Microcosms of Anoxic, Coal Tar-Contaminated Boston Harbor Sediment Maintained with Adequate Sulfate To Support Respiration in Sulfate-Reducing Bacteria

		Initial PAH level (μmol/Kg dry sediment)	PAH levels and % decline over ca. 1 yr (μmol PAH / Kg dry sediment)		
			after 105 days	after 220 days	after 338 days
Naphthalene		436 ± 29	398 ± 24 8%	399 ± 16 8%	342 ± 2 22%
1-methyl-naphthalene		54 ± 11	30 ± 6 45%	26 ± 1 52%	22 ± 1 60%
2-methyl-naphthalene		99 ± 10	77 ± 6 22%	73 ± 2 26%	61 ± 3 38%
Acenaphthene		132 ± 14	35 ± 2 74%	19 ± 2 86%	15 ± 1 89%
Fluorene		112 ± 19	51 ± 5 54%	43 ± 1 61%	36 ± 0 67%
Phenanthrene		231 ± 30	131 ± 13 43%	110 ± 4 53%	97 ± 3 58%
Anthracene		293 ± 55	269 ± 16 8%	153 ± 9 48%	97 ± 6 67%

Rothermich et al., Enviro. Sci. Technol., 36, 4811-4817, 2002

PAH in Sediments

More complex PAH relatively difficult to degrade

Fluoranthene		970 ± 70	986 ± 69 0%	900 ± 36 7%	850 ± 47 12%
Pyrene		1,015 ± 112	1,097 ±70 0%	964 ± 29 5%	885 ± 20 13%
Benz[a]-anthracene		301 ± 63	325 ± 23 0%	293 ± 12 2%	273 ± 9 9%
Chrysene		385 ± 41	389 ± 27 0%	329 ± 11 15%	288 ± 1 25%
Benzo[b]-fluoranthene		258 ± 19	260 ± 19 0%	231 ± 10 11%	218 ± 9 16%
Benzo[k]-fluoranthene		203 ± 17	206 ± 10 0%	191 ± 19 5%	177 ± 6 13%
Benzo[a]pyrene		330 ± 27	302 ± 22 8%	258 ± 10 22%	250 ± 6 24%

Rothermich et al., Enviro. Sci. Technol., 36, 4811-4817, 2002

PAH in Sediments

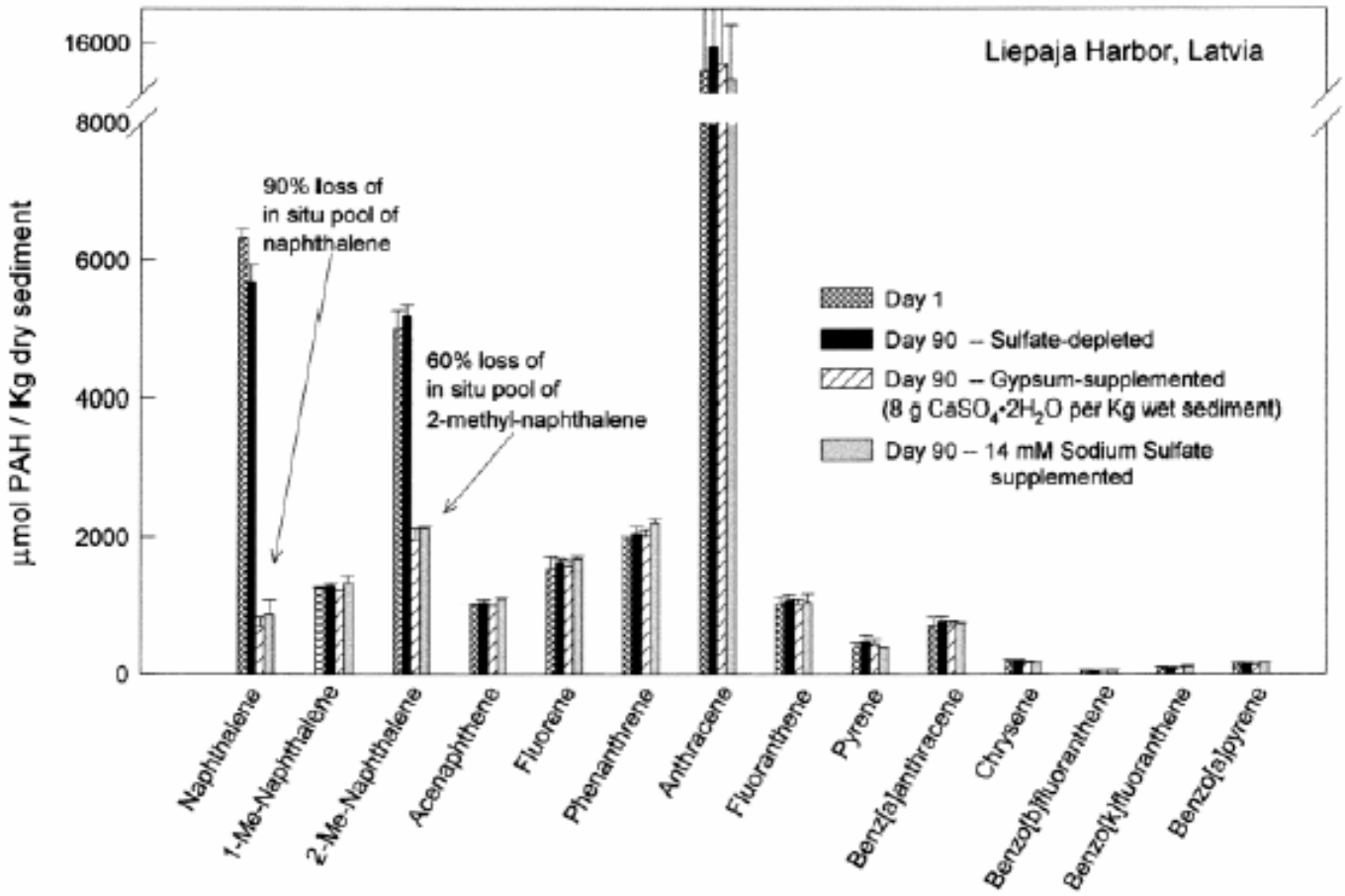


FIGURE 3. In situ contaminant PAHs in sediment approximately 3 weeks after collection from Liepaja Harbor, Latvia and after 90 days of incubation under in situ-like conditions. The sediment was sulfate-depleted upon arrival in the laboratory. Gypsum-supplemented and sodium sulfate-supplemented samples were amended after sediment was placed in incubation bottles. The results are the means of duplicate sample bottles. Each bottle value was determined from triplicate extractions.

Rothermich et al., Enviro. Sci. Technol., 36, 4811-4817, 2002

Anaerobic Benzene Biodegradation

Table 2. Summary of anaerobic benzene degradation that was published with different TEAP.

TEAP conditions	Percentage degraded	Concentration (mM)	Originated from	Lag phase (d)	Reference
CH_4/CO_2	6 [1] (50 [2])	1.5 - 30	Ferulic acid degrading sludge	16	(10)
CH_4/CO_2	82 [1]	0.05	aquifer sediment, MI	420	(12)
CH_4/CO_2	73 [2]	0.675	aquifer sediment, MI	360	(12)
CH_4/CO_2	53 [1]	???	aquifer Ponca City, OK	0	(28)
SO_4^{2-}/H_2S	90 [1]	0.20	Seal Beach, CA	70-100	(9)
SO_4^{2-}/H_2S	92 [1]	1.7	San Diego Bay, CA	55	(14)
SO_4^{2-}/H_2S	92 [3]	0.125	Guaymas Basin, Mexico	84	(18)
SO_4^{2-}/H_2S	78 [1]	0.050	aquifer sediment, MI	400	(12)
SO_4^{2-}/H_2S	76 [1]	0.057	Seal Beach, CA	120	(12)
SO_4^{2-}/H_2S	85 [2]	0.125	NY/NJ Harbor sediment	60	(12)
SO_4^{2-}/H_2S	101 [2]	0.100	Sleeping Bear Dunes National Lakeshore, Empire, MI	100	(20)
NO_3^-/N_2	95 [4]	0.038	Canada Force Base Borden, Ontario	-	(17)
NO_3^-/NO_2^-	92-95 [1]	0.150	Toronto, Ontario	30	(3)
NO_3^-/NO_2^-	92-95 [1]	0.150	Fresh water swamp, Perth, Ontario	30	(3)
NO_3^-/N_2	47 [1]	0.163	Strain JJ and RCB	0	(7)
Fe^{3+}/Fe^{2+}	86 [1] 97 [2]	0.608	Sediment Defense Fuel Center, Hanahan, SC	87-122	(16)
Fe^{3+}/Fe^{2+}	95 [5]	0.010	Sediment Defense Fuel Center, Hanahan, SC	25	(15)
Fe^{3+}/Fe^{2+}	46 [4]	0.125	NY/NJ Harbor sediment	100	(12)
Fe^{3+}/Fe^{2+}	100 [4]	0.003	Potomac River, Maryland	50	(12)
Fe^{3+}/Fe^{2+}	50 [1]	???	USGS Groundwater Toxic site, Bemidij, MN	0	(1)
Fe^{3+}/Fe^{2+}	90 [1]	0.050	aquifer Ponca City, OK	???	(5)

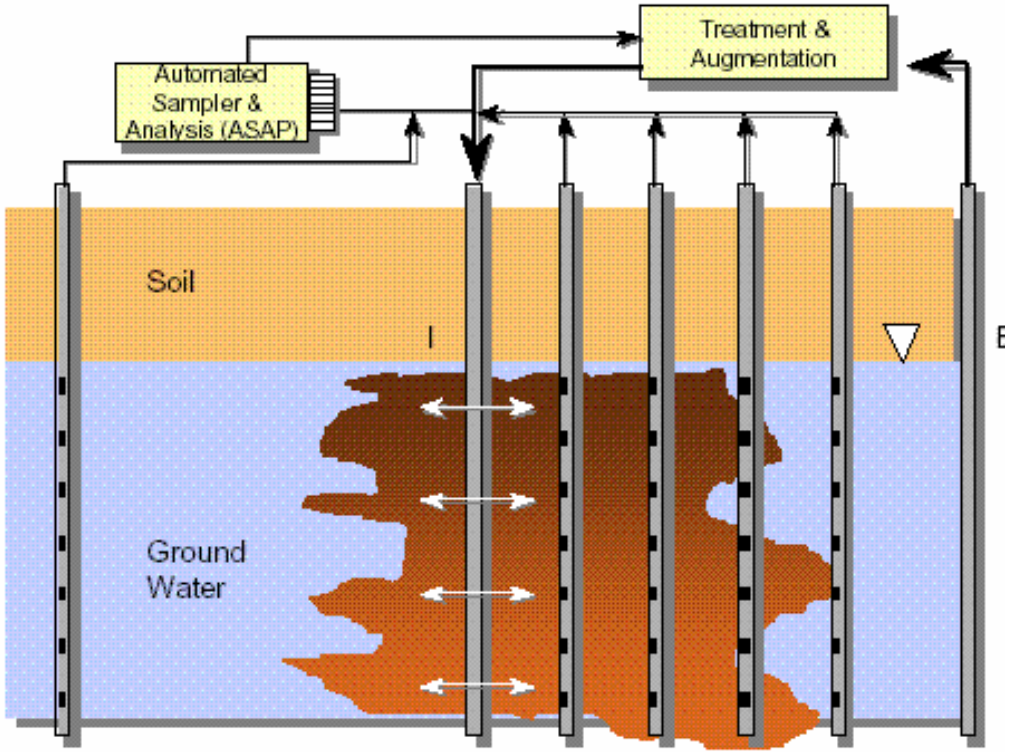
Naval Weapons Station, Seal Beach, CA

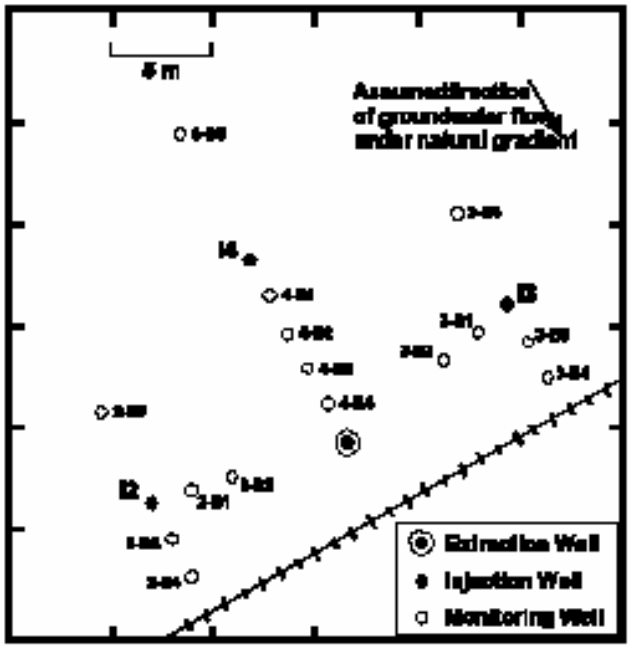
- Pilot study – Stanford University and NFESC
- "Injection-extraction" cells to create 3 remediation zones
  - With sulfate
  - With sulfate and nitrate
  - No amendment (naturally methanogenic)
- Sulfate and nitrate were quickly consumed ➔ supply of electron acceptors was limiting under natural conditions
  - Nitrate (0.1 to 0.6 d^{-1}) and sulfate (0.1 d^{-1}) were consumed at similar rates
  - Nitrate effective at oxidizing sulfide back to sulfate
- BTEX removal:
  - Toluene preferentially degraded naturally over B, EB and X
  - Sulfate preferentially stimulated removal of o-X, but not B, EB and m+p-X
  - Nitrate stimulated removal of EB and m+p-X
  - Benzene biodegradation was the slowest in all conditions, if at all

ESTCP Cost & Performance Report, December 1999
http://www.estcp.org/documents/techdocs/199522.pdf

Application

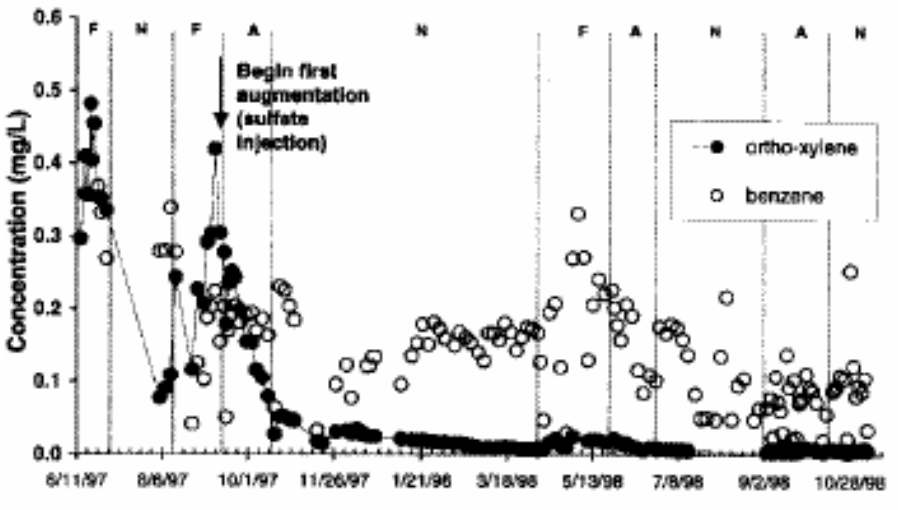
Treatment and Augmentation System





ESTCP Cost & Performance Report, December 1999
http://www.estcp.org/documents/techdocs/199522.pdf

BTEX Removal with Sulfate and Nitrate



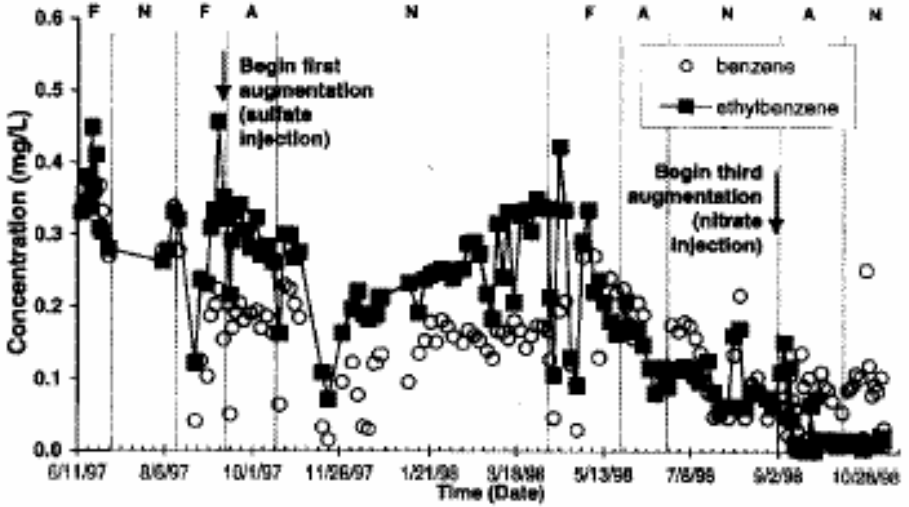


Figure 11. Concentration histories of benzene, *o*-xylene, and ethylbenzene at well 2-B1-4. Upper graph: augmentation with sulfate preferentially stimulates removal of *o*-xylene. Lower graph: ethylbenzene is recalcitrant under sulfate-reducing conditions, but is readily removed under nitrate-reducing conditions.

ESTCP Cost & Performance Report, December 1999
http://www.estcp.org/documents/techdocs/199522.pdf

MTBE – Surface Water Sediments

TABLE 1. Final Percentage Distribution of ^{14}C Radioactivity in Surface Water–Sediment Microcosms after 166 Days[a]

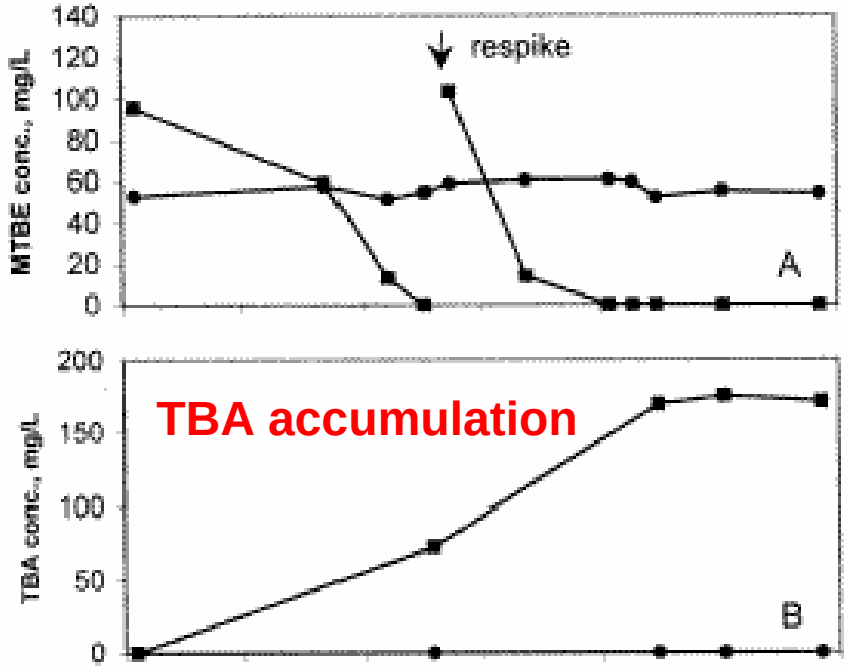
		experimental					control
sediment	amendment	$^{14}CH_4$	$^{14}CO_2$	[^{14}C]MTBE	[^{14}C]TBA	^{14}C total[b]	^{14}C total[c]
Cecil Field	O_2	nd[d]	90 ± 12	8 ± 7	nd	98 ± 8	106
	NO_3	nd	75 ± 14	29 ± 2	nd	104 ± 12	101
	Mn(IV)	2 ± 3	nd	92 ± 5	7 ± 1	101 ± 3	94
	Fe(III)	3 ± 2	nd	88 ± 3	9 ± 1	100 ± 3	92
	SO_4	nd	20 ± 4	82 ± 3	1 ± 1	103 ± 4	101
	UA[e]	3 ± 3	nd	94 ± 6	8 ± 1	105 ± 4	102
Oasis	O_2	nd	72 ± 12	35 ± 6	nd	107 ± 12	98
	NO_3	nd	33 ± 8	72 ± 1	nd	105 ± 7	101
	Mn(IV)	2 ± 1	6 ± 5	88 ± 7	6 ± 2	102 ± 6	95
	Fe(III)	3 ± 2	nd	92 ± 12	8 ± 4	102 ± 10	104
	SO_4	nd	9 ± 3	81 ± 9	9 ± 7	99 ± 7	102
	UA[e]	3 ± 2	2 ± 2	87 ± 10	11 ± 1	103 ± 8	99
Picatinny Arsenal	O_2	nd	58 ± 23	40 ± 3	nd	98 ± 21	98
	NO_3	nd	23 ± 5	81 ± 2	nd	104 ± 4	100
	Mn(IV)	nd	11 ± 2	90 ± 5	3 ± 2	104 ± 4	114
	Fe(III)	nd	14 ± 4	81 ± 10	4 ± 1	99 ± 10	84
	SO_4	nd	12 ± 3	82 ± 3	3 ± 0	97 ± 2	103
	UA[e]	4 ± 2	nd	89 ± 3	8 ± 1	101 ± 2	94

[a] For each treatment, experimental data are means ± SD for triplicate microcosms, and control data are from a single microcosm. Radiolabeled C1–C4 organic acids were monitored but not detected in this study (MDL was 2%). [b] Total ^{14}C recovery as $^{14}CH_4$, $^{14}CO_2$, [^{14}C]MTBE, and [^{14}C]TBA in experimental microcosms. [c] Only [^{14}C]MTBE and [^{14}C]TBA were detected in control microcosms. The ratio of [^{14}C]MTBE:[^{14}C]TBA was 19:1 and did not differ significantly between treatments. [d] Not detected. The MDLs were 2%, 2%, and 1% for $^{14}CH_4$, $^{14}CO_2$ and [^{14}C]TBA, respectively. [e] Unamended treatment. For all sediments, unamended treatments were methanogenic.

TBA accumulation tendency increased with more anaerobic conditions

Bradley, P. et al., Enviro. Sci. Technol., 35(23), 4643-4647, 2001

MTBE – Marine Sediment Enrichments with Sulfate



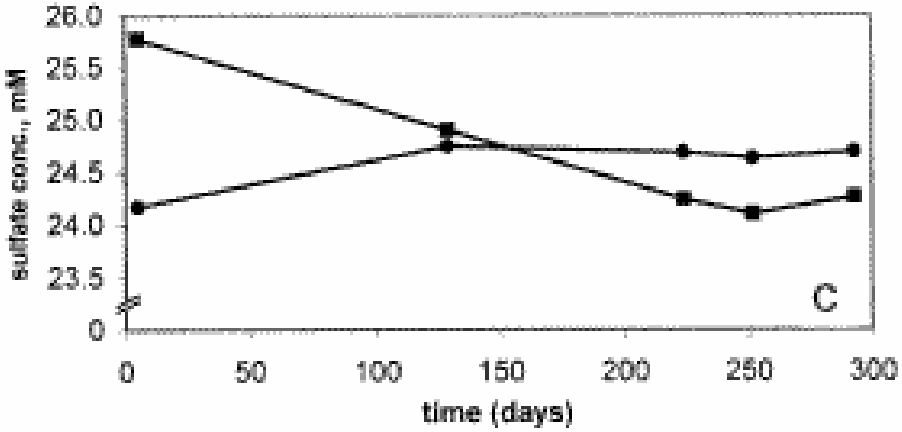


Fig. 2. Anaerobic biotransformation of MTBE by MTBE-enriched sulfidogenic cultures (■) upon transfer into fresh sulfidogenic medium, compared to those of sterile control (●). MTBE biotransformation (A), TBA formation (B), sulfate reduction(C).

Somsamak, P. et al., FEMS Microbiol. Ecology., 37, 259-264, 2001

TBA – Surface Water Sediments

TABLE 1. Final Distribution of ^{14}C Radioactivity in Surface-Water Sediment Microcosms after 198 Days[a]

		experimental			control
sediment	amendment	$^{14}CO_2$	^{14}C-TBA	^{14}C-total[b]	^{14}C-total[c]
Laurens	O_2	99 ± 2	ND[d]	99 ± 2	91
	NO_3	70 ± 10	20 ± 18	90 ± 18	95
	Mn(IV)	75 ± 20	14 ± 10	89 ± 10	95
	Fe(III)	ND	97 ± 13	97 ± 13	107
	SO_4	5 ± 1	92 ± 6	97 ± 4	96
	UA[e]	ND	100 ± 3	100 ± 3	103
Charleston	O_2	99 ± 3	ND	99 ± 3	104
	NO_3	28 ± 5	66 ± 6	94 ± 4	95
	Mn(IV)	ND	94 ± 8	94 ± 8	91
	Fe(III)	ND	101 ± 2	101 ± 2	96
	SO_4	4 ± 1	92 ± 4	96 ± 3	96
	UA	ND	100 ± 0	100 ± 0	108

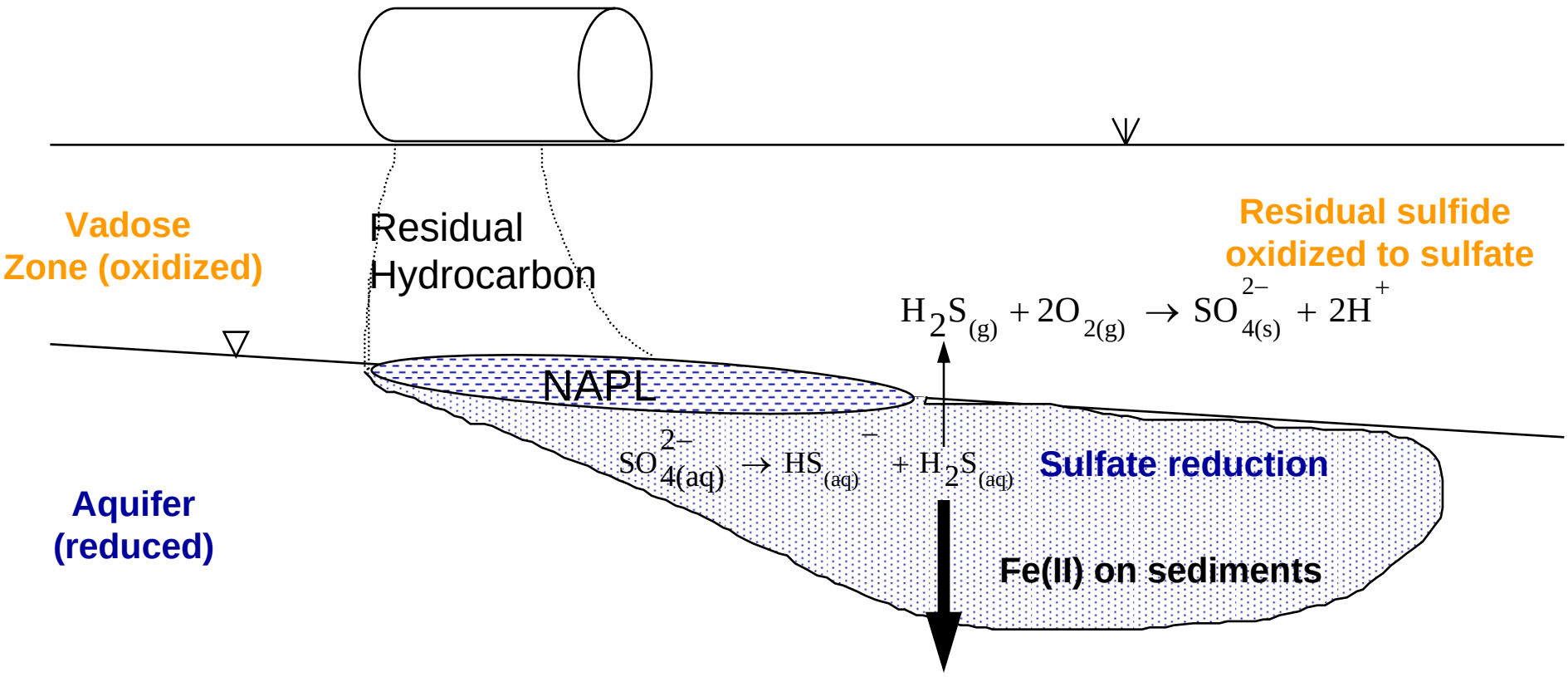
[a] Recoveries are given as the percentage of radioactivity initially added to the sediment microcosms as ^{14}C-TBA. Experimental data for each treatment are means ± SD for triplicate microcosms and control data are from a single microcosm. Radiolabeled C1–C4 organic acids were monitored but not detected in this study (MDL was 2%). [b] Total ^{14}C recovery as $^{14}CO_2$ and ^{14}C-TBA in experimental microcosms. [c] Only ^{14}C-TBA was detected in control microcosms. [d] Not detected. The MDLs were 2% and 1% for $^{14}CO_2$ and ^{14}C-TBA, respectively. [e] Unamended treatment. For both sediments, unamended treatments were methanogenic.

Bradley, P. et al., Enviro. Sci. Technol., 36(19), 4087-4090, 2002

What About Hydrogen Sulfide?

- Colorless gas with a strong odor of rotten eggs
- Exposure limits
  - NIOSH: 10 ppmv (10 minutes)
  - OSHA: 20 ppmv
  - IDLH: 100 ppmv
- Health Hazards
  - Inhalation: irritation to eyes, conjunctivitis, affects CNS
  - Ingestion: excitement, colored urine
  - Contact: nausea, dizziness, suffocation, rapid breath
- Explosive limits: 4% to 44%

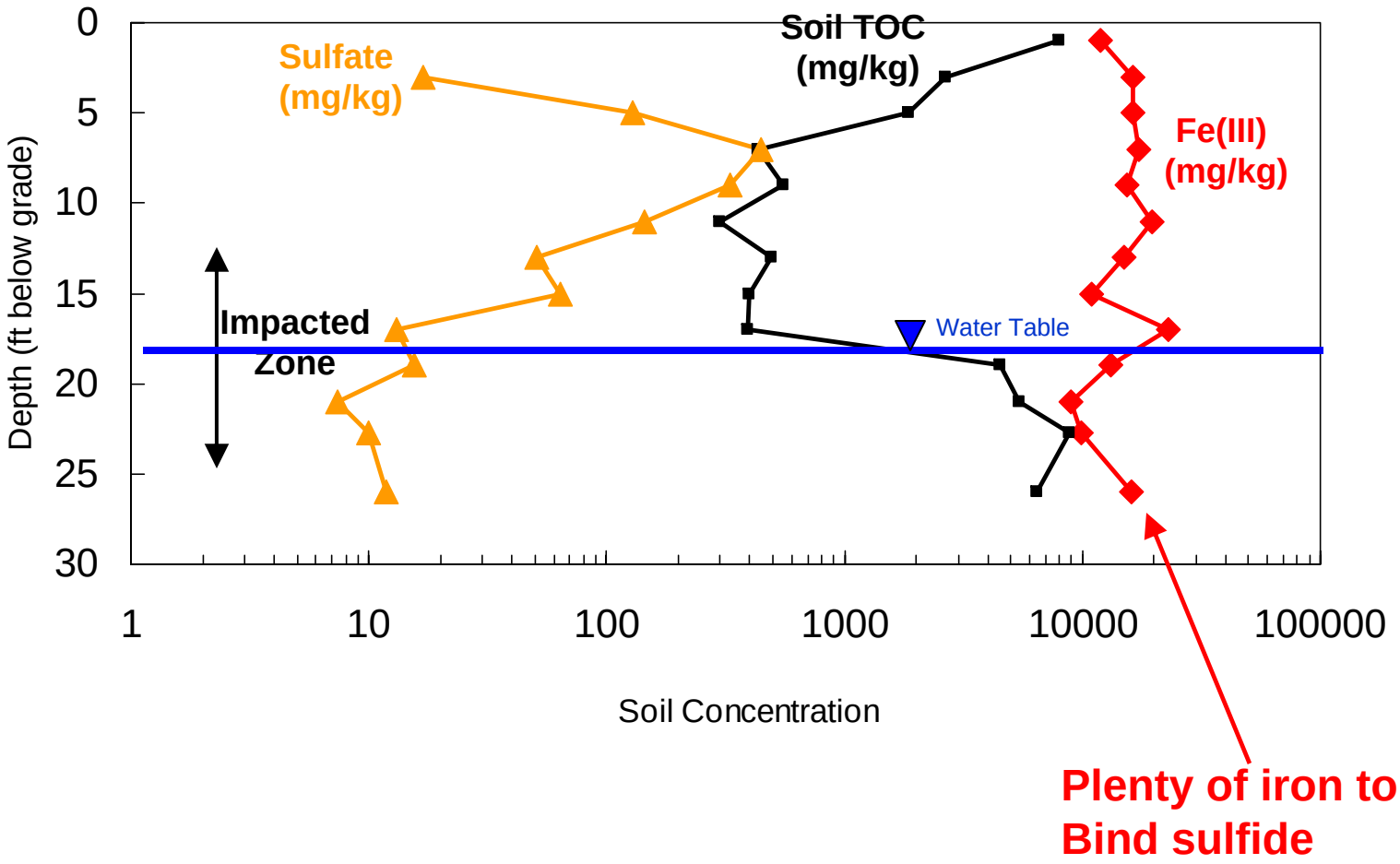
Most of Sulfide is Bound to Soil



$$H_2S_{(aq)} + Fe(II)_{(s)} \rightarrow FeS_{(s)} + 2H^+_{(aq)}$$

Sulfide sequestered as iron sulfides $FeS + S^0 \rightarrow Fe_2S$

Soil Profile at Neodesha (SOW-9)



Refinery Site in Oklahoma

- Operating refinery with an old benzene plume (max. 7.8 mg/L)
- Hydrogeology:
  - Coarse sand (GW seepage velocity 2500 ft/y)
  - DTW: 9-12 ft bgs
- Sodium sulfate injection
  - 40 one-inch wells in 2 rows
  - Sulfate injected: 770 mg/L @ 0.14 gpm (total flow)
  - Maximum sulfate detected in GW: 58 mg/L
  - Sulfide not detected in GW
- **Benzene concentrations were reduced between 73% to 93% in 165 days (half life ~ 2 months)**

Anderson and Loveley, Enviro. Sci. Technol., 34, 2261-2266, 2000

Benzene Reduction Following Sulfate Addition

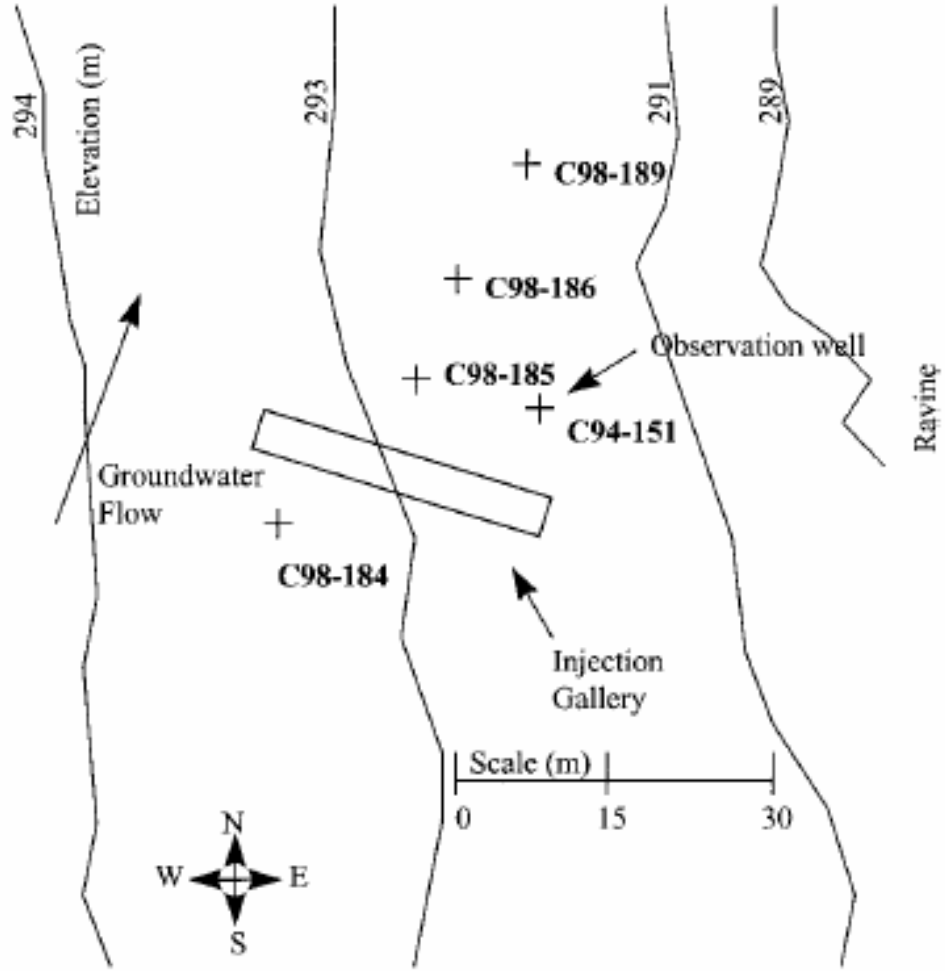


FIGURE 1. Plan view of the injection gallery and positions of the observation wells.

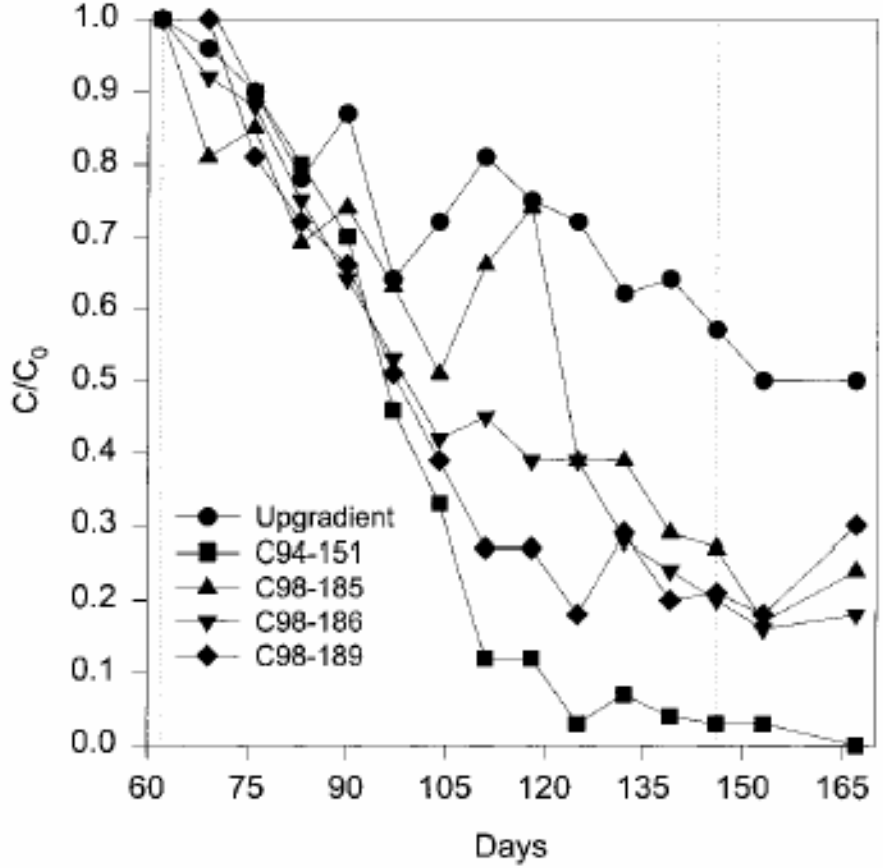
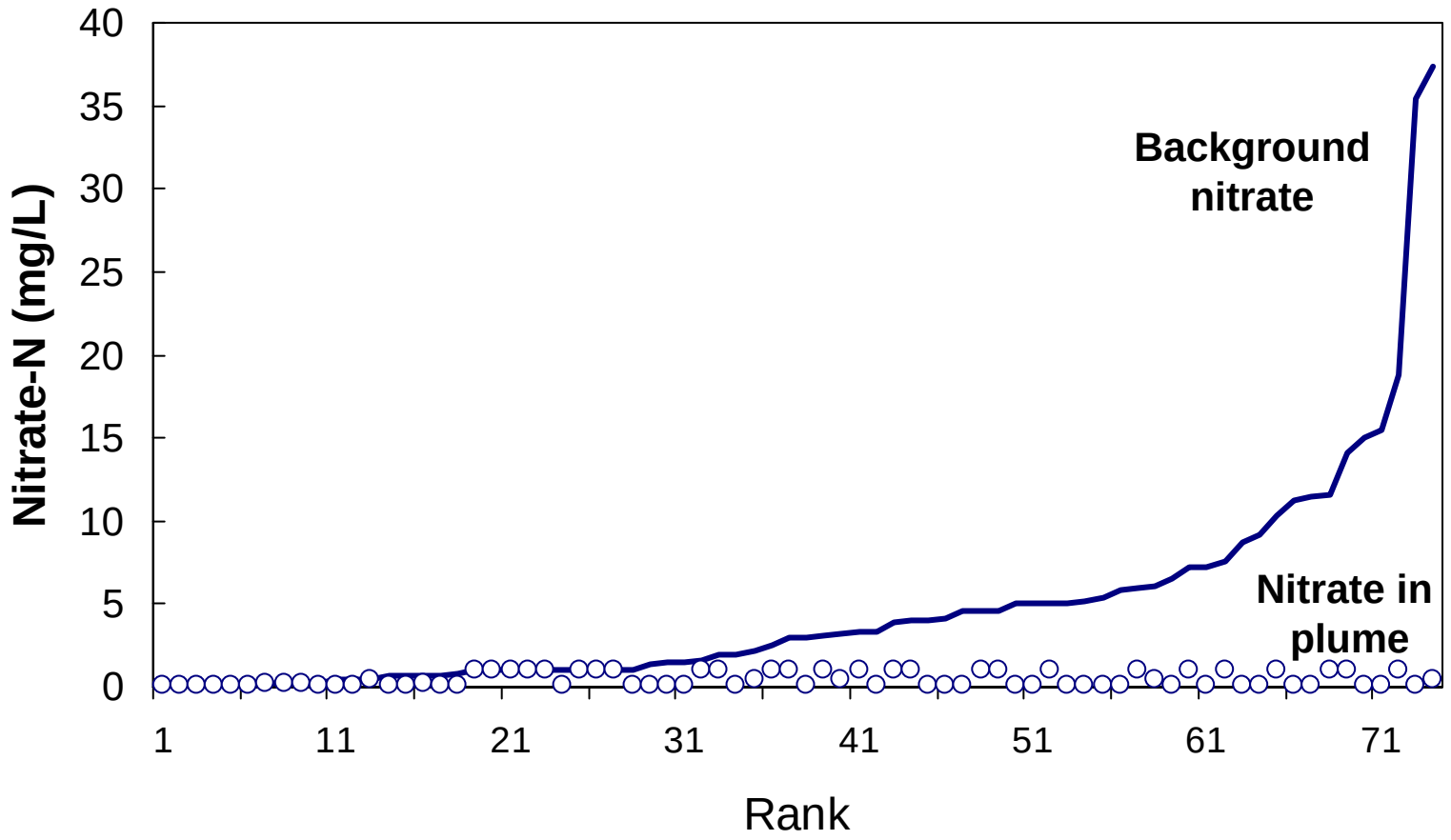


FIGURE 5. Relative decreases in benzene concentrations at the observation wells. All concentrations are normalized to observed benzene concentrations measured just prior to the start of the injection period. Dashed lines indicate the period of sulfate injection.

Anderson and Loveley, Enviro. Sci. Technol., 34, 2261-2266, 2000[28]

Nitrate for Enhanced Bioremediation



Background nitrate concentrations are generally lower and nitrate is depleted in plumes

Nitrate for Enhanced Bioremediation

Facts

- Background levels are generally low
- **Primary MCL of 45 mg/L nitrate**
- Like oxygen, nitrate is utilized to oxidize reduced species (e.g. iron sulfides), as well as other organic carbon

Observations from Field Studies in Literature

⇒ Most pilots and field applications have employed extraction-injection pairs ("recirculation cell")

⇒ Injection concentrations – 50 – 200 mg/L nitrate

⇒ Monitoring periods from 2 to 5 months

⇒ Required 10 to 100 times more nitrate over that required for BTEX biodegradation. **Nitrate known to oxidize sulfide back to sulfate.**

⇒ TEX compounds degraded, but Benzene generally remained persistent (total duration too short?). **Recent evidence of benzene biodegradation with nitrate.**

⇒ **Consider nitrate together with sulfate to increase the electron acceptor pool**

⇒ Naval weapons site, Seal Beach, CA data recommend the same

Benzene and Nitrate Reduction

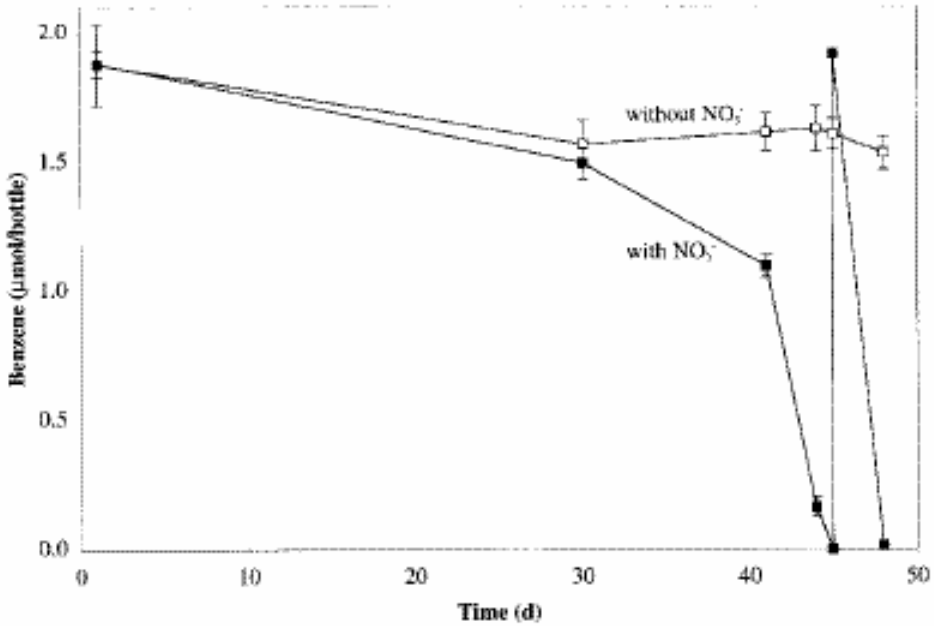


FIG. 2. Plot of benzene concentration versus time for transfer cult in the presence of nitrate (■) and in the absence of nitrate (□). Th means ± standard deviations from triplicate cultures (without ni means ± ranges from duplicate cultures (with nitrate). d, days.

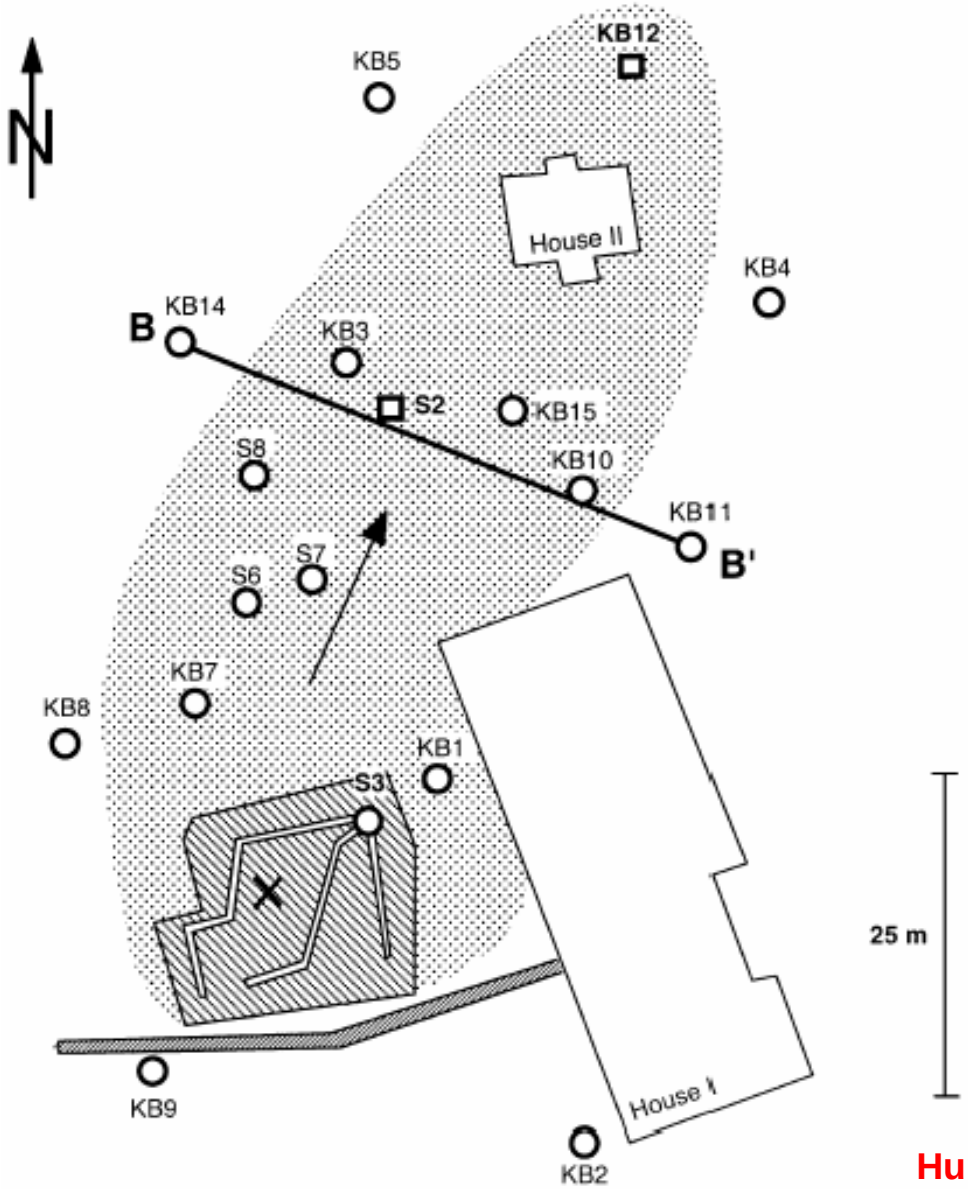
TABLE 1. Benzene biodegradation in microcosms and enriched cultures

Microcosms or cultures	Year(s)	Rate of benzene degradation (μmol/liter/day)	Nitrate/ benzene ratio
Original microcosms	1995	3.2 (0.14)[a]	49.6 (15.8)
Enriched microcosms	1995–1997	7.6 (0.10)	12.6 (3.3)
First-generation transfer cultures	1997	11.0 (2.5)	11.1 (2.5)
Subsequent transfer cultures	1997–1998	18.7 (13.0)	10.1 (1.7)

[a] Values are means (standard deviations).

Rothermich et al., Enviro. Sci. Technol., 36, 4811-4817, 2002

Engineered Bioremediation of a Diesel-impacted Aquifer



- Menziken, Switzerland
- 4.5 years
- GW pumped from S2 or KB12
- Water aerated and amended with KNO_3 (84 mg/L nitrate) and ammonium phosphate
- Re-injected in S3 connected to infiltration gallery

Hunkeler et al., J. Contam. Hydro., 59, 231-245, 2002[32]

Natural Diesel Biodegradation Following Engineered Bioremediation

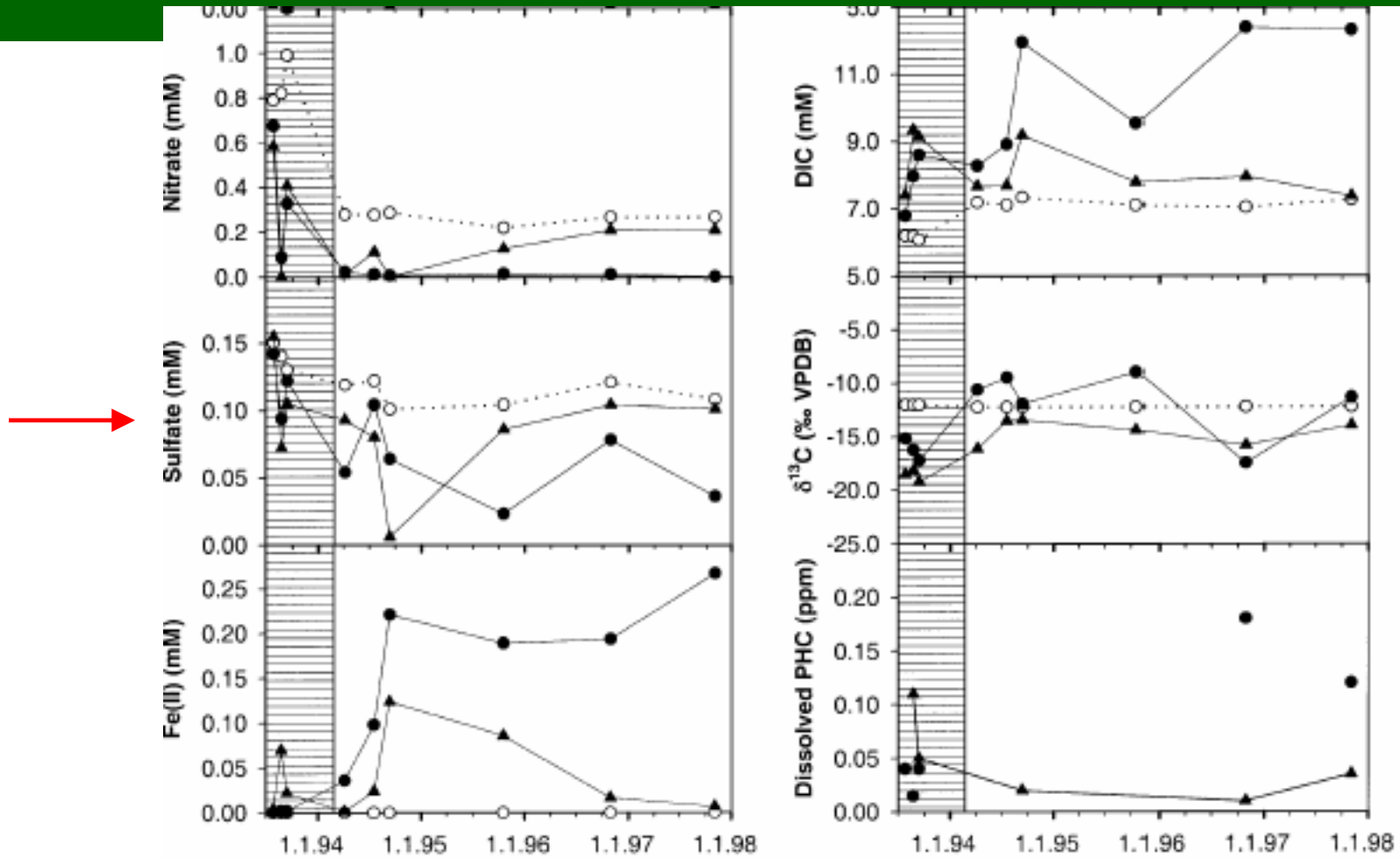


Fig. 3. Values of selected parameters for monitoring wells S6 (●) and KB15 (▲) during and after engineered in situ bioremediation. Expected values at S6 if the species entering the contaminated zone had behaved like a non-reactive tracer (○). The expected values were calculated according to Eq. (3). Shaded area: engineered in situ bioremediation in operation.

Hunkeler et al., J. Contam. Hydro., 59, 231-245, 2002[33]

Applications

- Dissolved Plume
  - Addition of solution of sulfate salts (e.g. epsom, sodium sulfate)
  - Design sulfate addition (concentration and flow rate) based on sulfate demand for the mass flux of dissolved BTEX
    - Continuous addition, Periodic slug addition
    - Row of addition wells, infiltration gallery
    - Gypsum socks in transect of wells
    - Extract down-gradient, amend sulfate-nitrate and re-infiltrate up-gradient

- Source Area (or hotspots)
  - Agricultural gypsum amendment (up to 1% w/w) to source area excavation backfill material as a long term source of sulfate
  - Cost effective: ag gypsum ~ $ 19 to 150/t vs $16530/ton for ORC
  - Site selection criteria and application procedure (Gypsum FAQs)

Site Selection Criteria (Sulfate)

- Site with residual impact (“sheen” or high dissolved), but not with “gross” free product impacts
- Shallowest water table > 5 ft below grade
- Distance to residence, surface water or private well > 100 ft
- Distance to municipal DW well (100s of gpm) > 1250 ft
- Analyze GW samples from “clean” and “impacted” wells for BTEX, sulfate, sulfide, Fe(II), pH, Total Inorganic Carbon (or total alkalinity). Site suitable if
    1. Sulfate in clean wells > 15 mg/L and
    2. Sulfate depleted in impacted wells
    3. Elevated Fe(II) in impacted wells

Remedial Design Guidance

Data Input (in yellow highlighted cells)

			Comments/Basis
Site Name			
Hydraulic Conductivity Estimate (K)	200	ft/d	Preferablly based on slug test or pump test data
Thickness of impacted saturated zone	10	ft	Estimate as length of screened interval of most impacted well
Hydraulic gradient	0.003	ft/ft	
Width of GW plume being addressed	10	ft	Lateral extent of proposed treatment (e.g. row of wells)
Maximum BTEX concentration	3.50	mg/L	
Safety Factor for sulfate demand (over stoichiometric)	2		Assume 2 to 4
Injection Sulfate Concentration	500	mg/L	Higher of sulfate in un-impacted water or 250 mg/L
Number of injection wells	2		Design choice

Calculations

Total groundwater volumetric flux (Q = KiA)	60	ft3/d	
Mass flux of BTEX Through Treatment Zone	5945	mg BTEX/d	
BTEX degraded/mass of sulfate	0.22	(mg/mg)	Based on stoichiometry for benzene and sulfate
Stoichiometric Sulfate Demand	27025	mg sulfate/d	
Total sulfate injection volume (w/ safety factor)	29	gal/d	

Design Choices for Liquid Sulfate Addition

Option 1: Continuous Addition

Solution Flow/well	0.010	gpm/well	Adjust sulfate concentration to get reasonable flow

Option 2: Addition in Slugs

Slug Addition Frequency	2	times/week	
Required Slug Addition Rate	200	gal/week	
Slug volume/well/event	50	gal	

Chemical Requirements

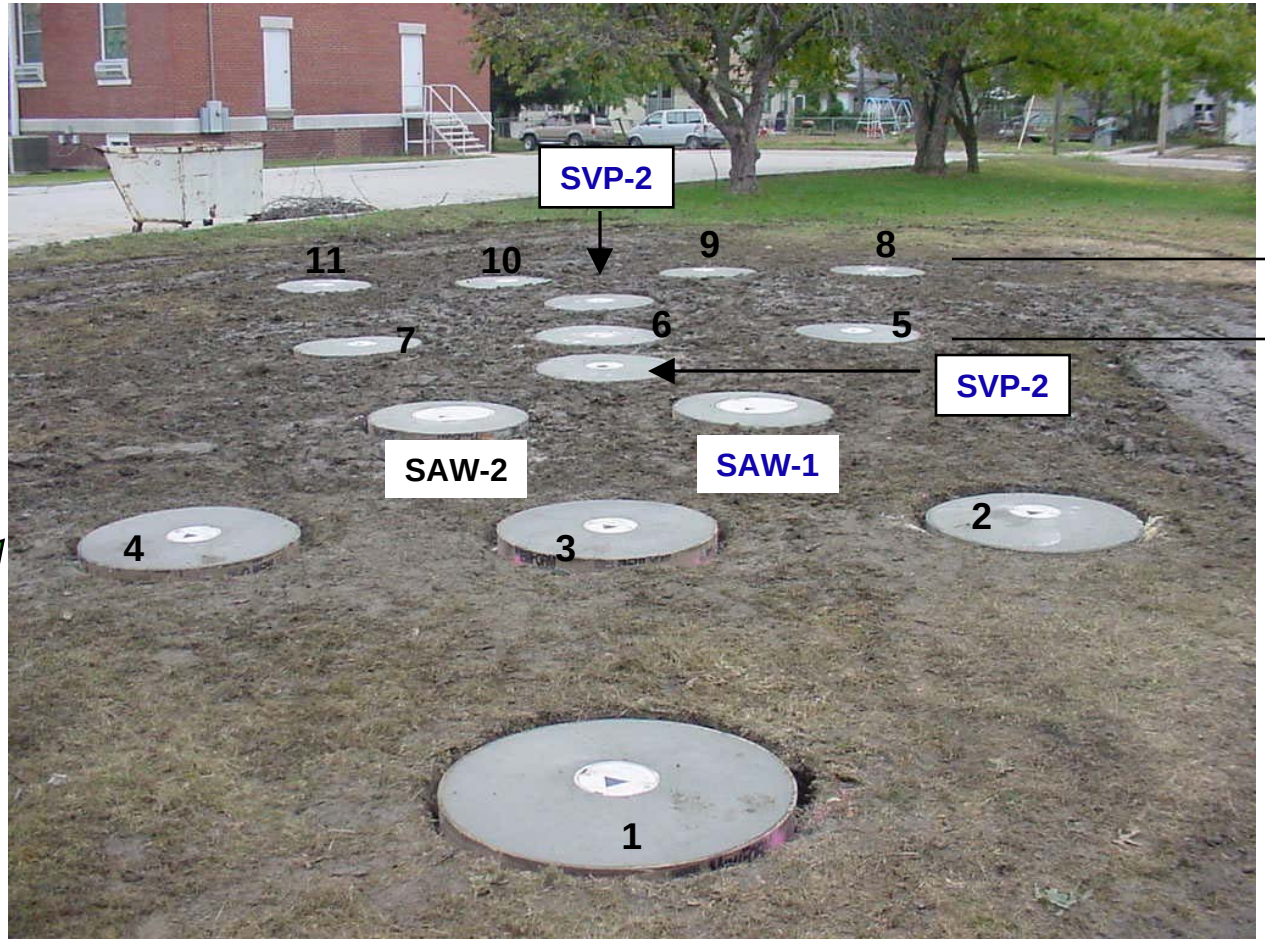
Salt Used	MW (gm)	Quantity Required (gm/d)	Unit Cost ($/lb)	Chemical Cost ($/year)
Epsom salt ($MgSO_4.7H_2O$)	120.37	**68**	0.75	**41**
anhydrous Sodium Sulfate	142	**80**	1.76	**113**

Summary

- Most plumes are anaerobic and depleted of soluble electron acceptors (nitrate and sulfate)
- Sulfate
  - Sulfate is more efficient and stimulates existing anaerobic conditions
  - Suitable for a variety of hydrocarbons – gasoline, gas condensate, alkanes, PAH, diesel…
  - Sulfide not been an issue in studies (OK refinery, Seal Beach site, other literature, closed BP refinery site)
  - Expect some lag time after sulfate shows up at the wells (3 – 6 months)!
- Nitrate
  - Useful to oxidize iron sulfides to sulfate
  - Useful to boost the total electron acceptor pool

Pilot Layout

35 gal of 500 mg/L sulfate, 100 mg/L bromide twice a week/well



20 ft

8 ft

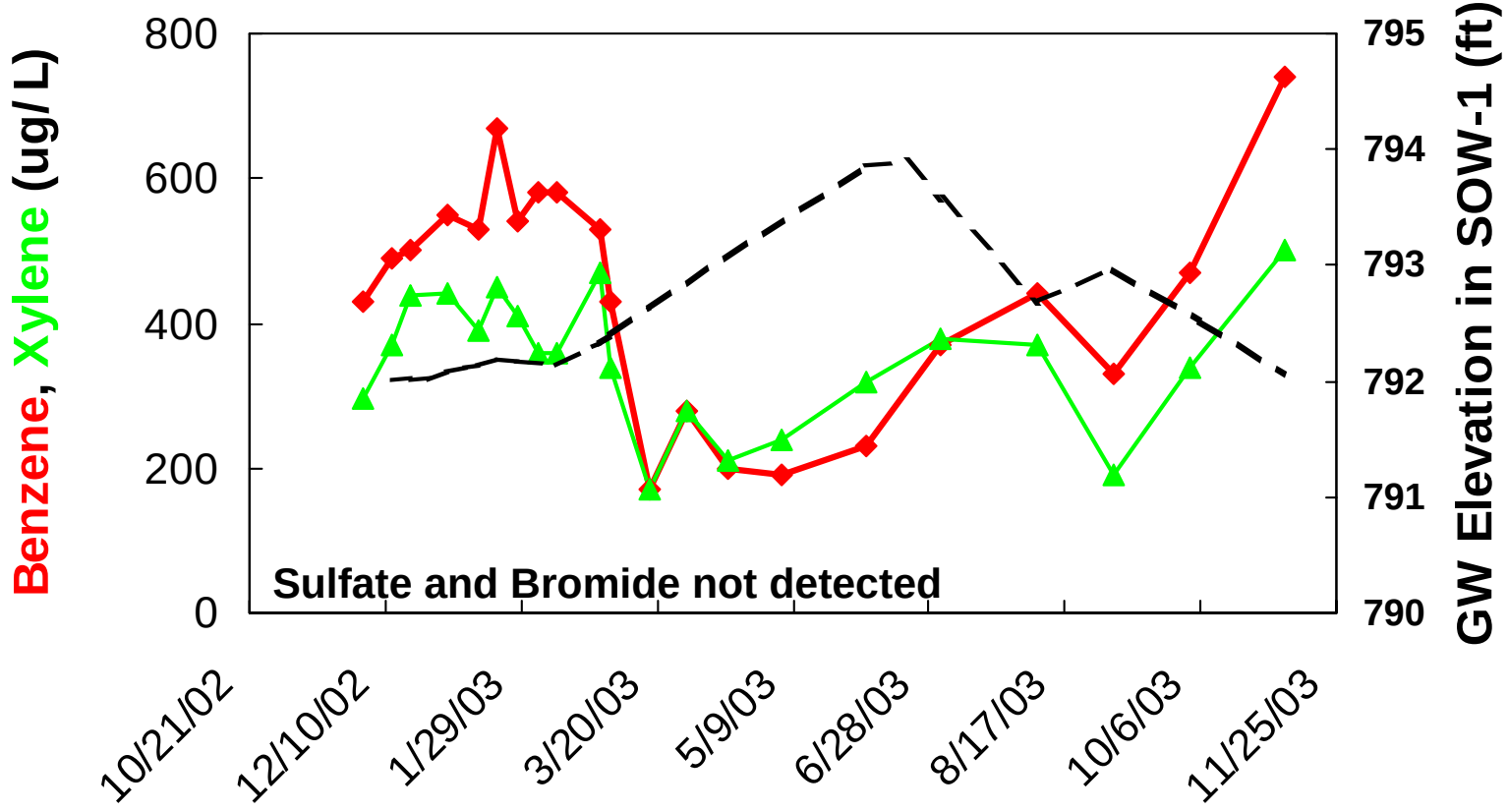
Addition well

- 8 ft

- 20 ft

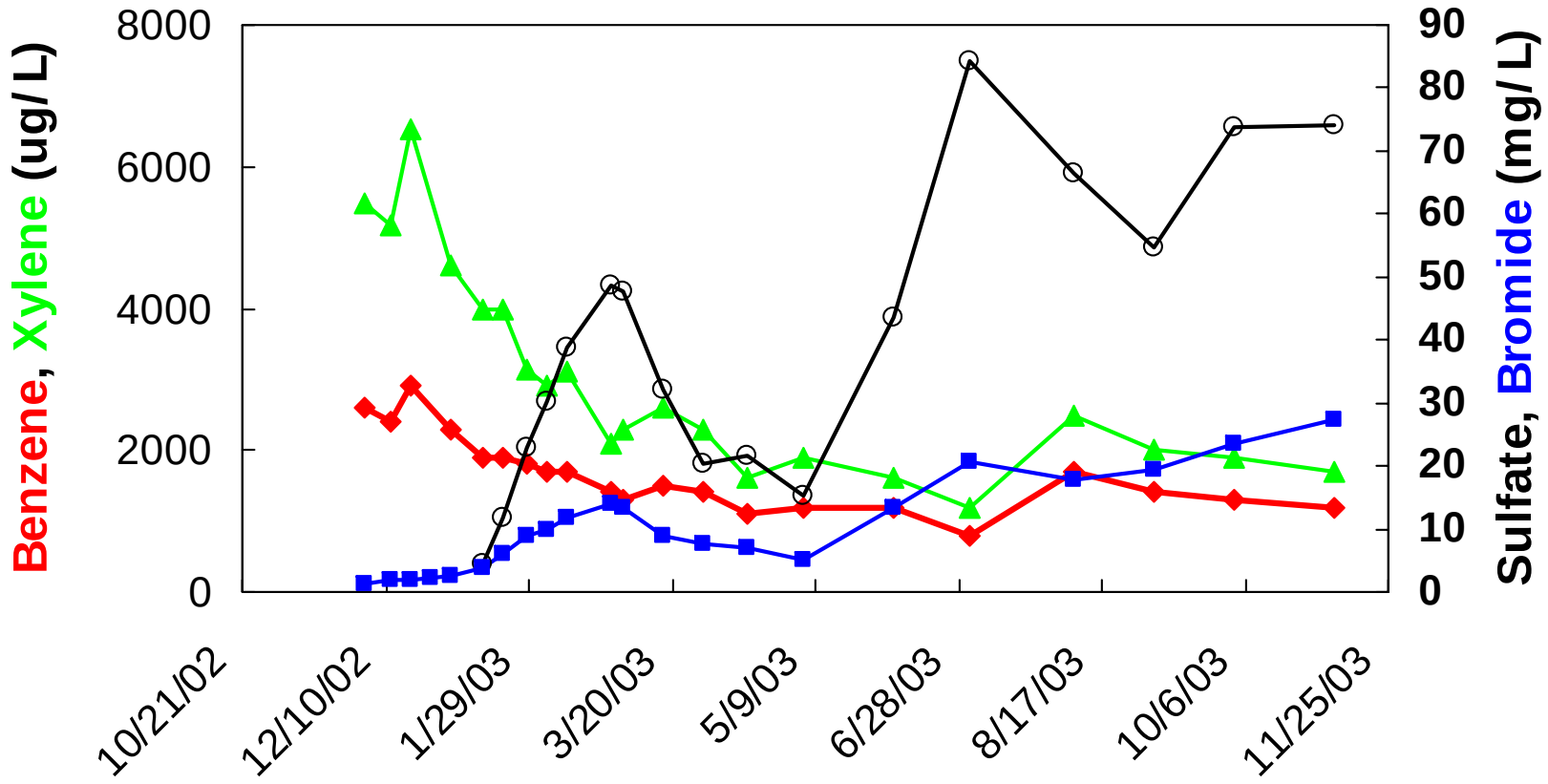
GW Flow

Up-gradient Well (SOW-1)



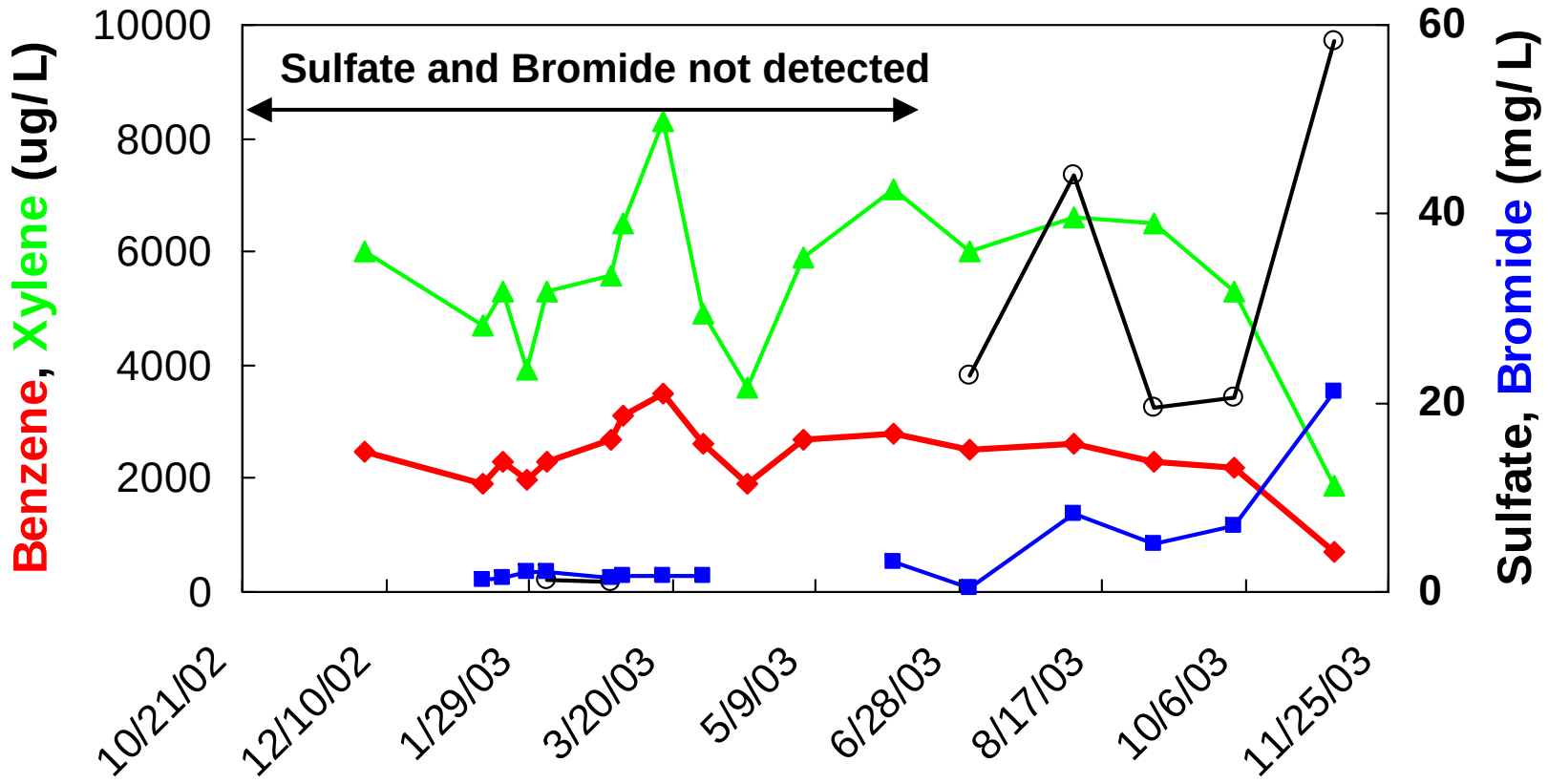
Variations in B and X related to groundwater fluctuations

20 ft Downgradient Well (SOW-10)



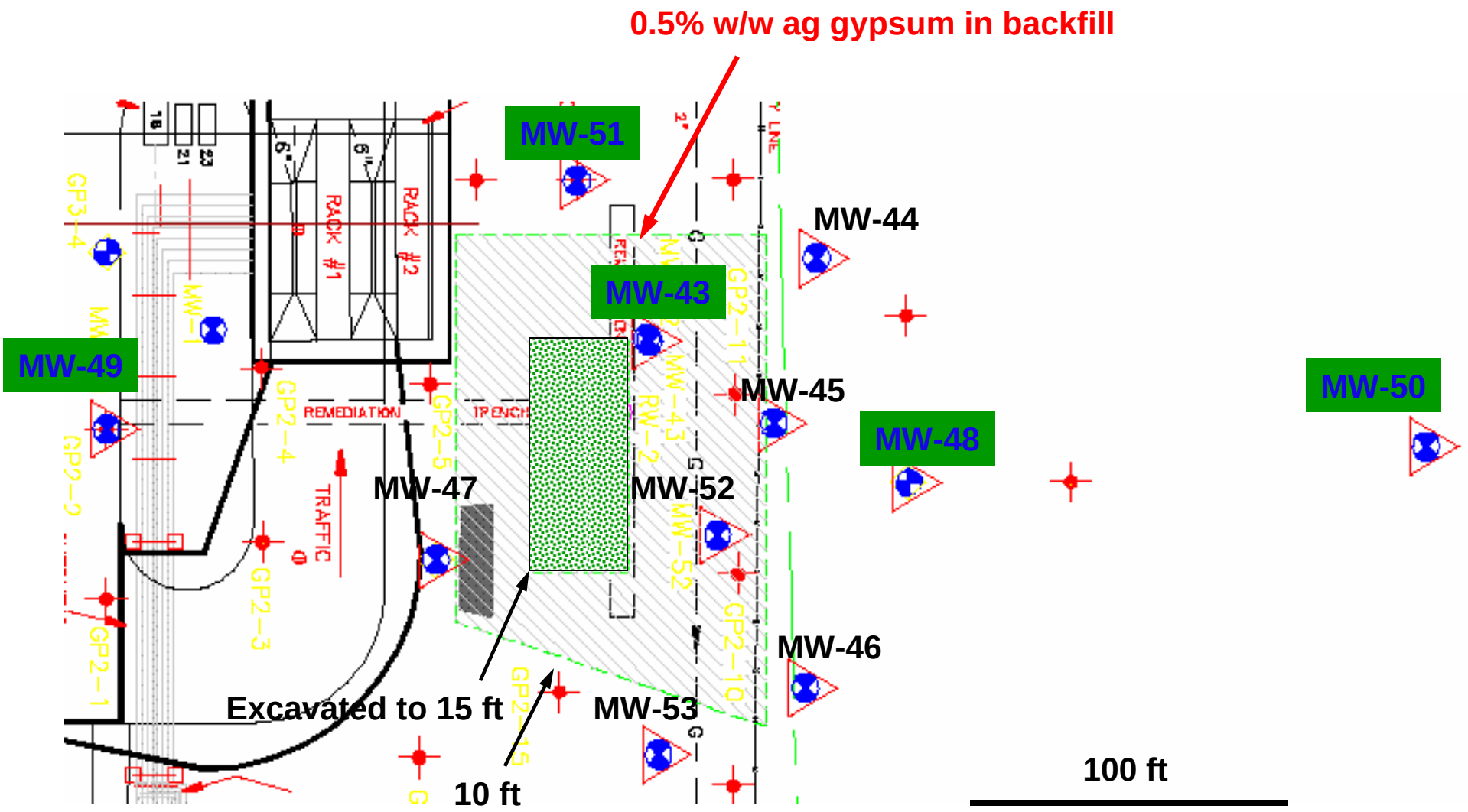
Significant decrease in B and X in presence of sulfate

20 ft Downgradient Well (SOW-11)



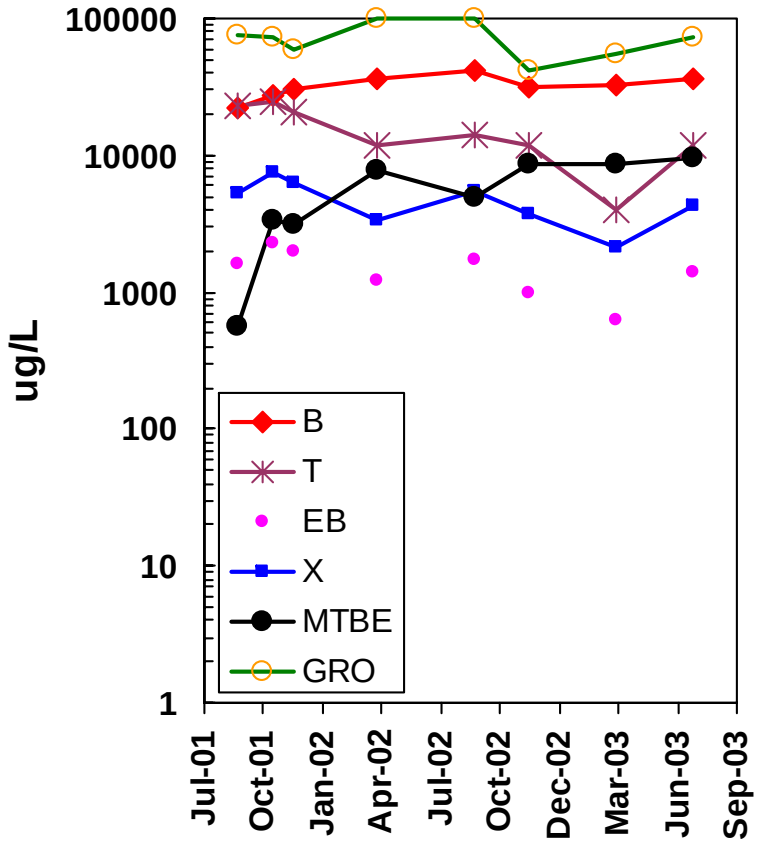
Decrease in B and X following arrival of sulfate

Terminal in Minnesota
Ag gypsum in Excavation



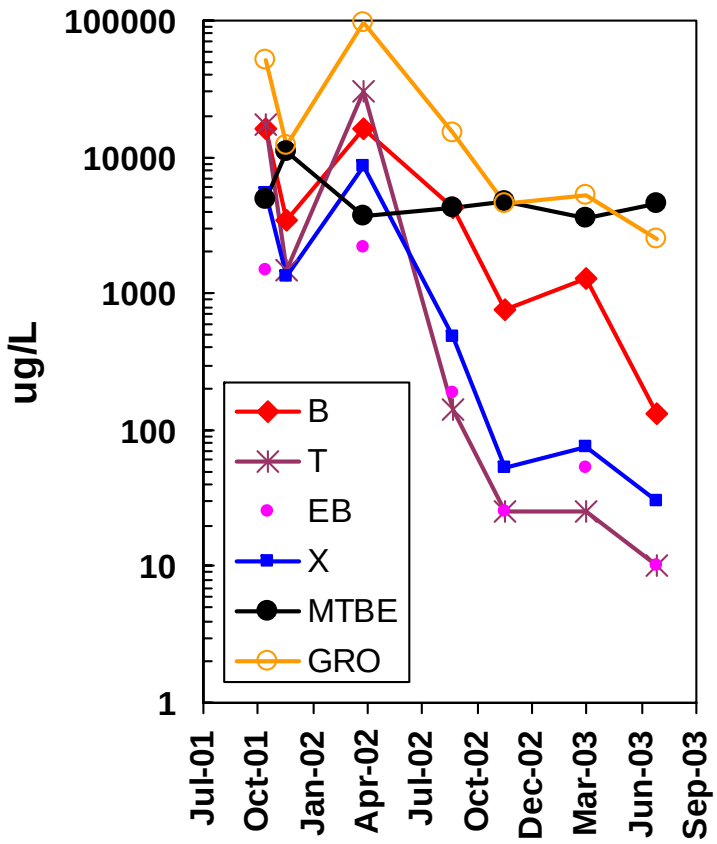
Effect of Sulfate on BTEX and TPH

MW-49 Up-gradient of excavation



- **Sulfate not present**
- **Groundwater impact stays**

MW-45 Down-gradient of excavation



- **Sulfate upto 290 mg/L**
- **Groundwater cleans up!**

SAFETY DATA SHEET
Sulfate BioChem (SBC)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Sulfate BioChem (SBC)**
GENERAL USE: **Anaerobic oxidation of petroleum products**

MANUFACTURER:

Redox Tech, LLC
200 Quade Drive
Cary, NC 27513
919-678-0140

EMERGENCY TELEPHONE:

Within USA and Canada: 1-800-424-9300
+1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May have a slight sulfur odor.
Off-white granular powder.
May react in the presence of a reducing agent and water to produce hydrogen sulfide.
Contact with eyes will likely cause irritation and should be rinsed immediately.
Should be no irritation upon contact with skin.
Dusk exposure may cause irritation to breathing tract.

3. COMPOSITION INFORMATION ON INGREDIENTS

All the components are non-hazardous

4. FIRST AID MEASURES

EYES: Immediately flush with water for 15 minutes. See a medical doctor immediately thereafter.

SKIN: Rinse with water. Irritation is unlikely, but if irritation occurs or persists, seek medical attention.

INGESTION: Dilute by drinking 1-2 liters of water. Do not induce vomiting. It may induce diarrhea. If diarrhea persists, seek medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, seek medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Deluge with water

FIRE/EXPLOSION HAZARDS: Product in non-combustible but it may release noxious sulfur compounds during a fire.

FIRE FIGHTING PROCEDURES: Use flooding with plenty of water, carbon dioxide or other inert gasses. Wear full protective clothing and self-contained breathing apparatus. Deluging with water is the best method to control combustion of the product.

FLAMMABILITY LIMITS: non-combustible

SENSITIVITY TO IMPACT: non-sensitive

SENSITIVITY TO STATIC DISCHARGE: not available

6. ACCIDENTAL RELEASE MEASURES

Confine and collect spill. Transfer to an approved DOT container and properly dispose. Do not dispose of or rinse material into sewer, stormwater or surface water.

7. HANDLING AND STORAGE

HANDLING: Avoid contact by using personal protective equipment.

STORAGE: Keep dry. Use first in, first out storage system. Keep container tightly closed when not in use. Avoid contamination of opened product. Avoid contact with reducing agents.

COMMENTS: Use gentle mechanical ventilation or exhaust during use to minimize dust production.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

All components are non-hazardous

ENGINEERING CONTROLS: None are required. If active ventilation is used, it should be gentle as to not create dust.

PERSONAL PROTECTIVE EQUIPMENT

EYES and FACE: Safety goggles
RESPIRATOR: dusk mask but not respirator
PROTECTIVE CLOTHING: None necessary
GLOVES: rubber, latex or neoprene

9. PHYSICAL AND CHEMICAL PROPERTIES

Odor:	none to slight sulfur
Appearance:	white to slightly yellow, solid
Auto-ignition Temperature	Non-combustible
Boiling Point	>600 C
Melting Point	48.1 C
Density	0.95 gram/cc
Solubility	340 g/L
pH	6-8

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: reducing agents. Product will melt over 48.1 C
STABILITY: product is stable
POLYMERIZATION: will not occur
INCOMPATIBLE MATERIALS: reducing compounds may result in noxious hydrogen sulfide production
HAZARDOUS DECOMPOSITION PRODUCTS: may produce hydrogen sulfide in presence of reducing agents, and sulfur oxides at elevated temperatures.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
A: General Product Information
Acute exposure may cause mild skin and eye irritation. Gastrointestinal absorption may cause acute magnesium poisoning. Symptoms include flushing, sweating, low blood pressure, depression of reflexes, flaccid paralysis, hypothermia, circulatory collapse, and depression of CNS and heart function. Excessive long-term ingestion of this product may cause also cause magnesium poisoning with symptoms described above.

B: Component Analysis - LD50/LC50
No information available.

B: Component Analysis - TDLo/LDLo
TDLo (Oral-Man) 183 mg/kg/4 hours-intermittent: Gastrointestinal: hypermotility, diarrhea;
LDLo (Intraduodenal-Woman) 5344 mg/kg

Carcinogenicity
A: General Product Information
No information available.
B: Component Carcinogenicity
Product is not listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Epidemiology
No information available.

Neurotoxicity
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No information available.
Environmental Fate
No potential for food chain concentration

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Material is not considered hazardous, but consult with local, state and federal agencies prior to disposal to ensure all applicable laws are met.

14. TRANSPORT INFORMATION

NOTE: The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

US DOT Information
Shipping Name: Not Regulated
Hazard Class: Not Classified
UN/NA #: Not Regulated
Packing Group: None
Required Label(s): None

50th Edition International Air Transport Association (IATA):
Not Regulated

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

Material is not regulated under IMDG

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III

SECTION 311 Hazard for Immediate health Hazard
SECTION 312 No Threshold Quanitity
SECTION 313 Not listed

CERCLA NOT REGULATED UNDER CERCLA
TSCA NOT REGULATED UNDER TSCA
CANADA (WHIMS): NOT REGULATED

16. OTHER INFORMATION

HMIS:

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	E

E: Safety Glasses, gloves and dusk mask

Attachment C

Schedule

Schedule of Supplemental Groundwater Injection
Former Pfizer Site C - C224288

Description	Time Period	Date
Injection of SBC	1 Week following the approval of the Groundwater Remedation Supplemental RAWP Addendum	Week of September 18th
Sampling of Monitoring Wells	2 months following injections	Week of November 20, 2023
Submittal of Groundwater Results to NYSDEC	1 week after reciept of results	Week of November 27, 2023