



**ENVIRONMENTAL BUSINESS CONSULTANTS**

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August 20, 2018

Ms. Alicia A Barraza  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 2  
Division of Spill Prevention and Response Programs  
47-40 21<sup>st</sup> Street, Long Island City, New York 11101

**Re:    Quarterly Groundwater Sampling Report**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Queens, New York**  
**NYSDEC BCP Number: C241141**

Dear Ms. Barraza:

Please find the enclosed Quarterly Groundwater Sampling Report for the above referenced project for the first quarter of 2018. In accordance with the Site Management Plan (SMP), a round of groundwater sampling was performed on March 23, 2018 for 15MW1, 15MW2 and 15MW3.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Thomas Gallo  
Environmental Geologist

Kevin Waters  
Project Manager

Cc:    J. O'Connell, NYSDEC  
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**34-11 BEACH CHANNEL DRIVE SITE**  
**NYSDEC BCP Number C241141**  
**Project Status Report**  
**2018**

**Reporting Summary**

<b>Report Date:</b>	August 20, 2018
<b>Reporting Period:</b>	1st Quarter of 2018
<b>Site Status:</b>	Building is under construction, currently working on interior
<b>Work Performed this Quarter:</b>	March 23, 2018 – Groundwater sampling events performed on the three on-site monitoring wells.
<b>Remediation Status:</b>	No chemical oxidant events were performed during this period. A chemical oxidant injection was last performed on December 18, 2015, January 2, 2016 and July 5, 2016.

**Monitoring Program Summary**

<b>No. of Wells:</b>	3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Gauging Frequency:</b>	Quarterly for the three monitoring wells.
<b>Sampling Frequency:</b>	Quarterly, 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Reporting Frequency:</b>	Groundwater Sampling Report (Quarterly).
<b>Groundwater Depth:</b>	5.5 ft (sidewalk grade)
<b>GW Flow Direction:</b>	Historically groundwater flow direction was to the west, but during the first quarter groundwater sampling event the groundwater flow direction was inconclusive
<b>Monitoring Results:</b>	No product was detected within any of the monitoring wells.
<b>Sampling Results:</b>	VOCs were detected above NYSDEC GQS in all three of the monitoring wells sampled during this round.

**OXIDANT INJECTIONS:**

No chemical oxidant injections were performed during this period. Chemical Oxidant Injections were last performed on July 5, 2016.

## LIQUID LEVEL MONITORING:

Depths to water readings were taken from the 3 monitoring wells with an electronic interface meter prior to purging the wells for sampling. As previously noted, no Liquid Phase Hydrocarbons (LPH) was detected in any of the monitoring wells or injections points during this quarter.

Groundwater elevation as, determined from the depth to water readings and casing elevation, was used to approximate groundwater contours and the groundwater flow direction for the site (**Figure 2**). Groundwater elevation details are provided in **Table 1**. Historically groundwater flow direction was to the west, but during the first quarter groundwater sampling event the groundwater flow direction was inconclusive (**Figure 3**).

## GROUNDWATER SAMPLING:

The 1Q18 groundwater sampling event was performed on March 23, 2018. The groundwater samples were collected from 15MW1, 15MW2 and I5MW3 in accordance with the low-flow groundwater sampling procedures outlined within the SMP. See (**Figure 1**) for the location of all site monitoring wells and chemical oxidant injection wells. A copy of each of the Well Purging-Field Water Quality Measurements Form is attached as (**Appendix A**). The groundwater samples were picked up by laboratory dispatched courier and delivered to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260.

Copies of the laboratory reports are attached as (**Appendix B**). The laboratory results are summarized and compared to their appropriate standards/criteria in (**Table 2**) and to previous sampling events in (**Table 2A-2C**).

## GROUNDWATER SAMPLING RESULTS:

15MW1 – Total VOC concentrations within 15MW1 have showed a decrease from 50.45 µg/L to 26.87 µg/L and CVOC concentrations have shown a decrease from 48.65 µg/L to 24.79 µg/L, since the 4Q17 sampling event.

15MW2 – Total VOC concentrations within 15MW2 have showed a decrease from 66.63 µg/L to 42.67 µg/L and CVOC concentrations have shown a decrease from 65.90 µg/L to 33.27 µg/L, since the 4Q17 sampling event.

15MW3 - Total VOC concentrations within 15MW3 have showed a decrease from 71.1 µg/L to 28.64 µg/L and CVOC concentrations have shown a decrease from 70 µg/L to 28.04 µg/L, since the 4Q17 sampling event.

## GROUNDWATER VOC CONCENTRATION TRENDS:

As depicted in the concentration graphs (**Graphs 1-3**), remedial efforts from 2015 through 2016 resulted in a significant reduction in CVOC concentrations in the current focus area as defined by wells 15MW1, 15MW2 and 15MW3. The total VOC concentration within 15MW1 decreased during this sampling event which followed an overall decreasing trend. The CVOC concentration within 15MW1 decreased during this sampling event, with Vinyl Chloride and cis-1,2-Dichloroethene remaining above NYSDEC GQS. The total VOC concentration within 15MW2 decreased during this sampling event which followed an overall decreasing trend, except for the 2Q17 sampling event which had an increase in Petroleum VOC concentrations. The CVOC concentration within 15MW2 decreased during this sampling event, with Vinyl Chloride and cis-1,2-Dichloroethene remaining above NYSDEC GQS. The total VOC concentration within 15MW3 decreased during this sampling event which followed an overall decreasing trend, except for the 4Q16 and 1Q17 sampling events which showed an increase in cis-1,2-Dichloroethene, Trichloroethene and Vinyl Chloride. The CVOC concentration within 15MW3 decreased during this sampling event, with Vinyl Chloride and cis-1,2-Dichloroethene remaining above NYSDEC GQS.

Prior to building construction on the site, groundwater flow maps indicated a general west-northwesterly flow direction from the site towards the intersection of Beach 34<sup>th</sup> Street and Beach Channel Drive. During this sampling event, the groundwater flow could not be determined due to the linear configuration of the monitoring wells (**Figure 2**).

#### FUTURE PLANS / RECOMMENDATIONS:

Remedial efforts at the Site have been successful in significantly reducing overall chlorinated VOCs in groundwater. Water quality is expected to continue to improve over time. The rebound of chlorinated VOCs that had been observed in 15MW3 during the 4Q16 and 1Q17 sampling has continued on a downward trend since the 1Q17 sampling event.

EBC therefore requests the termination of groundwater monitoring based on the low levels of VOC concentrations observed.

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## **TABLES**

34-11 Beach Channel Drive Site  
34-11 Beach Chanel Drive, Far Rockaway, NY

Table 1  
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 3/23/2018	DTP	PT	GW ELV 3/23/2018
15MW1	1	30	15 to 30	5.25	94.75	5.98	-	-	88.77
15MW2	1	30	15 to 30	5.35	94.65	4.95	-	-	89.70
15MW3	1	30	15 to 30	5.37	94.63	5.61	-	-	89.02

**TABLE 2**  
**34-11 Beach Channel, Far Rockaway, NY**  
**Groundwater Sample Results**  
**1st Quarter 2018 - March 2018**

COMPOUND	NYSDEC Ambient Water Quality Standards µg/L	15MW1		15MW2		15MW3		GW Duplicate	
		3/23/2018		3/23/2018		3/23/2018		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,1-Trichloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0
1,1,2,2-Tetrachloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,2-Trichloroethane	1	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0
1,1-Dichloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0
1,1-Dichloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1-Dichloropropene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,2,3-Trichlorobenzene		<0.25	0.25	<0.25	0.25	<0.25	0.25	<1.0	1.0
1,2,3-Trichloropropane	0.04	<1.0	1.0	<1.0	1.0	<1.0	1.0	<0.25	0.25
1,2,4-Trichlorobenzene		0.29	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,2,4-Trimethylbenzene	5	<0.50	0.50	<0.50	0.50	<0.5	0.50	<1.0	1.0
1,2-Dibromo-3-Chloropropane	0.04	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.50	0.50
1,2-Dibromoethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<0.25	0.25
1,2-Dichlorobenzene	5	<0.60	0.60	<0.60	0.60	<0.60	0.60	<1.0	1.0
1,2-Dichloroethane	0.6	<1.0	1.0	<1.0	1.0	<1.0	1.0	<0.60	0.60
1,2-Dichloropropane	1	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3,5-Trimethylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3-Dichlorobenzene		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3-Dichloropropane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,4-Dichlorobenzene	5	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0
1,4-dioxane	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
2-Hexanone		<2.5	2.5	<2.5	2.5	<2.5	2.5	<1.0	1.0
2-isopropyltoluene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<2.5	2.5
2,2-Dichloropropane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
4-Chlorotoluene	5	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0
4-Methyl-2-Pentanone		<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5
Acetone		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Acrolein	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Acrylonitrile	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Benzene	1	<b>1.70</b>	0.70	<0.70	0.70	<b>0.6</b>	0.70	<b>1.6</b>	0.70
Bromobenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromochloromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromodichloromethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromoform		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Carbon Disulfide	60	<1.0	1.0	<1.0	1.0	<1.0	1.0	<b>0.31</b>	1.0
Carbon Tetrachloride	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloromethane	60	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
cis-1,2-Dichloroethene	5	<b>5.40</b>	1.0	<b>5.9</b>	1.0	<b>9</b>	1.0	<b>5.5</b>	1.0
cis-1,3-Dichloropropene		<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40
Dibromochloromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dibromomethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dichlorodifluoromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Ethyl Benzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Hexachlorobutadiene	0.5	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50
Isopropylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
m/p-Xylenes	5	<1.0	1.0	<b>0.54</b>	1.0	<1.0	1.0	<1.0	1.0
Methyl ethyl ketone		<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5
Methyl tert-butyl Ether	10	<b>0.38</b>	1.0	<1.0	1.0	<1.0	1.0	<b>0.39</b>	1.0
Methylene Chloride	5	<3.0	3.0	<3.0	3.0	<3.0	3.0	<3.0	3.0
Naphthalene	10	<1.0	1.0	<b>1.5</b>	1.0	<1.0	1.0	<1.0	1.0
n-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
n-Propylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
o-Xylene	5	<1.0	1.0	<b>0.36</b>	1.0	<1.0	1.0	<1.0	1.0
p-Isopropyltoluene		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
sec-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Styrene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
tert-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Tetrachloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Tetrahydrofuran (THF)		<5.0	5.0	<b>7</b>	5.0	<5.0	5.0	<5.0	5.0
Toluene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
trans-1,2-Dichloroethene	5	<b>2.10</b>	5.0	<b>0.37</b>	5.0	<b>0.64</b>	5.0	<b>2</b>	5.0
trans-1,3-Dichloropropene	0.4	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40
trans-1,4-dichloro-2-butene	5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5
Trichloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Trichlorofluoromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Trichlorotrifluoroethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Vinyl Chloride	2	<b>17</b>	1.0	<b>27</b>	1.0	<b>18</b>	1.0	<b>18</b>	1.0
Total Chlorinated VOC		<b>24.79</b>		<b>33.27</b>		<b>28.04</b>		<b>25.50</b>	
Total Petroleum VOC		<b>1.70</b>		<b>2.40</b>		<b>0.60</b>		<b>1.60</b>	
Total VOCs		<b>26.87</b>		<b>42.67</b>		<b>28.64</b>		<b>27.80</b>	

Notes:
RL - Reporting Limit
<b>Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard</b>

**TABLE 2A**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW1**

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1																	
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
1,1-Dichloroethene	5	<b>8.2</b>	5.0	<b>1.1</b>	1.0	<b>0.78</b>	1.0	<1.0	1.0	<b>1.4</b>	5.0	<b>0.58</b>	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1-Dichloropropene		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,2,3-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<0.25	0.25
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<1.3	1.3	<0.25	0.25	<0.25	0.25	<0.25	0.25	<1.0	1.0
1,2,4-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.29	0.29	<1.0	1.0
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.50	0.50	<0.50	0.50
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<0.50	0.50	<2.5	2.5	<0.50	0.50	<0.50	0.50	<0.25	0.25	<0.25	0.25
1,2-Dibromoethane		<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<1.3	1.3	<0.25	0.25	<0.25	0.25	<0.25	0.25	<1.0	1.0
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<4.7	4.7	<1.0	1.0	<1.0	1.0	<1.0	1.0	<0.60	0.60	<0.60	0.60
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.60	0.60	<0.60	0.60	<0.60	0.60	<1.0	1.0	<1.0	1.0
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<b>4</b>	1.0	<3.0	3.0	<1.0	1.0	<1.0	1.0	<b>0.35</b>	1.0	<1.0	1.0
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<2.5	2.5	<2.5	2.5
2-Hexanone (Methyl Butyl Ketone)		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<5.0	5.0	<5.0	5.0
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0
4-Methyl-2-Pentanone		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5
Acetone		<50	50	<b>3.5</b>	5.0	<b>4.3</b>	5.0	<5.0	5.0	<25	25	<b>5.7</b>	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Acrolein		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Acrylonitrile	5	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Benzene	1	<5.0	5.0	1.1	0.79	<b>0.84</b>	0.70	<b>0.25</b>	0.70	<1.3	1.3	<b>0.56</b>	0.70	<b>1.1</b>	0.70	<b>1.8</b>	0.70	<b>1.70</b>	0.70
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromodichloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromoform		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<25	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<b>0.29</b>	5.0	<5.0	5.0	<5.0	5.0
Chloroform	7	<7.0	7.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloromethane	60	<5.0	5.0	<5.0	5.0	<b>0.74</b>	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
cis-1,2-Dichloroethene	5	<b>6,000</b>	400	<b>300</b>	20	<b>230</b>	10	<b>51</b>	5.0	<b>690</b>	13	<b>300</b>	20	<b>76</b>	10	<b>17</b>	1.0	<b>5.40</b>	1.0
cis-1,3-Dichloropropene		<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<1.3	1.3	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40
Dibromochloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Hexachlorobutadiene	0.5	<5.0	5.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<1.0	1.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
m,p-Xylenes	5	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Methyl Ethyl Ketone (2-Butanone)	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<b>0.38</b>	1.0	<b>0.5</b>	1.0	<b>0.38</b>	1.0
Methylene chloride	5	<20	20	<3.0	3.0	<3.0	3.0	<3.0	3.0	<5.0	5.0	<3.0	3.0	<3.0	3.0	<3.0	3.0	<3.0	3.0
Naphthalene	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
n-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0									

**TABLE 2B**  
 34-11 Beach Channel Drive Site  
 34-11 Beach Channel Drive, Far Rockaway, New York  
 Groundwater Analytical Results  
 Volatile Organic Compounds  
 15MW2

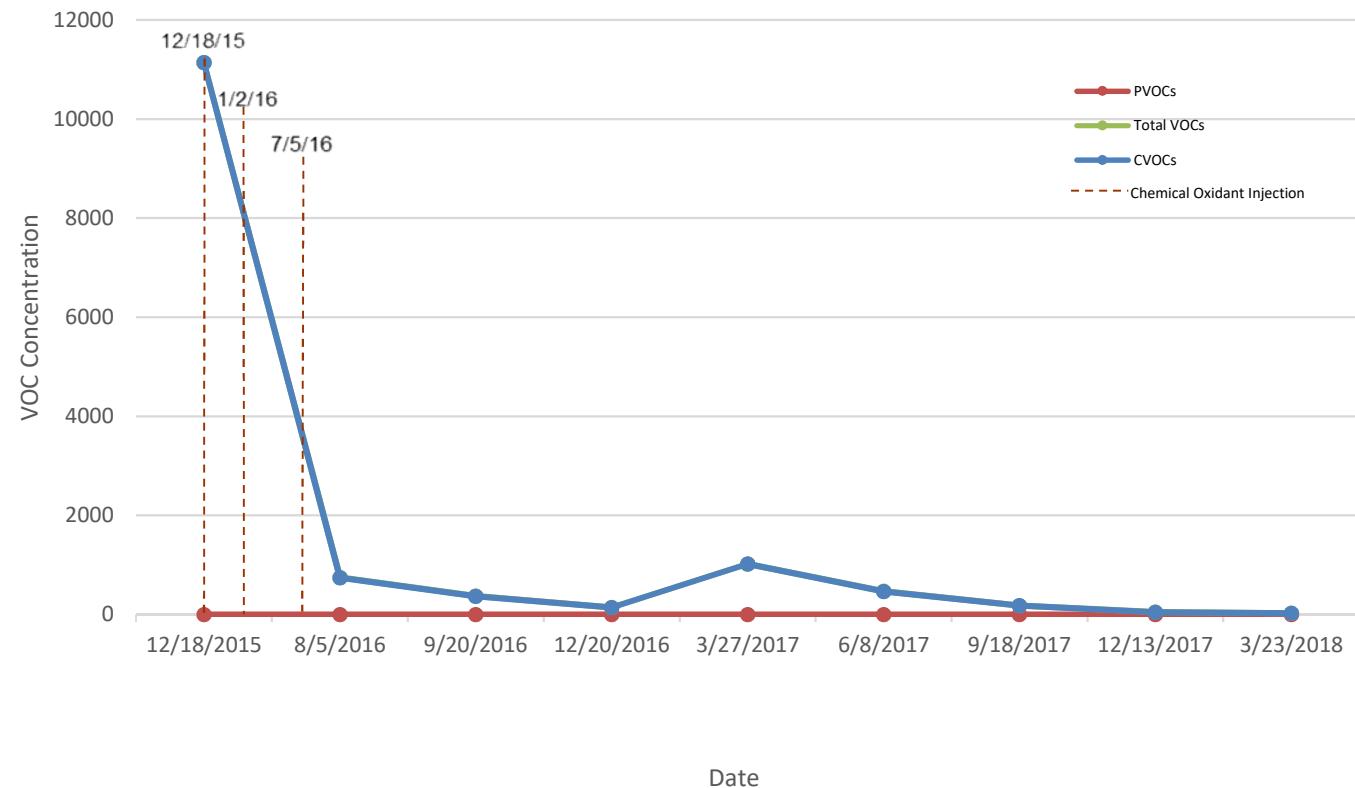
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW2																	
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.3	1.3	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0		
1,1-Dichloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0		
1,1-Dichloropropene		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,2,3-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<1.0	1.0	<0.25	0.25		
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<0.25	0.25	<5.0	5.0	<1.3	1.3	<0.25	0.25		
1,2,4-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<1.0	1.0	<1.0	1.0		
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<0.50	0.50		
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<0.50	0.50	<0.50	0.50	<10	10	<2.5	2.5	<0.50	0.50		
1,2-Dibromoethane		<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<0.25	0.25	<5.0	5.0	<1.3	1.3	<0.25	0.25		
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<4.7	4.7	<1.0	1.0		
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<0.60	0.60	<10	10	<2.5	2.5	<0.80	0.80	<1.0	1.0		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.3	1.3	<1.0	1.0		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<b>4.40</b>	1.0	<1.0	1.0	<5.0	5.0	<3.0	3.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<5.0	5.0		
1,4-Dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<2.5	2.5		
2-Hexanone (Methyl Butyl Ketone)		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5		
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<5.0	5.0		
4-Methyl-Pentanone		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5		
Acetone		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<b>17.00</b>	25	<b>16</b>	5.0		
Acrolein		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<13	13	<5.0	5.0		
Acrylonitrile	5	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<13	13	<5.0	5.0		
Benzene	1	<5.0	5.0	1.10	0.70	<b>0.80</b>	0.70	<b>0.77</b>	7.0	<b>0.74</b>	7.0	<5.1	5.0	<1.3	1.3	<b>0.38</b>	0.70		
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Bromochloromethane		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Bromodichloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0		
Bromoform		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<25	25	<5.0	5.0		
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<7.0	7.0	<5.0	5.0		
Chloromethane	60	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	<b>1400</b>	5.0	<b>25</b>	1.0	<b>18</b>	1.0	<b>10</b>	5.0	<b>5.50</b>	1.0	<b>12</b>	20	<b>440</b>	20	<b>25</b>	<b>5.9</b>		
cis-1,3-Dichloropropene		<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<5.0	5.0	<1.3	1.3	<0.40	0.40	<0.40	0.40		
Dibromochloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0		
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<b>4600</b>	400	<5.0	5.0	<1.0	1.0		
Hexachlorobutadiene	0.5	<5.0	5.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	<4.0	4.0	<1.0	1.0	<0.50	0.50		
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<b>28</b>	20	<5.0	5.0	<1.0	1.0		
m&p-Xylenes	5	<20	20	<1.0	1.0	<1.0	1.0	0.26	1.0	<1.0	1.0	<b>28,000</b>	400	<5.0	5.0	<b>0.39</b>	1.0		
Methyl Ethyl Ketone (2-Butanone)		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<b>3</b>	2.5		
Methyl t-butyl ether (MTBE)	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0		
Methylene chloride	5	<20	20	<3.0	3.0	<3.0	3.0	<3.0	3.0	<3.0	3.0	<20	20	<5.0	5.0	<3.0	3.0		
Naphthalene	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0		
n-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
n-Propylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
o-Xylene	5	<5.0	5.0	<b>0.86</b>	1.0	<b>0.71</b>	1.0	<b>0.95</b>	1.0	<1.0	1.0	<b>10,000</b>	400	<5.0	5.0	<b>0.34</b>	1.0		
p-Isopropyltoluene		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0		
sec-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
Styrene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
tert-Butylbenzene	5	<5.0	5.0	<1.0															

**TABLE 2C**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW3**

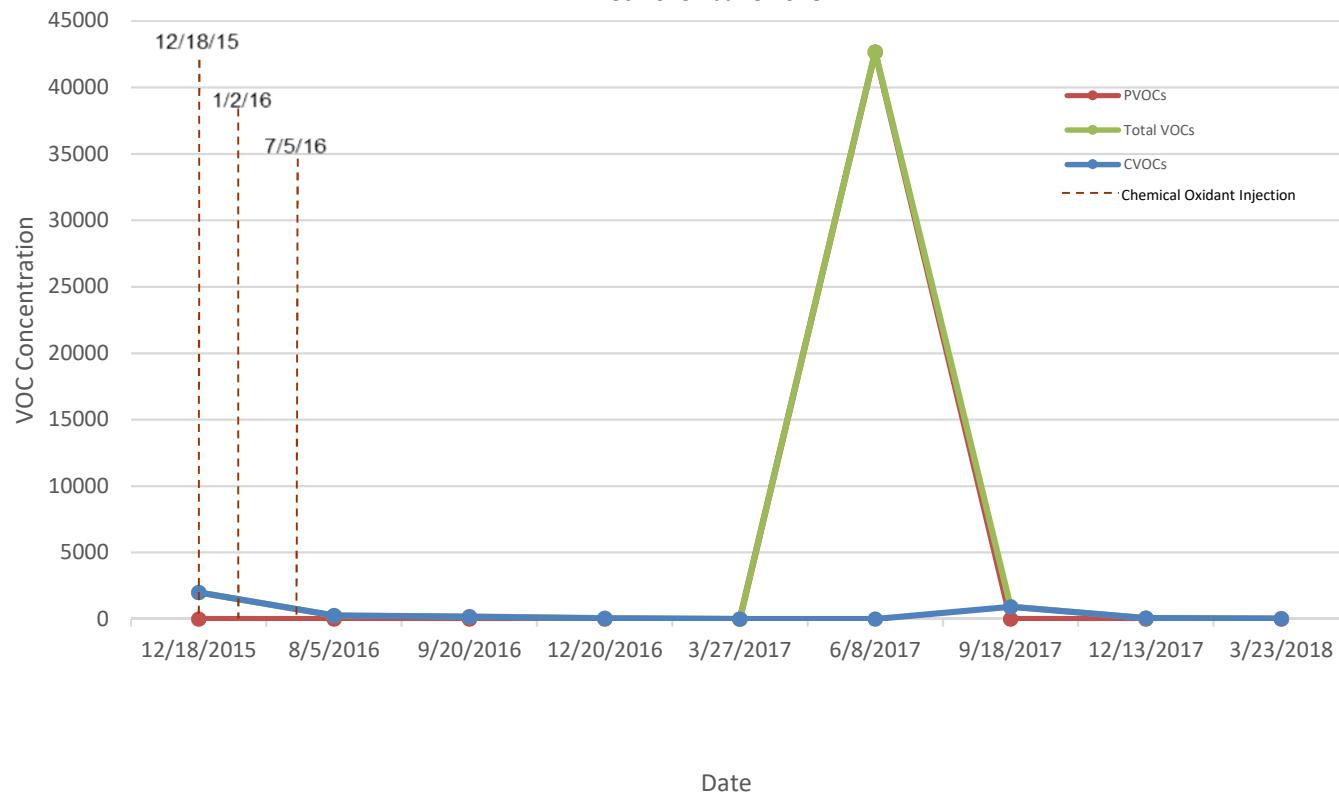
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW3																	
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0		
1,1-Dichloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.1	5.0	110	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,1-Dichloropropene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,2,3-Trichlorobenzene	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<2.5	2.5		
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<0.25	0.25	<0.25	0.25		
1,2,4-Trichlorobenzene	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0		
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	0.32	1.0	<1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<10	10	<10	10	-	-	<0.50	0.50	<0.50	0.50		
1,2-Dibromoethane	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<0.25	0.25	<0.25	0.25		
1,2-Dichlorobenzene	5	<4.0	4.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<0.60	0.60		
1,2-Dichloroethane	0.6	<3.0	3.0	<0.60	0.60	<0.60	0.60	<10	10	<10	10	-	-	<0.60	0.60	<0.60	0.60		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<3.0	3.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
1,4-Dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<2.5	2.5		
2-Hexanone (Methyl Butyl Ketone)	-	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50	-	-	<2.5	2.5	<2.5	2.5		
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
4-Methyl-2-Pentanone	-	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50	-	-	<2.5	2.5	<2.5	2.5		
Acetone	-	15	25	<5.0	5.0	2.7	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Acrolein	-	<13	13	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Acrylonitrile	5	<13	13	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Benzene	1	7.5	3.0	0.49	0.70	0.75	0.70	5.0	5.0	<5.0	5.0	-	-	2.2	0.70	1.1	0.6		
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Bromodichloromethane	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0		
Bromoform	-	<25	25	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	2.3	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	0.29	1.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Chloroethane	5	20	25	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Chloroform	7	<5.0	5.0	<5.0	5.0	<7.0	7.0	<7.0	7.0	<7.0	7.0	-	-	<5.0	5.0	<5.0	5.0		
Chloromethane	60	<5.0	5.0	0.3	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	-	-	0.41	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	430	20	72	10	24	1.0	11,000	100	21,000	250	-	-	29	20	26	1.0		
cis-1,3-Dichloropropene	-	<2.0	2.0	<0.40	0.40	<0.40	0.40	5.0	5.0	<5.0	5.0	-	-	<0.40	0.40	<0.40	0.40		
Dibromochloromethane	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0		
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	0.3	1.0	<1.0	1.0		
Hexachlorobutadiene	0.5	<2.5	2.5	<0.50	0.50	<0.50	0.50	<4.0	4.0	<4.0	4.0	-	-	<0.50	0.50	<0.50	0.50		
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	0.27	1.0	<1.0	1.0		
m,p-Xylene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	0.33	1.0	<1.0	1.0		
Methyl Ethyl Ketone (2-Butanone)	-	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50	-	-	<2.5	2.5	<2.5	2.5		
Methyl t-butyl ether (MTBE)	10	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0		
Methylene chloride	5	<5.0	5.0	<3.0	3.0	<3.0	3.0	<20	20	<20	20	-	-	<3.0	3.0	<3.0	3.0		
Naphthalene	10	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	1.7	1.0	<1.0	1.0		
n-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
n-Propylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
o-Xylene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	0.34	1.0	<1.0	1.0		
p-Isopropyltoluene	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
sec-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Styrene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
tert-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Tetrachloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
Tetrahydrofuran (THF)	-	<25	25	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0		
Toluene	5	2.5	5.0	<1.0	1.0	<1.0	1.0	5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0		
trans-1,2-Dichloroethene	5	11	25	1	5.0	0.96	5.0	26	5.0										

## **GRAPHS**

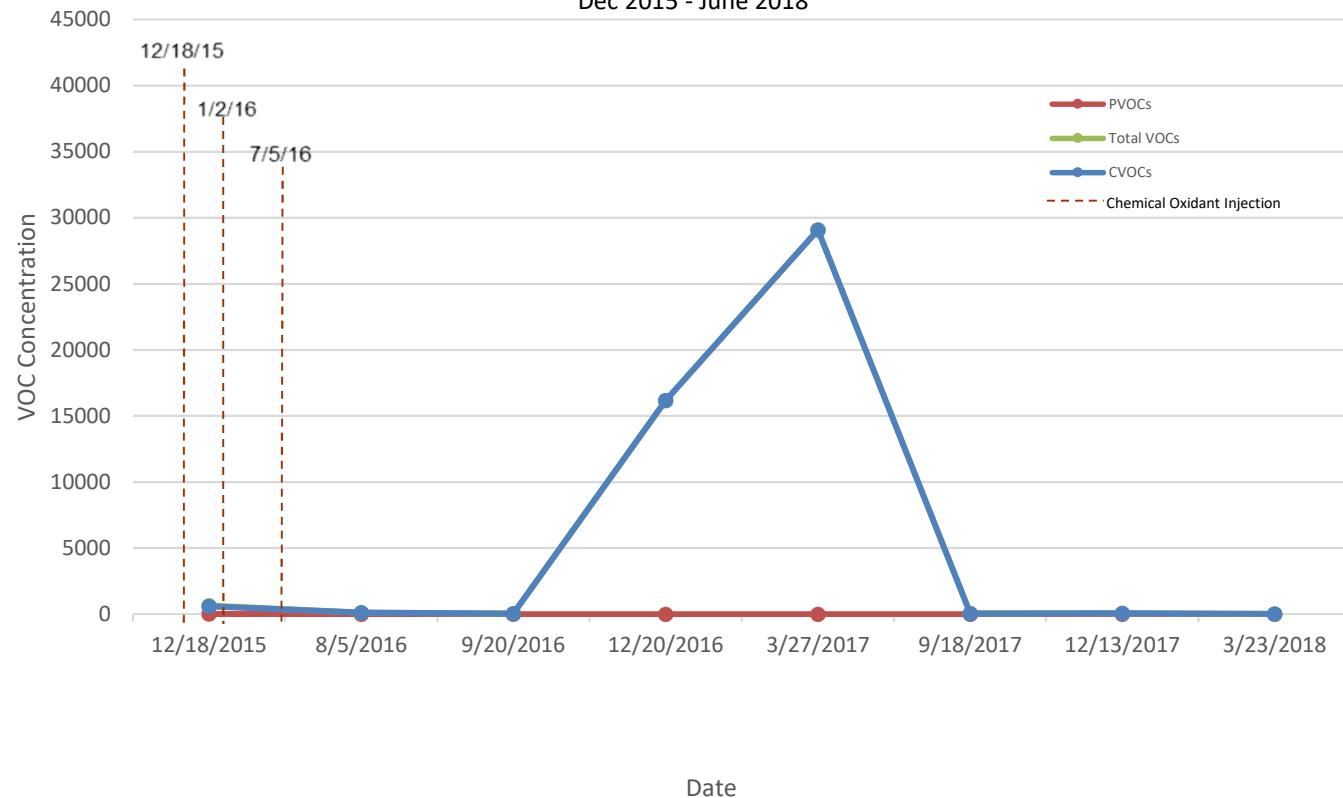
Graph 1  
15MW1 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018



Graph 2  
15MW2 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018



Graph 3  
15MW3 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018

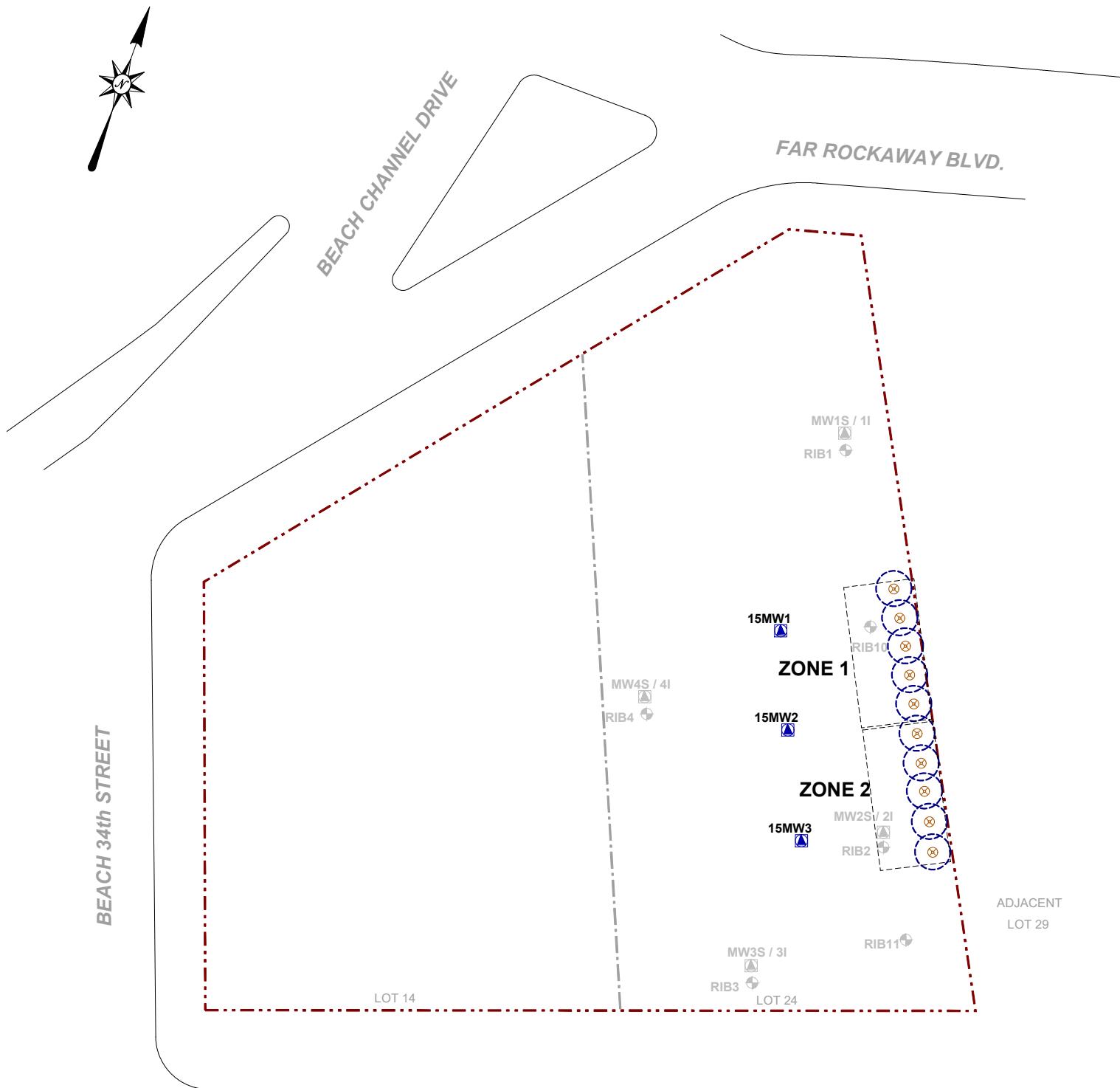


## **FIGURES**

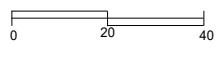


**ENVIRONMENTAL BUSINESS CONSULTANTS**

1808 MIDDLE COUNTRY ROAD | PHONE 631.504.6000  
RIDGE, NY 11961 | FAX 631.924.2870



**SCALE**



1 inch = 40 feet

**KEY**



Site Boundary



MW<sub>x</sub> RI Monitoring Well



RIB<sub>x</sub> RI Soil Boring

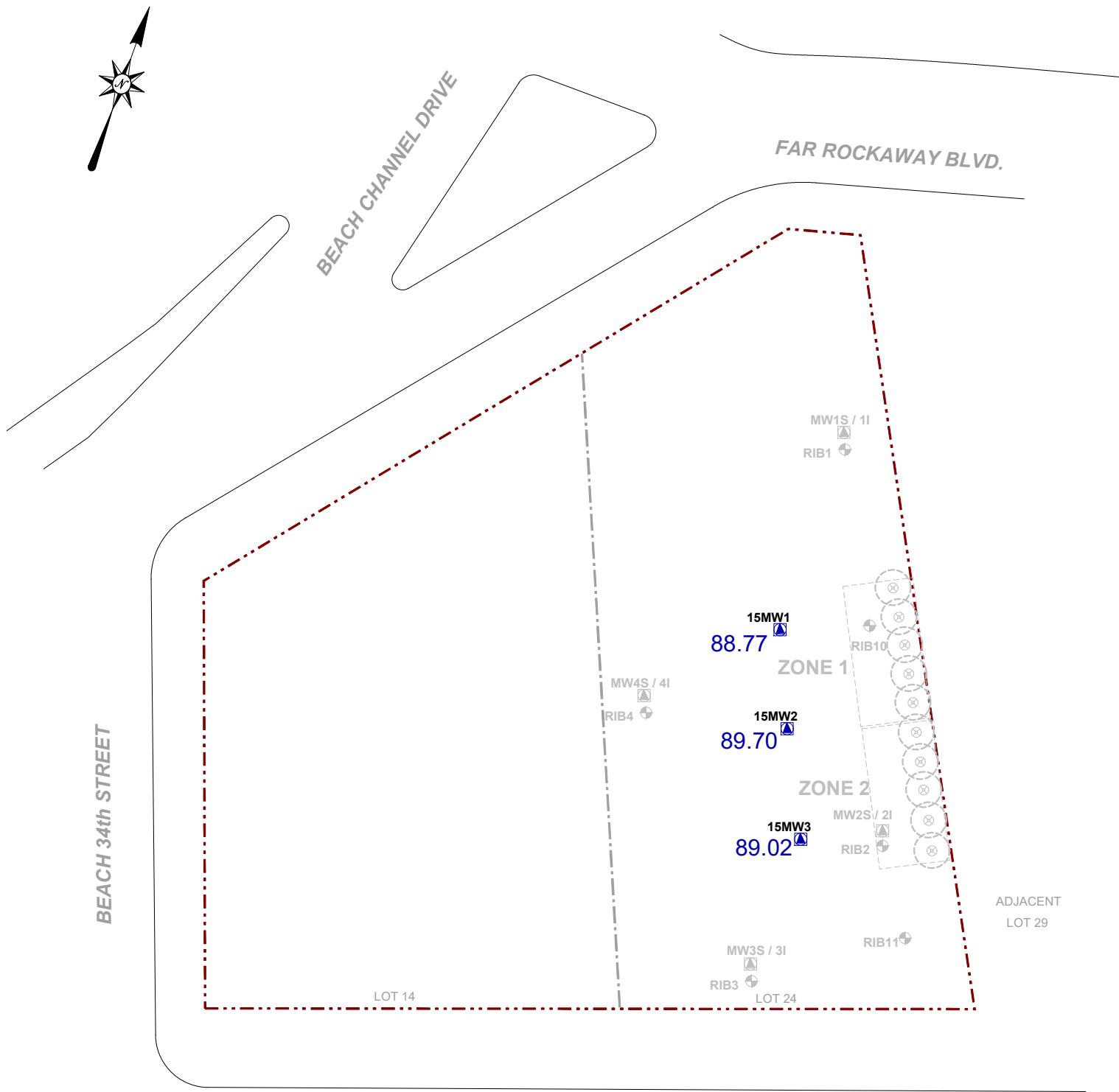


15MW<sub>x</sub> ISCO Performance Monitoring Well

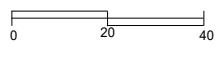


ROI (5 ft) Oxidant Injection Location

**ROCKAWAY FREEWAY**



SCALE



1 inch = 40 feet

KEY



Site Boundary



RI Monitoring Well



RI Soil Boring



ISCO Performance Monitoring Well



ROI (5 ft)



Oxidant Injection Location

ROCKAWAY FREEWAY



LEGEND:

- SHALLOW WELLS WITH GROUNDWATER RELATIVE ELEVATION (FEET)
  - MW-1S (15.86)
- ← GROUNDWATER FLOW DIRECTION
- 16.0 — WATER TABLE CONTOURS (WESTERN WELLS)
- - - 16.5 - - - WATER TABLE CONTOURS (EASTERN WELLS)

FPM GROUP

FIGURE 3  
JANUARY 2015  
SHALLOW GROUNDWATER  
RELATIVE ELEVATION CONTOURS

34-11 BEACH CHANNEL DRIVE SITE  
FAR ROCKAWAY, QUEENS, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date 2/9/2015
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## **APPENDIX A**

### **WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORMS**



ENVIRONMENTAL BUSINESS CONSULTANTS

GROUNDWATER PURGE/SAMPLE LOGS

34-11 Beach Channel Drive

Well I.D.: ISW

Well Depth (from TOC):

Static Water Level (from TOC):

### Height of Water in Well:

### Gallons of Water per Well Volume:

Flow Rate:

Flow Rate: 400m/min.

Date: 2/23/18

Equipment: Noriba, Peristaltic Pump

Note 400 ml = 0.11 gallons



GROUNDWATER PURGE / SAMPLE LOGS

34-11 Beach Channel Drive

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15W02

Date: 3/23/18

Well Depth (from TOC):

Static Water Level (from TGC):

Right of Water III Well.

### Gallons of Water per Well Volume:

卷之三

卷之三



ENVIRONMENTAL BUSINESS CONSULTANTS

## GROUNDWATER PURGE / SAMPLE LOGS

34-11 Beach Channel Drive

Well I.D.: 15μW3

Well Depth (from TOC):

### Static Water Level (from TOC);

### Height of Water in Well:

### Gallons of Water per Well Volume: v 3

Flow Rate:  
400mL/min.

Date: 3/23/18

Equipment: Hariba & peristaltic Pump

Note 400 ml = 0.11 gallons

## **APPENDIX B**

### **Laboratory Reports**



**ENVIRONMENTAL BUSINESS CONSULTANTS**

1808 MIDDLE COUNTRY ROAD | PHONE 631.504.6000  
RIDGE, NY 11961 | FAX 631.924.2870



Monday, April 09, 2018

Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

Project ID: 34-11 BEACH CHANNEL DR  
Sample ID#s: CA08682 - CA08686

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



**Environmental Laboratories, Inc.**

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102      Fax (860) 645-0823

**NY ANALYTICAL SERVICES PROTOCOL  
DATA PACKAGE**

**Client: Environmental Business Consultants**

**Project: 34-11 BEACH CHANNEL DR**

**Laboratory Project: GCA08682**



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
Tel. (860) 645-1102 Fax (860) 645-0823



## **NY Analytical Services Protocol Format**

April 09, 2018

SDG I.D.: GCA08682

Environmental Business Consultants 34-11 BEACH CHANNEL DR

### **Methodology Summary**

#### **Volatile Organic Compounds:**

USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods 3rd Ed. Update III, Method 8260C and Environmental Protection Agency, EPA-600/4-79-020, Revised March 1983 (Methods 624) as printed in 40CFR part 136.

### **Sample Id Cross Reference**

<b>Client Id</b>	<b>Lab Id</b>	<b>Matrix</b>
15 MW 1	CA08682	GROUND WATER
15 MW 2	CA08683	GROUND WATER
15 MW 3	CA08684	GROUND WATER
GW DUPLICATE	CA08685	GROUND WATER
TRIP BLANK	CA08686	GROUND WATER



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040  
Tel. (860) 645-1102 Fax (860) 645-0823



## NY Analytical Services Protocol Format

April 09, 2018

SDG I.D.: GCA08682

Environmental Business Consultants 34-11 BEACH CHANNEL DR

### Laboratory Chronicle

The samples in this delivery group were received at 3.5°C.

Sample	Analysis	Collection Date	Prep Date	Analysis Date	Analyst	Hold Time Met
CA08682	1,4-dioxane	03/23/18	03/27/18	03/27/18	MH	Y
CA08682	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08682	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08683	1,4-dioxane	03/23/18	03/27/18	03/27/18	MH	Y
CA08683	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08683	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08684	1,4-dioxane	03/23/18	03/27/18	03/27/18	MH	Y
CA08684	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08684	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08685	1,4-dioxane	03/23/18	03/27/18	03/27/18	MH	Y
CA08685	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08685	Volatiles	03/23/18	03/27/18	03/27/18	MH	Y
CA08686	1,4-dioxane	03/23/18	03/26/18	03/26/18	MH	Y
CA08686	Volatiles	03/23/18	03/26/18	03/26/18	MH	Y
CA08686	Volatiles	03/23/18	03/26/18	03/26/18	MH	Y



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## SDG Comments

April 09, 2018

SDG I.D.: GCA08682

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### 8260 Volatile Organics:

1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/ECD method 504 or 8011 to achieve this criteria.

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 09, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: ML  
Received by: SW  
Analyzed by: see "By" below

Date

03/23/18  
03/26/18 16:10

Time

Project ID: 34-11 BEACH CHANNEL DR  
Client ID: 15 MW 1

### Laboratory Data

SDG ID: GCA08682

Phoenix ID: CA08682

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2,4-Trimethylbenzene	0.29	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	03/27/18	MH	SW8260C	
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	03/27/18	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
2-Hexanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
2-Isopropyltoluene	0.27	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Benzene	1.7	0.70	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,2-Dichloroethene	5.4	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	03/27/18	MH	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	0.38	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
Naphthalene	ND	1.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,2-Dichloroethene	2.1	J	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Vinyl chloride	17	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	102			%	1	03/27/18	MH	70 - 130 %	
% Bromofluorobenzene	89			%	1	03/27/18	MH	70 - 130 %	
% Dibromofluoromethane	111			%	1	03/27/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	92			%	1	03/27/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	03/27/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	03/27/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

April 09, 2018

Reviewed and Released by: Jon Carlson, Project Manager



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 09, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: ML  
Received by: SW  
Analyzed by: see "By" below

Date

03/23/18  
03/26/18 16:10

Time

Project ID: 34-11 BEACH CHANNEL DR  
Client ID: 15 MW 2

### Laboratory Data

SDG ID: GCA08682

Phoenix ID: CA08683

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Benzene	ND	0.70	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,2-Dichloroethene	5.9	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	03/27/18	MH	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
m&p-Xylene	0.54	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Methylene chloride	ND	3.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
Naphthalene	1.5	1.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
o-Xylene	0.36	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrahydrofuran (THF)	7.0	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,2-Dichloroethene	0.37	J	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Vinyl chloride	27	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	102			%	1	03/27/18	MH	70 - 130 %	
% Bromofluorobenzene	87			%	1	03/27/18	MH	70 - 130 %	
% Dibromofluoromethane	113			%	1	03/27/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	91			%	1	03/27/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	03/27/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	03/27/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

April 09, 2018

Reviewed and Released by: Jon Carlson, Project Manager



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 09, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: ML  
Received by: SW  
Analyzed by: see "By" below

Date

03/23/18  
03/26/18 16:10

Time

Project ID: 34-11 BEACH CHANNEL DR  
Client ID: 15 MW 3

### Laboratory Data

SDG ID: GCA08682

Phoenix ID: CA08684

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Benzene	0.60	J 0.70	0.25	ug/L	1	03/27/18	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Bromodichloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Bromoform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Bromomethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Carbon Disulfide	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Chlorobenzene	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Chloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Chloroform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Chloromethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
cis-1,2-Dichloroethene	9.4	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C
Dibromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	03/27/18	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	03/27/18	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	03/27/18	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,2-Dichloroethene	0.64	J 5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Vinyl chloride	18	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	101			%	1	03/27/18	MH	70 - 130 %
% Bromofluorobenzene	86			%	1	03/27/18	MH	70 - 130 %
% Dibromofluoromethane	106			%	1	03/27/18	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	92			%	1	03/27/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	03/27/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	03/27/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

April 09, 2018

Reviewed and Released by: Jon Carlson, Project Manager



## Environmental Laboratories, Inc.

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Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 09, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: ML  
Received by: SW  
Analyzed by: see "By" below

Date

03/23/18  
03/26/18 16:10

Time

SDG ID: GCA08682

Phoenix ID: CA08685

Project ID: 34-11 BEACH CHANNEL DR  
Client ID: GW DUPLICATE

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	03/27/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Benzene	1.6	0.70	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Carbon Disulfide	0.31	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,2-Dichloroethene	5.5	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	03/27/18	MH	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	0.39	J	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
Naphthalene	ND	1.0	1.0	ug/L	1	03/27/18	MH	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,2-Dichloroethene	2.0	J	5.0	0.25	ug/L	1	03/27/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/27/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	03/27/18	MH	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
Vinyl chloride	18	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	102			%	1	03/27/18	MH	70 - 130 %	
% Bromofluorobenzene	87			%	1	03/27/18	MH	70 - 130 %	
% Dibromofluoromethane	112			%	1	03/27/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	92			%	1	03/27/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	03/27/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/27/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/27/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	03/27/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

April 09, 2018

Reviewed and Released by: Jon Carlson, Project Manager



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

April 09, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: ML  
Received by: SW  
Analyzed by: see "By" below

Date

03/23/18  
03/26/18 16:10

Time

Project ID: 34-11 BEACH CHANNEL DR  
Client ID: TRIP BLANK

### Laboratory Data

SDG ID: GCA08682

Phoenix ID: CA08686

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	03/26/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	03/26/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	03/26/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	03/26/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	03/26/18	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Bromodichloromethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Bromoform	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Bromomethane	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Carbon Disulfide	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Chlorobenzene	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Chloroethane	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Chloroform	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Chloromethane	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/26/18	MH	SW8260C
Dibromochloromethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	03/26/18	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	03/26/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	03/26/18	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	03/26/18	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	5.0	0.25	ug/L	1	03/26/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	03/26/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	03/26/18	MH	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	102			%	1	03/26/18	MH	70 - 130 %
% Bromofluorobenzene	89			%	1	03/26/18	MH	70 - 130 %
% Dibromofluoromethane	114			%	1	03/26/18	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	93			%	1	03/26/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	03/26/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	03/26/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	03/26/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	03/26/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

TRIP BLANK INCLUDED.

#### Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

April 09, 2018

Reviewed and Released by: Jon Carlson, Project Manager



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# QA/QC Report

April 09, 2018

## QA/QC Data

SDG I.D.: GCA08682

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 424238 (ug/L), QC Sample No: CA08679 (CA08682, CA08683, CA08684, CA08685)										
<b>Volatiles - Ground Water</b>										
1,1,1,2-Tetrachloroethane	ND	1.0	87	91	4.5				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	82	82	0.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	88	93	5.5				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	80	86	7.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	81	82	1.2				70 - 130	30
1,1-Dichloroethene	ND	1.0	82	81	1.2				70 - 130	30
1,1-Dichloropropene	ND	1.0	83	83	0.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	80	95	17.1				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	80	83	3.7				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	87	95	8.8				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	88	85	3.5				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	90	89	1.1				70 - 130	30
1,2-Dibromoethane	ND	1.0	86	91	5.6				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	90	92	2.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	83	87	4.7				70 - 130	30
1,2-Dichloropropane	ND	1.0	79	83	4.9				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	86	83	3.6				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	86	86	0.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	84	91	8.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	89	89	0.0				70 - 130	30
1,4-dioxane	ND	100	97	104	7.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	90	90	0.0				70 - 130	30
2-Chlorotoluene	ND	1.0	85	83	2.4				70 - 130	30
2-Hexanone	ND	5.0	80	90	11.8				70 - 130	30
2-Isopropyltoluene	ND	1.0	94	90	4.3				70 - 130	30
4-Chlorotoluene	ND	1.0	87	84	3.5				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	79	88	10.8				70 - 130	30
Acetone	ND	5.0	71	80	11.9				70 - 130	30
Acrolein	ND	5.0	85	98	14.2				70 - 130	30
Acrylonitrile	ND	5.0	88	98	10.8				70 - 130	30
Benzene	ND	0.70	82	82	0.0				70 - 130	30
Bromobenzene	ND	1.0	87	86	1.2				70 - 130	30
Bromochloromethane	ND	1.0	74	81	9.0				70 - 130	30
Bromodichloromethane	ND	0.50	83	87	4.7				70 - 130	30
Bromoform	ND	1.0	87	92	5.6				70 - 130	30
Bromomethane	ND	1.0	97	92	5.3				70 - 130	30
Carbon Disulfide	ND	1.0	88	86	2.3				70 - 130	30
Carbon tetrachloride	ND	1.0	82	82	0.0				70 - 130	30
Chlorobenzene	ND	1.0	88	88	0.0				70 - 130	30
Chloroethane	ND	1.0	89	89	0.0				70 - 130	30
Chloroform	ND	1.0	80	85	6.1				70 - 130	30

## QA/QC Data

SDG I.D.: GCA08682

Parameter	Blank	Blk RL	LCS	LCSD	LCS	MS	MSD	MS	% Rec Limits	% RPD Limits
			%	%	RPD	%	RPD			
Chloromethane	ND	1.0	85	83	2.4				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	81	82	1.2				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	83	88	5.8				70 - 130	30
Dibromochloromethane	ND	0.50	89	95	6.5				70 - 130	30
Dibromomethane	ND	1.0	80	85	6.1				70 - 130	30
Dichlorodifluoromethane	ND	1.0	95	96	1.0				70 - 130	30
Ethylbenzene	ND	1.0	88	86	2.3				70 - 130	30
Hexachlorobutadiene	ND	0.40	96	89	7.6				70 - 130	30
Isopropylbenzene	ND	1.0	87	84	3.5				70 - 130	30
m&p-Xylene	ND	1.0	81	79	2.5				70 - 130	30
Methyl ethyl ketone	ND	5.0	73	84	14.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	87	94	7.7				70 - 130	30
Methylene chloride	ND	1.0	79	83	4.9				70 - 130	30
Naphthalene	ND	1.0	90	100	10.5				70 - 130	30
n-Butylbenzene	ND	1.0	90	86	4.5				70 - 130	30
n-Propylbenzene	ND	1.0	88	83	5.8				70 - 130	30
o-Xylene	ND	1.0	85	85	0.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	89	84	5.8				70 - 130	30
sec-Butylbenzene	ND	1.0	90	85	5.7				70 - 130	30
Styrene	ND	1.0	86	87	1.2				70 - 130	30
tert-butyl alcohol	ND	10	102	104	1.9				70 - 130	30
tert-Butylbenzene	ND	1.0	86	83	3.6				70 - 130	30
Tetrachloroethene	ND	1.0	82	82	0.0				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	77	89	14.5				70 - 130	30
Toluene	ND	1.0	83	83	0.0				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	83	83	0.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	82	87	5.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	103	109	5.7				70 - 130	30
Trichloroethene	ND	1.0	83	83	0.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	87	87	0.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	100	98	2.0				70 - 130	30
Vinyl chloride	ND	1.0	85	84	1.2				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	101	100	1.0				70 - 130	30
% Bromofluorobenzene	86	%	96	97	1.0				70 - 130	30
% Dibromofluoromethane	106	%	93	100	7.3				70 - 130	30
% Toluene-d8	92	%	99	99	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 424103 (ug/L), QC Sample No: CA08681 (CA08686)

### Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	91	95	4.3				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	91	95	4.3				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	92	96	4.3				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	84	84	0.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	87	89	2.3				70 - 130	30
1,1-Dichloroethene	ND	1.0	92	93	1.1				70 - 130	30
1,1-Dichloropropene	ND	1.0	93	94	1.1				70 - 130	30
1,2,3-Trichlorobenzene	0.26 J	1.0	87	89	2.3				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	82	86	4.8				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	92	98	6.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	92	93	1.1				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	93	101	8.2				70 - 130	30

QA/QC Data

SDG I.D.: GCA08682

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dibromoethane	ND	1.0	91	93	2.2				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	91	94	3.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	89	92	3.3				70 - 130	30
1,2-Dichloropropane	ND	1.0	86	87	1.2				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	90	92	2.2				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	89	90	1.1				70 - 130	30
1,3-Dichloropropane	ND	1.0	87	92	5.6				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	90	92	2.2				70 - 130	30
1,4-dioxane	ND	100	100	110	9.5				70 - 130	30
2,2-Dichloropropane	ND	1.0	95	97	2.1				70 - 130	30
2-Chlorotoluene	ND	1.0	89	88	1.1				70 - 130	30
2-Hexanone	ND	5.0	85	93	9.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	100	100	0.0				70 - 130	30
4-Chlorotoluene	ND	1.0	90	91	1.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	85	89	4.6				70 - 130	30
Acetone	ND	5.0	81	84	3.6				70 - 130	30
Acrolein	ND	5.0	90	102	12.5				70 - 130	30
Acrylonitrile	ND	5.0	96	102	6.1				70 - 130	30
Benzene	ND	0.70	87	88	1.1				70 - 130	30
Bromobenzene	ND	1.0	90	92	2.2				70 - 130	30
Bromochloromethane	ND	1.0	79	79	0.0				70 - 130	30
Bromodichloromethane	ND	0.50	90	91	1.1				70 - 130	30
Bromoform	ND	1.0	90	91	1.1				70 - 130	30
Bromomethane	ND	1.0	115	115	0.0				70 - 130	30
Carbon Disulfide	ND	1.0	98	100	2.0				70 - 130	30
Carbon tetrachloride	ND	1.0	93	96	3.2				70 - 130	30
Chlorobenzene	ND	1.0	89	91	2.2				70 - 130	30
Chloroethane	ND	1.0	98	102	4.0				70 - 130	30
Chloroform	ND	1.0	89	87	2.3				70 - 130	30
Chloromethane	ND	1.0	98	100	2.0				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	85	86	1.2				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	88	89	1.1				70 - 130	30
Dibromochloromethane	ND	0.50	94	100	6.2				70 - 130	30
Dibromomethane	ND	1.0	85	87	2.3				70 - 130	30
Dichlorodifluoromethane	ND	1.0	119	123	3.3				70 - 130	30
Ethylbenzene	ND	1.0	89	92	3.3				70 - 130	30
Hexachlorobutadiene	ND	0.40	100	99	1.0				70 - 130	30
Isopropylbenzene	ND	1.0	91	91	0.0				70 - 130	30
m&p-Xylene	ND	1.0	84	86	2.4				70 - 130	30
Methyl ethyl ketone	ND	5.0	83	81	2.4				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	92	98	6.3				70 - 130	30
Methylene chloride	ND	1.0	82	87	5.9				70 - 130	30
Naphthalene	ND	1.0	96	99	3.1				70 - 130	30
n-Butylbenzene	ND	1.0	95	95	0.0				70 - 130	30
n-Propylbenzene	ND	1.0	92	92	0.0				70 - 130	30
o-Xylene	ND	1.0	88	90	2.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	93	93	0.0				70 - 130	30
sec-Butylbenzene	ND	1.0	97	97	0.0				70 - 130	30
Styrene	ND	1.0	88	91	3.4				70 - 130	30
tert-butyl alcohol	ND	10	102	111	8.5				70 - 130	30
tert-Butylbenzene	ND	1.0	91	93	2.2				70 - 130	30
Tetrachloroethene	ND	1.0	87	88	1.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	81	86	6.0				70 - 130	30

QA/QC Data

SDG I.D.: GCA08682

Parameter	Blank	Blk	RL	LCS	LCSD	LCS	MS	MSD	MS	%	%
				%	%	RPD	%	RPD	Rec	RPD	
Toluene	ND	1.0		87	87	0.0			70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0		87	90	3.4			70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40		87	89	2.3			70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0		103	106	2.9			70 - 130	30	
Trichloroethene	ND	1.0		86	87	1.2			70 - 130	30	
Trichlorofluoromethane	ND	1.0		103	106	2.9			70 - 130	30	
Trichlorotrifluoroethane	ND	1.0		113	115	1.8			70 - 130	30	
Vinyl chloride	ND	1.0		99	102	3.0			70 - 130	30	
% 1,2-dichlorobenzene-d4	102	%		99	100	1.0			70 - 130	30	
% Bromofluorobenzene	90	%		99	101	2.0			70 - 130	30	
% Dibromofluoromethane	113	%		95	92	3.2			70 - 130	30	
% Toluene-d8	93	%		100	99	1.0			70 - 130	30	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director  
April 09, 2018

Monday, April 09, 2018

# Sample Criteria Exceedances Report

## GCA08682 - EBC

Criteria: NY: GW

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA08682	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.7	0.70	0.7	0.7	ug/L
CA08682	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	17	1.0	2	2	ug/L
CA08682	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	5.4	1.0	5	5	ug/L
CA08682	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA08682	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA08682	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA08682	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	17	1.0	2	2	ug/L
CA08682	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.7	0.70	1	1	ug/L
CA08682	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	17	1.0	2	2	ug/L
CA08682	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria (SPLP)	1.7	0.70	1	1	ug/L
CA08682	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA08682	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA08682	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA08682	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria (SPLP)	5.4	1.0	5	5	ug/L
CA08683	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	27	1.0	2	2	ug/L
CA08683	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	5.9	1.0	5	5	ug/L
CA08683	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA08683	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	27	1.0	2	2	ug/L
CA08683	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA08683	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA08683	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA08683	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA08683	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria (SPLP)	5.9	1.0	5	5	ug/L
CA08683	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	27	1.0	2	2	ug/L
CA08683	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA08684	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	18	1.0	2	2	ug/L
CA08684	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	18	1.0	2	2	ug/L
CA08684	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	9.4	1.0	5	5	ug/L
CA08684	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA08684	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA08684	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA08684	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA08684	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria (SPLP)	9.4	1.0	5	5	ug/L
CA08684	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	18	1.0	2	2	ug/L
CA08684	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA08684	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA08685	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.6	0.70	0.7	0.7	ug/L
CA08685	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	18	1.0	2	2	ug/L
CA08685	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	18	1.0	2	2	ug/L
CA08685	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	5.5	1.0	5	5	ug/L

Monday, April 09, 2018

Criteria: NY: GW

State: NY

# Sample Criteria Exceedances Report

## GCA08682 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA08685	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.6	0.70	1	1	ug/L
CA08685	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA08685	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA08685	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA08685	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA08685	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA08685	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA08685	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria (SPLP)	5.5	1.0	5	5	ug/L
CA08685	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	18	1.0	2	2	ug/L
CA08685	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria (SPLP)	1.6	0.70	1	1	ug/L
CA08686	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA08686	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA08686	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA08686	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA08686	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA08686	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## NY Temperature Narration

April 09, 2018

SDG I.D.: GCA08682

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The samples in this delivery group were received at 3.5°C.  
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



**ENVIRONMENTAL BUSINESS CONSULTANTS**

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August 20, 2018

Ms. Alicia A Barraza  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 2  
Division of Spill Prevention and Response Programs  
47-40 21<sup>st</sup> Street, Long Island City, New York 11101

**Re:    Quarterly Groundwater Sampling Report**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Queens, New York**  
**NYSDEC BCP Number: C241141**

Dear Ms. Barraza:

Please find the enclosed Quarterly Groundwater Sampling Report for the above referenced project for the first quarter of 2018. In accordance with the Site Management Plan (SMP), a round of groundwater sampling was performed on June 15, 2018 for 15MW1, 15MW2 and 15MW3.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Thomas Gallo  
Environmental Geologist

Kevin Waters  
Project Manager

Cc:    J. O'Connell, NYSDEC  
      A. Arker, Bedford Park Associates LLC  
      S. Arker, Bedford Park Associates LLC  
      C. Sosik, EBC  
      A. Czemerinski, AMC  
      J. Brooks, Phillips Nizer



**ENVIRONMENTAL BUSINESS CONSULTANTS**

1808 MIDDLE COUNTRY ROAD  
RIDGE, NY 11961

PHONE    631.504.6000  
FAX      631.924.2870

**34-11 BEACH CHANNEL DRIVE SITE**  
**NYSDEC BCP Number C241141**  
**Project Status Report**  
**2018**

**Reporting Summary**

<b>Report Date:</b>	August 20, 2018
<b>Reporting Period:</b>	2 <sup>nd</sup> Quarter of 2018
<b>Site Status:</b>	Building is under construction, currently working on interior
<b>Work Performed this Quarter:</b>	June 15, 2018 – Groundwater sampling events performed on the three on-site monitoring wells.
<b>Remediation Status:</b>	No chemical oxidant events were performed during this period. A chemical oxidant injection was last performed on December 18, 2015, January 2, 2016 and July 5, 2016.

**Monitoring Program Summary**

<b>No. of Wells:</b>	3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Gauging Frequency:</b>	Quarterly for the three monitoring wells.
<b>Sampling Frequency:</b>	Quarterly, 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Reporting Frequency:</b>	Groundwater Sampling Report (Quarterly).
<b>Groundwater Depth:</b>	5.5 ft (sidewalk grade)
<b>GW Flow Direction:</b>	Historically groundwater flow direction was to the west, but during the second quarter groundwater sampling event the groundwater flow direction was inconclusive
<b>Monitoring Results:</b>	No product was detected within any of the monitoring wells.
<b>Sampling Results:</b>	VOCs were detected above NYSDEC GQS in all three of the monitoring wells sampled during this round.

**OXIDANT INJECTIONS:**

No chemical oxidant injections were performed during this period. Chemical Oxidant Injections were last performed on July 5, 2016.

## LIQUID LEVEL MONITORING:

Depths to water readings were taken from the 3 monitoring wells with an electronic interface meter prior to purging the wells for sampling. As previously noted, no Liquid Phase Hydrocarbons (LPH) was detected in any of the monitoring wells or injections points during this quarter.

Groundwater elevation as, determined from the depth to water readings and casing elevation, was used to approximate groundwater contours and the groundwater flow direction for the site (**Figure 2**). Groundwater elevation details are provided in **Table 1**. Historically groundwater flow direction was to the west, but during the first quarter groundwater sampling event the groundwater flow direction was inconclusive (**Figure 3**).

## GROUNDWATER SAMPLING:

The 2Q18 groundwater sampling event was performed on June 15, 2018. The groundwater samples were collected from 15MW1, 15MW2 and I5MW3 in accordance with the low-flow groundwater sampling procedures outlined within the SMP. See (**Figure 1**) for the location of all site monitoring wells and chemical oxidant injection wells. A copy of each of the Well Purging-Field Water Quality Measurements Form is attached as (**Appendix A**). The groundwater samples were picked up by laboratory dispatched courier and delivered to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260.

Copies of the laboratory reports are attached as (**Appendix B**). The laboratory results are summarized and compared to their appropriate standards/criteria in (**Table 2**) and to previous sampling events in (**Table 2A-2C**).

## GROUNDWATER SAMPLING RESULTS:

15MW1 – Total VOC concentrations within 15MW1 have showed a decrease from 26.87 µg/L to 10.25 µg/L and CVOC concentrations have shown a decrease from 24.79 µg/L to 5.15 µg/L, since the 4Q17 sampling event.

15MW2 – Total VOC concentrations within 15MW2 have showed a decrease from 42.67 µg/L to 36.90 µg/L and CVOC concentrations have shown a decrease from 33.27 µg/L to 17.96 µg/L, since the 4Q17 sampling event.

15MW3 - Total VOC concentrations within 15MW3 have showed a decrease from 28.64 µg/L to 14.77 µg/L and CVOC concentrations have shown a decrease from 28.04 µg/L to 11.24 µg/L, since the 4Q17 sampling event.

## GROUNDWATER VOC CONCENTRATION TRENDS:

As depicted in the concentration graphs (**Graphs 1-3**), remedial efforts from 2015 through 2016 resulted in a significant reduction in CVOC concentrations in the current focus area as defined by wells 15MW1, 15MW2 and 15MW3. The total VOC concentration within 15MW1 decreased during this sampling event which followed an overall decreasing trend. The CVOC concentration within 15MW1 decreased during this sampling event, with Vinyl Chloride and cis-1,2-Dichloroethene now below NYSDEC GQS. The total VOC concentration within 15MW2 decreased during this sampling event which followed an overall decreasing trend, except for the 2Q17 sampling event which had an increase in Petroleum VOC concentrations. The CVOC concentration within 15MW2 decreased during this sampling event, with only Vinyl Chloride remaining above NYSDEC GQS. The total VOC concentration within 15MW3 decreased during this sampling event which followed an overall decreasing trend, except for the 4Q16 and 1Q17 sampling events which showed an increase in cis-1,2-Dichloroethene, Trichloroethene and Vinyl Chloride. The CVOC concentration within 15MW3 decreased during this sampling event, with Vinyl Chloride and cis-1,2-Dichloroethene remaining above NYSDEC GQS.

Prior to building construction on the site, groundwater flow maps indicated a general west-northwesterly flow direction from the site towards the intersection of Beach 34<sup>th</sup> Street and Beach Channel Drive. During this sampling event, the groundwater flow could not be determined due to the linear configuration of the monitoring wells (**Figure 2**).

#### FUTURE PLANS / RECOMMENDATIONS:

Remedial efforts at the Site have been successful in significantly reducing overall chlorinated VOCs in groundwater. Water quality is expected to continue to improve over time. The rebound of chlorinated VOCs that had been observed in 15MW3 during the 4Q16 and 1Q17 sampling has continued on a downward trend since the 1Q17 sampling event.

EBC therefore requests the termination of groundwater monitoring based on the low levels of VOC concentrations observed.

---

## **TABLES**

34-11 Beach Channel Drive Site  
34-11 Beach Chanel Drive, Far Rockaway, NY

Table 1  
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 6/15/2018	DTP	PT	GW ELV 6/15/2018
15MW1	1	30	15 to 30	5.25	94.75	6.28	-	-	88.47
15MW2	1	30	15 to 30	5.35	94.65	5.33	-	-	89.32
15MW3	1	30	15 to 30	5.37	94.63	6.16	-	-	88.47

**TABLE 2**  
 34-11 Beach Channel Drive, Far Rockaway, NY  
 Groundwater Sample Results  
 2nd Quarter 2018 - June 2018

COMPOUND	NYSDEC Ambient Water Quality Standards µg/L	15MW1		15MW2		15MW3		GW Duplicate		
		6/15/2018		6/15/2018		6/15/2018		6/15/2018		
		Result	RL	Result	RL	Result	RL	Result	RL	
1,1,1,2-Tetrachloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,1,1-Trichloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,1,2,2-Tetrachloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,1,2-Trichloroethane	1	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
1,1-Dichloroethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,1-Dichloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,1-Dichloropropene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,2,3-Trichlorobenzene		<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25	
1,2,3-Trichloropropane	0.04	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,2,4-Trichlorobenzene		0.29	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,2,4-Trimethylbenzene	5	<0.50	0.50	<0.50	0.50	<0.5	0.50	<0.50	0.50	
1,2-Dibromo-3-Chloropropane	0.04	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25	
1,2-Dibromoethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,2-Dichlorobenzene	5	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60	
1,2-Dichloroethane	0.6	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,2-Dichloropropane	1	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,3,5-Trimethylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,3-Dichlorobenzene		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,3-Dichloropropane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
1,4-Dichlorobenzene	5	<1.0	1.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	
1,4-dioxane		<100	100	<100	100	<100	100	<100	100	
2-Chlorotoluene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
2-Hexanone		<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	
2-isopropyltoluene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
2,2-Dichloropropane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
4-Chlorotoluene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
4-Methyl-2-Pentanone		<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	
Acetone		<b>3.2</b>	5.0	<b>15</b>	5.0	<b>2.8</b>	5.0	<b>3.2</b>	5.0	
Acrolein	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Acrylonitrile	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Benzene	1		<b>1.5</b>	0.70		<0.70	0.70	<b>0.73</b>	0.70	
Bromobenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Bromochloromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Bromodichloromethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Bromoform		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Carbon Disulfide	60	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Carbon Tetrachloride	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Chloromethane	60	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
cis-1,2-Dichloroethene	5	1.8	1.0	<b>3.7</b>	1.0	<b>6</b>	1.0	<b>1.9</b>	1.0	
cis-1,3-Dichloropropene		<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	
Dibromochloromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Dibromomethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Dichlorodifluoromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Ethyl Benzene	5	<1.0	1.0		<b>0.35</b>	1.0	<1.0	1.0	<1.0	1.0
Hexachlorobutadiene	0.5	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	
Isopropylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
m/p-Xylenes	5	<1.0	1.0	<b>1.1</b>	1.0	<1.0	1.0	<1.0	1.0	
Methyl ethyl ketone		<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	
Methyl tert-butyl Ether	10	<b>0.4</b>	1.0	<1.0	1.0	<1.0	1.0	<b>0.46</b>	1.0	
Methylene Chloride	5	<3.0	3.0	<3.0	3.0	<3.0	3.0	<3.0	3.0	
Naphthalene	10	<1.0	1.0		<b>1.7</b>	1.0	<1.0	1.0	<1.0	1.0
n-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
n-Propylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
o-Xylene	5	<1.0	1.0		<b>0.79</b>	1.0	<1.0	1.0	<1.0	1.0
p-Isopropyltoluene		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
sec-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Styrene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
tert-Butylbenzene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Tetrachloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Tetrahydrofuran (THF)		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Toluene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
trans-1,2-Dichloroethene	5	<b>2.4</b>	5.0	<b>0.26</b>	5.0	<b>0.54</b>	5.0	<b>2.5</b>	5.0	
trans-1,3-Dichloropropene	0.4	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	
trans-1,4-dichloro-2-butene	5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	
Trichloroethene	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Trichlorofluoromethane	5	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Trichlorotrifluoroethane		<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	
Vinyl Chloride	2	<b>0.66</b>	1.0	<b>14</b>	1.0	<b>5</b>	1.0	<b>0.68</b>	1.0	
Total Chlorinated VOC		5.15		17.96		11.24		5.08		
Total Petroleum VOC		1.50		3.94		0.73		1.50		
Total VOCs		10.25		36.90		14.77		10.24		

Notes:
RL - Reporting Limit
<b>Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard</b>

**TABLE 2A**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW1**

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1																	
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0
1,1-Dichloroethene	5	8.2	5.0	1.1	1.0	0.78	1.0	<1.0	1.0	1.4	5.0	0.58	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,1-Dichloropropene		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,2,3-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<0.25	0.25
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<1.3	1.3	<0.25	0.25	<0.25	0.25	<1.0	1.0	<1.0	1.0
1,2,4-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	0.29	1.0	0.29	1.0
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.50	0.50	<0.50	0.50
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<0.50	0.50	<2.5	2.5	<0.50	0.50	<0.50	0.50	<0.25	0.25	<0.25	0.25
1,2-Dibromoethane		<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<1.3	1.3	<0.25	0.25	<0.25	0.25	<1.0	1.0	<1.0	1.0
1,2-Diborobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<4.7	4.7	<1.0	1.0	<1.0	1.0	<0.60	0.60	<0.60	0.60
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.60	0.60	<0.60	0.60	<1.0	1.0	<1.0	1.0
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	4	4.0	<3.0	3.0	<1.0	1.0	0.35	1.0	<1.0	1.0	<1.0	1.0
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	100
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<2.5	2.5	<2.5	2.5
2-Hexanone (Methyl Butyl Ketone)		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<5.0	5.0	<5.0	5.0
2-isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
4-Methyl-2-Pentanone		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5
Acetone		<50	50	3.5	5.0	4.3	5.0	<5.0	5.0	<25	25	5.7	5.0	<5.0	5.0	<5.0	5.0	3.2	5.0
Acrolein		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Acrylonitrile	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Benzene	1	<5.0	5.0	1.1	0.70	0.84	0.70	0.25	0.70	<1.3	1.3	0.56	0.70	1.1	0.70	1.8	0.70	1.70	0.70
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromodichloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromoform		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<25	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Carbon Tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	0.29	5.0	<5.0	5.0	<5.0	5.0
Chloroform	7	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	0.29	5.0	<5.0	5.0	<5.0	5.0
Chloromethane	60	<5.0	5.0	<5.0	5.0	0.74	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
cis-1,2-Dichloroethene	5	6,000	400	300	20	230	10	51	5.0	690	13	300	20	76	10	17	1.0	5.40	1.0
cis-1,3-Dichloropropene		<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<1.3	1.3	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40
Dibromochloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dibromodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Hexachlorobutadiene	0.5	<5.0	5.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<1.0	1.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
m,p-Xylenes	5	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Methyl Ethyl Ketone (2-Butanone)	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	0.38	1.0	0.5	1.0	0.38	1.0
Methyl t-butyl ether (MTBE)	5	<20	20	<3.0	3.0	<3.0	3.0	<3.0	3.0	<5.0	5.0	<3.0	3.0	<3.0	3.0	<3.0	3.0	<3.0	3.0
Methylene chloride	5	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Naphthalene	10	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
n-Butylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
n-Propylbenz																			

**TABLE 2B**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW2**

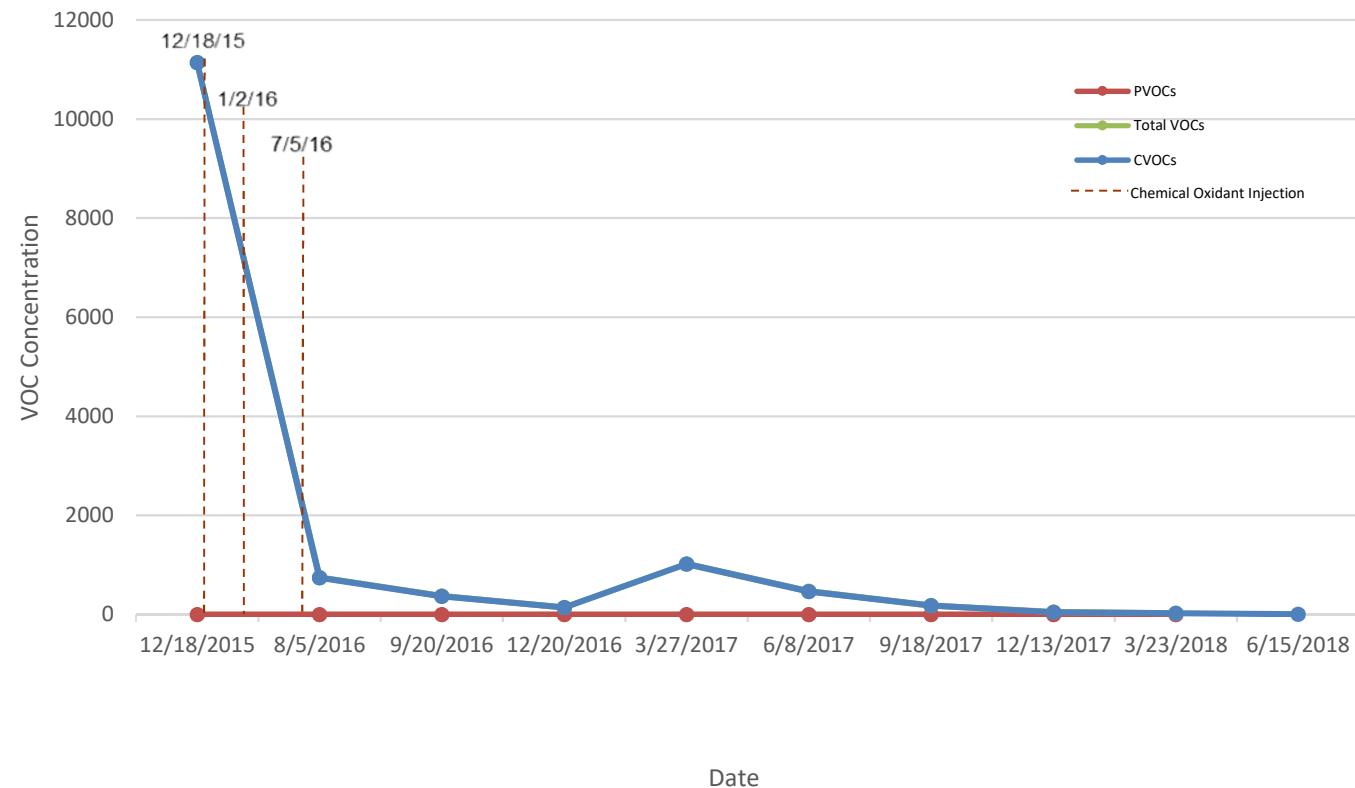
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW2																		
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	
1,1,1,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.3	1.3	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,1-Dichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,1-Dichloropropene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,2,3-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	
1,2,3-Trichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	
1,2,4-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,2,4-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	
1,2-Dibromo-3-chloropropane	0.04	< 10	10	< 1.0	1.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 2.5	2.5	< 0.50	0.50	< 0.25	0.25	< 0.25	0.25	
1,2-Dibromoethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	
1,2-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 4.7	4.7	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60	
1,2-Dichloroethane	0.6	< 5.0	5.0	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 10	10	< 2.5	2.5	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0	
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.3	1.3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,3-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	<b>4.40</b>	4.40	< 1.0	1.0	< 5.0	5.0	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100	
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	
2-Hexanone (Methyl Butyl Ketone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	< 2.5	2.5	< 5.0	5.0	
2-isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	
4-Methyl-2-Pentanone		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	< 2.5	2.5	< 2.5	2.5	
Acetone		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 10	10	<b>17.00</b>	17.00	<b>25</b>	<b>16</b>	<b>5.0</b>	<b>15</b>	<b>5.0</b>
Acrolein		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Acrylonitrile	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Benzene	1	< 5.0	5.0	1.10	0.70	<b>0.80</b>	<b>0.70</b>	<b>0.77</b>	0.77	< 5.1	5.1	< 1.3	1.3	<b>0.38</b>	<b>0.70</b>	< 0.70	0.70	< 0.70	0.70	
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Bromodichloromethane		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Bromoform		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 25	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Carbon Disulfide	60	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 7.0	7.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	
cis-1,2-Dichloroethene	5	<b>1400</b>	5.0	<b>25</b>	1.0	<b>18</b>	1.0	<b>10</b>	1.0	<b>5.0</b>	5.0	<b>10</b>	1.0	<b>440</b>	440	<b>25</b>	<b>1.0</b>	<b>5.9</b>	<b>1.0</b>	<b>3.7</b>
cis-1,3-Dichloropropene		< 5.0	5.0	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 1.3	1.3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	
Dibromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Dichlorofluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	
Ethybenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 4600	4600	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	
Hexachlorobutadiene	0.5	< 5.0	5.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 5.0	5.0	< 4.0	4.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	<b>28</b>	28	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	
m,p-Xylenes	5	< 20	20	< 1.0	1.0	< 1.0	1.0	0.20	1.0	< 1.0	1.0	<b>28,000</b>	28,000	< 5.0	5.0	<b>0.39</b>	<b>1.0</b>	<b>0.54</b>	<b>1.0</b>	<b>1.1</b>
Methyl Ethyl Ketone (2-Butanone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	<b>3</b>	<b>2.5</b>	< 2.5	< 2.5	< 2.5	< 2.5	
Methyl t-butyl ether (MTBE)	10	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0						

**TABLE 2C**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW3**

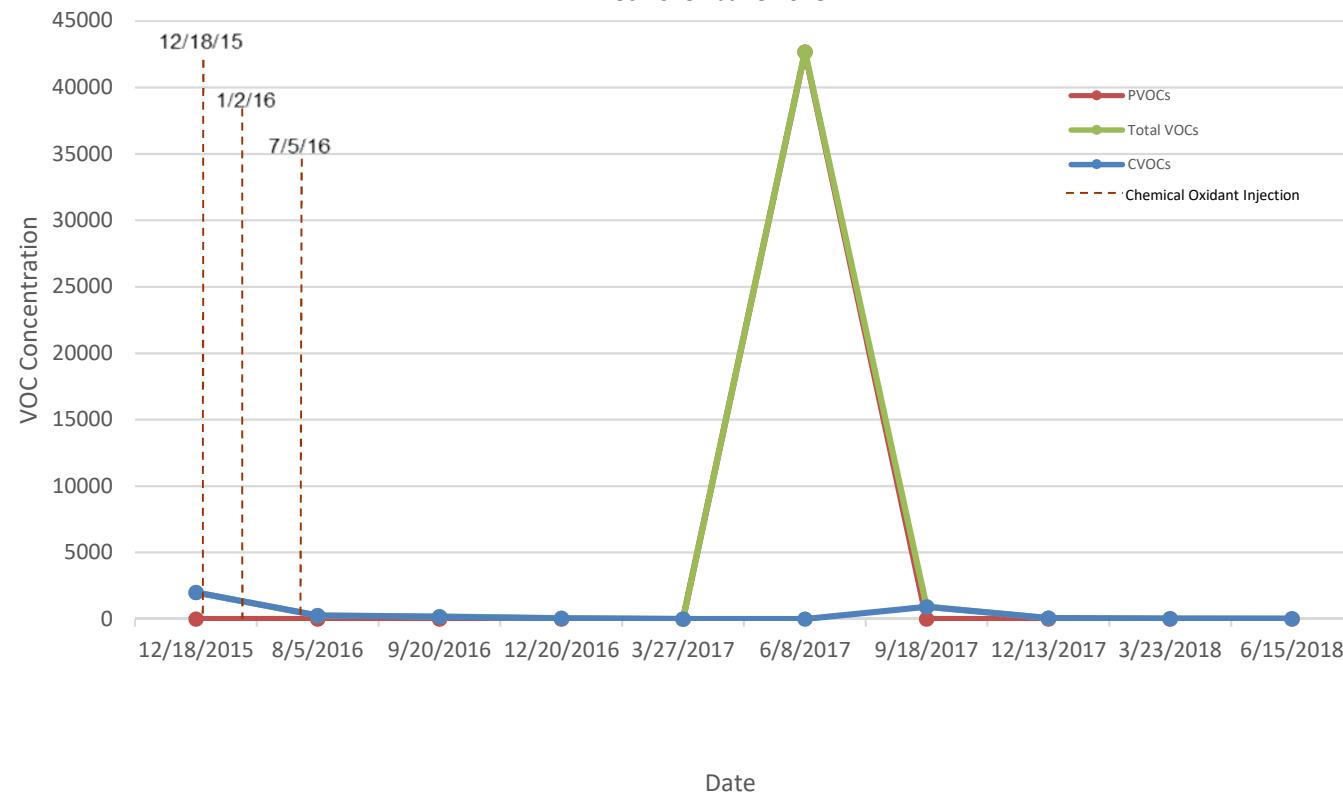
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW3																	
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0
1,1-Dichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	<b>51</b>	5.0	<b>110</b>	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 25	25
1,2,3-Trichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0
1,2,4-Trichlorobenzene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trichloropropane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 10	10	< 10	10	-	-	< 0.50	0.50	< 0.50	0.50	< 0.25	0.25
1,2-Dibromo-3-chloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0
1,2-Dibromoethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichlorobenzene	5	< 4.0	4.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60
1,2-Dichloroethane	0.6	< 3.0	3.0	< 0.60	0.60	< 0.60	0.60	< 10	10	< 10	10	-	-	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	5	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 2.5	2.5
2-Hexanone (Methyl Butyl Ketone)		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 5.0	5.0
2-isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone	<b>15</b>	25	< 5.0	5.0	<b>2.7</b>	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	<b>2.8</b>	5.0	
Acrolein		< 13	13	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 13	13	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene		<b>7.5</b>	3.5	0.49	0.70	<b>0.75</b>	0.70	< 5.0	5.0	< 5.0	5.0	-	-	<b>2.2</b>	0.70	<b>1.1</b>	0.70	<b>0.6</b>	0.70
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 25	25	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	<b>2.3</b>	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	<b>0.29</b>	1.0	< 1.0	1.0	< 1.0	1.0
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	<b>20</b>	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 7.0	7.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	0.3	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.41</b>	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	<b>430</b>	20	<b>72</b>	10	<b>24</b>	1.0	<b>11,000</b>	100	<b>21,000</b>	250	-	-	<b>29</b>	20	<b>26</b>	1.0	<b>9</b>	1.0
cis-1,3-Dichloropropene		< 2.0	2.0	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 5.0	5.0	-	-	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.3</b>	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 2.5	2.5	< 0.50	0.50	< 0.50	0.50	< 4.0	4.0	< 4.0	4.0	-	-	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.27</b>	1.0	< 1.0	1.0	< 1.0	1.0
m,p-Xylenes	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	<b>0.33</b>	1.0	< 1.0	1.0	< 1.0	1.0
Methyl Ethyl Ketone (2-Butanone)		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl t-butyl ether (MTBE)	10	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methylene chloride	5	< 5.0	5.0	< 3.0	3.0	< 3.0	3.0	< 20	20	< 20	20	-	-	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	<b>1.7</b>	1.0	< 1.0	1.0	< 1.0	1.0
n-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5																		

## **GRAPHS**

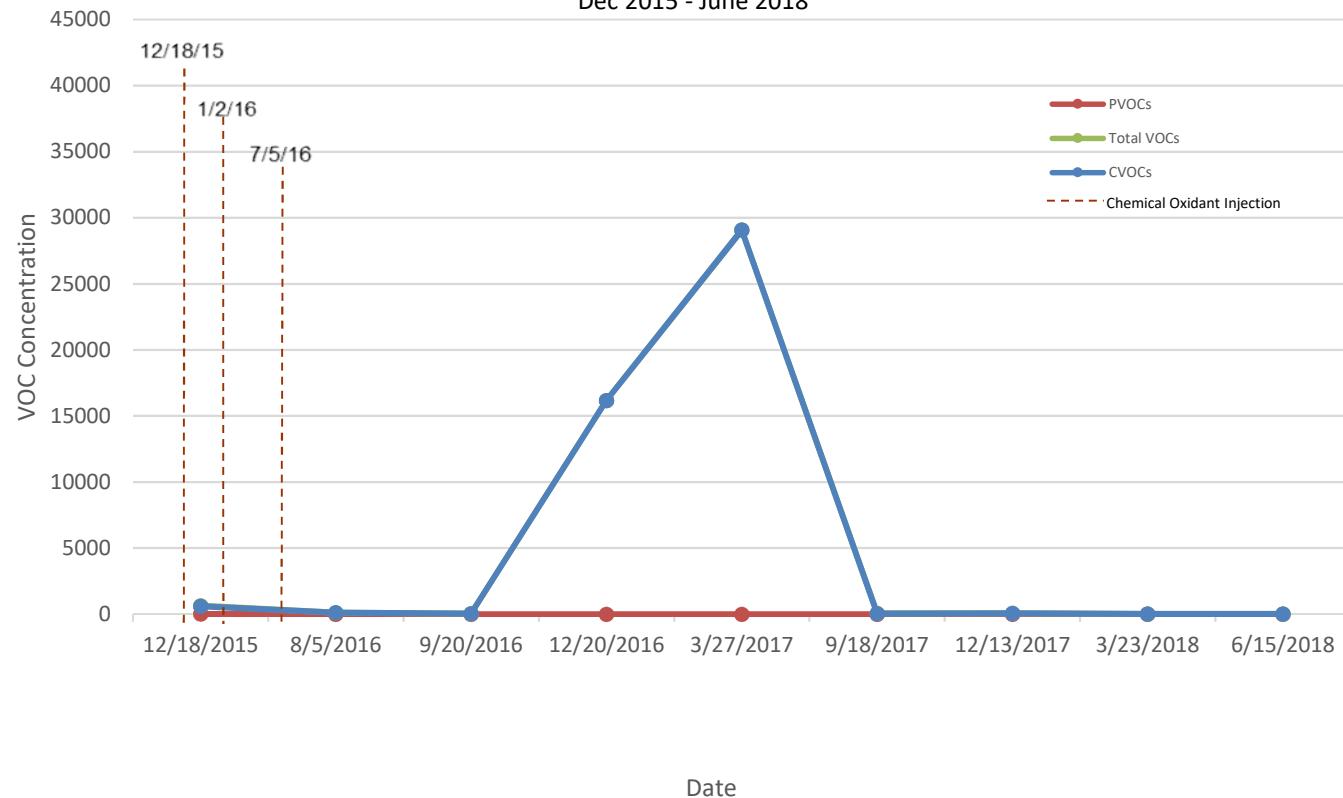
Graph 1  
15MW1 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018



Graph 2  
15MW2 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018



Graph 3  
15MW3 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - June 2018

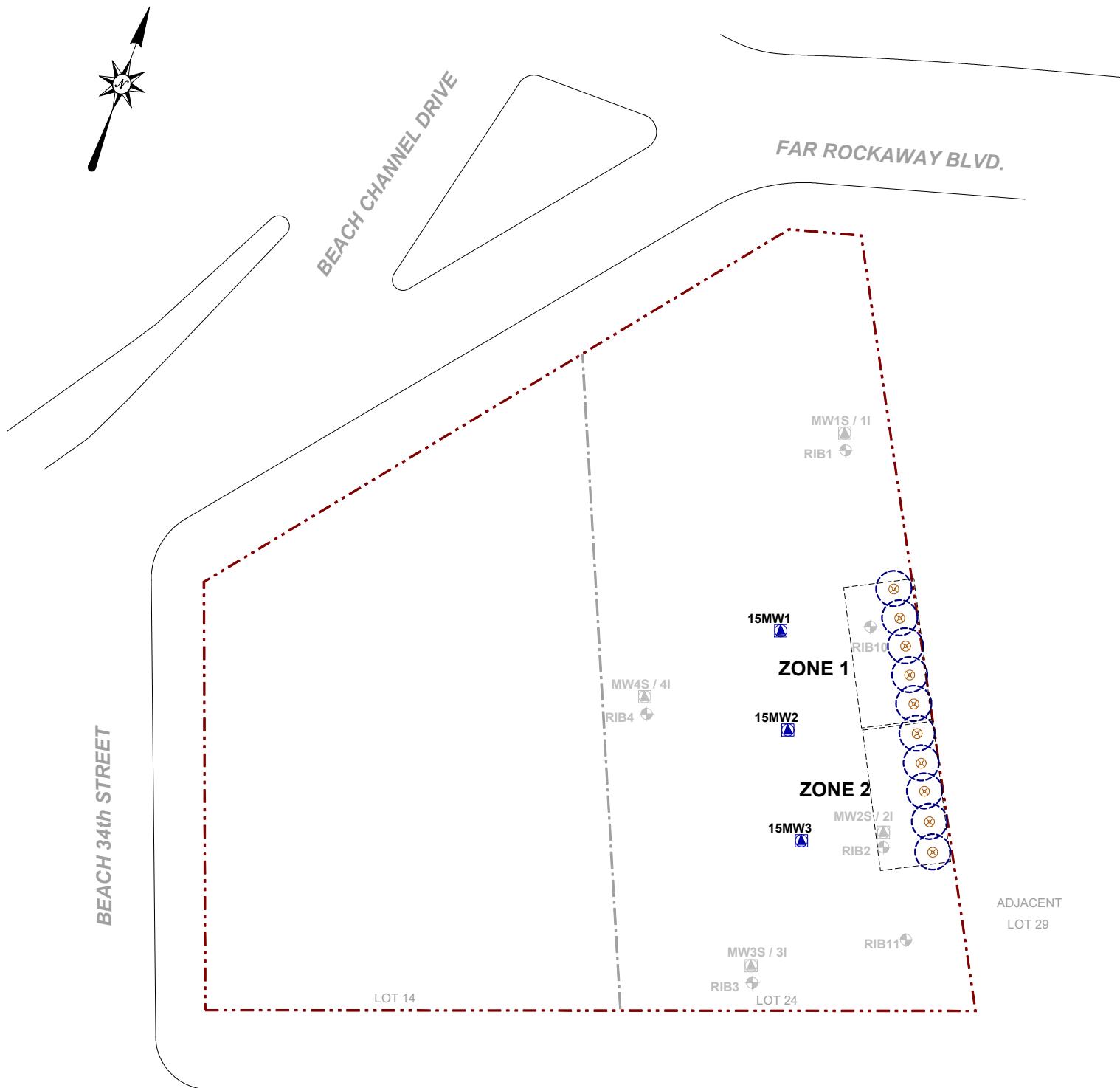


## **FIGURES**

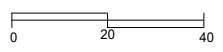


**ENVIRONMENTAL BUSINESS CONSULTANTS**

1808 MIDDLE COUNTRY ROAD | PHONE 631.504.6000  
RIDGE, NY 11961 | FAX 631.924.2870



**SCALE**



1 inch = 40 feet

**KEY**



Site Boundary



RI Monitoring Well



RI Soil Boring



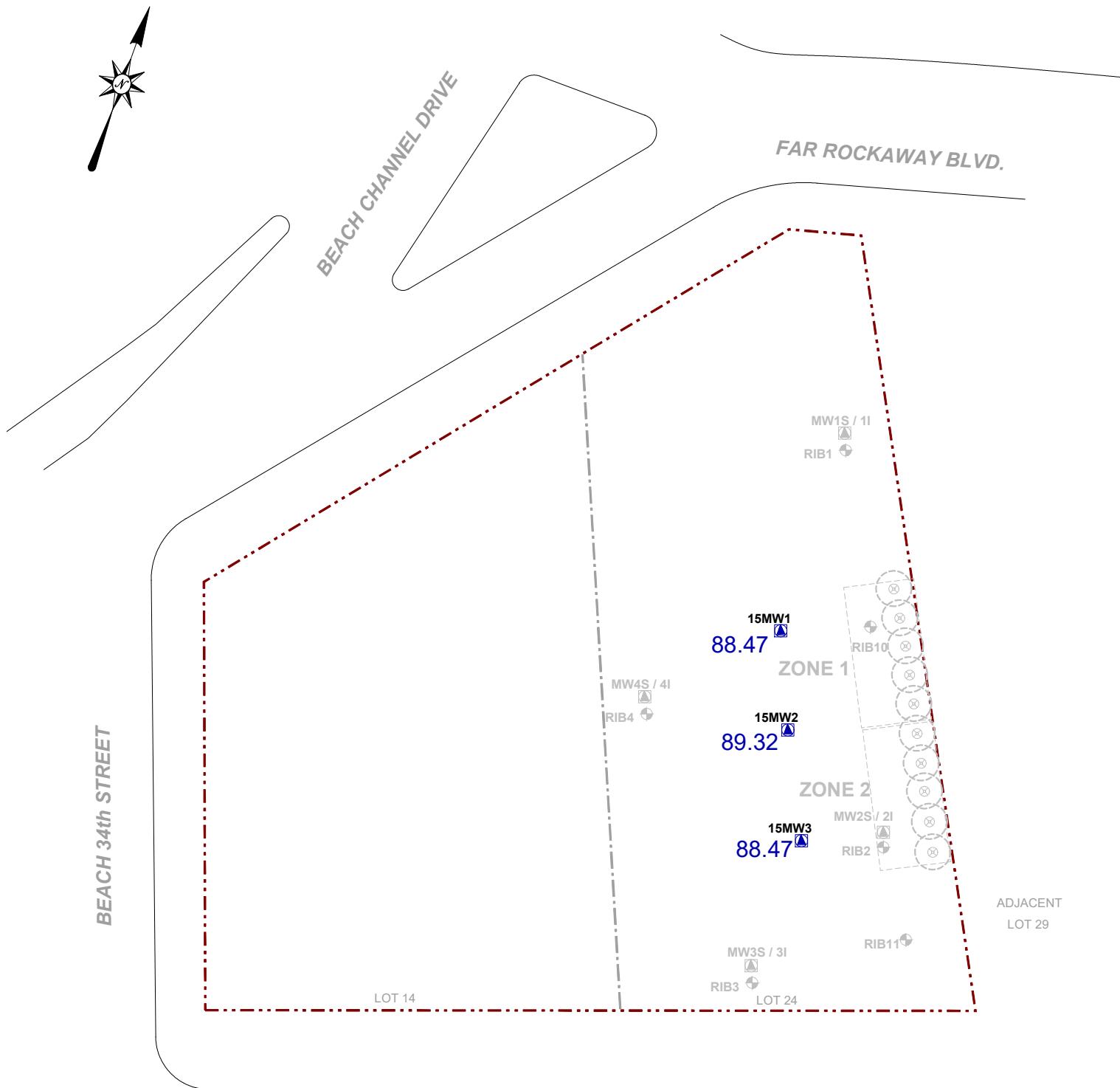
ISCO Performance Monitoring Well



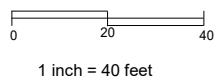
ROI (5 ft)

Oxidant Injection Location

**ROCKAWAY FREEWAY**



**SCALE**



1 inch = 40 feet

**KEY**



Site Boundary



RWx RI Monitoring Well



RIBx RI Soil Boring



15RWx ISCO Performance Monitoring Well



ROI (5 ft) Oxidant Injection Location

**ROCKAWAY FREEWAY**



LEGEND:

- SHALLOW WELLS WITH GROUNDWATER RELATIVE ELEVATION (FEET)
  - MW-1S (15.86)
- ← GROUNDWATER FLOW DIRECTION
- 16.0 — WATER TABLE CONTOURS (WESTERN WELLS)
- - - 16.1 - - - WATER TABLE CONTOURS (EASTERN WELLS)

FPM GROUP

FIGURE 3  
JANUARY 2015  
SHALLOW GROUNDWATER  
RELATIVE ELEVATION CONTOURS

34-11 BEACH CHANNEL DRIVE SITE  
FAR ROCKAWAY, QUEENS, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date 2/9/2015
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## **APPENDIX A**

### **WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORMS**

34-11 Beach Channel Drive

## GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15mW

Well Depth (from TOC):

Static Water Level (from TOC):

### Height of Water in Well:

### Gallons of Water per Well Volume:

**Flow Rate:** 400ml/min.

Date: 4/15/18

Hori ba , Peristaltic pump

34-11 Beach channel drive

## GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15 MW 2

Date: 6/15/18

Well Depth (from TOC):

### Static Water Level (from TOC):

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### Gallons of Water per Well Volume:

**Flow Rate:** 400ml/min.

Horiba, Peristaltic Pump

Time	Pump Rate Gal./min.	Temp. (deg. C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS	Comments
9:36	405 mL/min.	0	7.77	-85	772	411	6.86		Very turbid
9:39	.33	15.57	7.62	-109	445	349	6.62		Very turbid
9:44	.68	15.09	7.63	-129	493	275	6.23		turbid
9:49	1.43	15.00	7.60	-148	466	155	6.17		turbid
9:54	1.98	15.00	7.62	-157	481	69.8	6.04		turbid
9:59	2.53	15.01	7.63	-161	481	47.6	6.12		clear
10:04	3.08	14.97	7.62	-163	509	40.1	5.75		clear

34-11 Beach Channel Drive

## GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15 mw3

Well Depth (from TOC):

Static Water Level (from TOC):

### Height of Water in Well:

### Gallons of Water per Well Volume:

**Flow Rate:**

Date: 6/15/18

**Equipment:**

Horiba, Peristaltic Pump

Note 400 ml = 0.11 gallons

## **APPENDIX B**

### **Laboratory Reports**



**ENVIRONMENTAL BUSINESS CONSULTANTS**

1808 MIDDLE COUNTRY ROAD | PHONE 631.504.6000  
RIDGE, NY 11961 | FAX 631.924.2870



Thursday, June 21, 2018

Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

Project ID: 34-11 BEACH CHANNEL DRIVE  
Sample ID#s: CA72509 - CA72512

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## SDG Comments

June 21, 2018

SDG I.D.: GCA72509

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### 8260 Volatile Organics:

1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/FID method 504 or 8011 to achieve this criteria.



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

June 21, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O. #:

### Custody Information

Collected by:  
Received by: LB  
Analyzed by: see "By" below

Date

06/15/18

06/18/18 13:27

SDG ID: GCA72509

Phoenix ID: CA72509

Project ID: 34-11 BEACH CHANNEL DRIVE  
Client ID: 15MW1

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	3.2	JS	5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Benzene	1.5	0.70	0.25	ug/L	1	06/19/18	MH	SW8260C	
Bromobenzene	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Bromochloromethane	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Bromodichloromethane	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Bromoform	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Bromomethane	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Carbon Disulfide	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Carbon tetrachloride	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Chlorobenzene	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Chloroethane	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Chloroform	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Chloromethane	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
cis-1,2-Dichloroethene	1.8	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
Dibromochloromethane	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Dibromomethane	ND		1.0	ug/L	1	06/19/18	MH	SW8260C	
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Ethylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	06/19/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
m&p-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	0.40	J	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	06/19/18	MH	SW8260C
Naphthalene	ND		1.0	1.0	ug/L	1	06/19/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
o-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	06/19/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,2-Dichloroethene	2.4	J	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Vinyl chloride	0.66	J	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %	
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %	
% Dibromofluoromethane	102			%	1	06/19/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	06/19/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	06/19/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

June 21, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

June 21, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: LB  
Analyzed by: see "By" below

Date

06/15/18

Time

13:27

## Laboratory Data

SDG ID: GCA72509

Phoenix ID: CA72510

Project ID: 34-11 BEACH CHANNEL DRIVE  
Client ID: 15MW2

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	15	S	5.0	2.5	ug/L	1	06/19/18	MH SW8260C
Acrolein	ND		5.0	2.5	ug/L	1	06/19/18	MH SW8260C
Acrylonitrile	ND		5.0	2.5	ug/L	1	06/19/18	MH SW8260C
Benzene	ND		0.70	0.25	ug/L	1	06/19/18	MH SW8260C
Bromobenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	06/19/18	MH SW8260C
cis-1,2-Dichloroethene	3.7		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Ethylbenzene	0.35	J	1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	06/19/18	MH SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
m&p-Xylene	1.1		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	06/19/18	MH SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	06/19/18	MH SW8260C
Naphthalene	1.7		1.0	1.0	ug/L	1	06/19/18	MH SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
o-Xylene	0.79	J	1.0	0.25	ug/L	1	06/19/18	MH SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Styrene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	06/19/18	MH SW8260C
Toluene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
trans-1,2-Dichloroethene	0.26	J	5.0	0.25	ug/L	1	06/19/18	MH SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	06/19/18	MH SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
Vinyl chloride	14		1.0	0.25	ug/L	1	06/19/18	MH SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %
% Bromofluorobenzene	99			%	1	06/19/18	MH	70 - 130 %
% Dibromofluoromethane	104			%	1	06/19/18	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	100			%	1	06/19/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %
% Bromofluorobenzene	99			%	1	06/19/18	MH	70 - 130 %
% Toluene-d8	100			%	1	06/19/18	MH	70 - 130 %
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	06/19/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	06/19/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

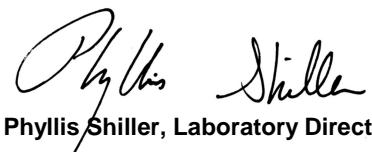
Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

June 21, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

June 21, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: LB  
Analyzed by: see "By" below

Date

06/15/18  
06/18/18 13:27

Time

Project ID: 34-11 BEACH CHANNEL DRIVE  
Client ID: 15MW3

### Laboratory Data

SDG ID: GCA72509

Phoenix ID: CA72511

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	2.8	JS	5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Benzene	0.73	0.70	0.25	ug/L	1	06/19/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
cis-1,2-Dichloroethene	6.0	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Ethylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	06/19/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
m&p-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	06/19/18	MH	SW8260C
Naphthalene	ND		1.0	1.0	ug/L	1	06/19/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
o-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	06/19/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,2-Dichloroethene	0.54	J	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Vinyl chloride	4.7	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %	
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %	
% Dibromofluoromethane	103			%	1	06/19/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	98			%	1	06/19/18	MH	70 - 130 %
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	06/19/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	06/19/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

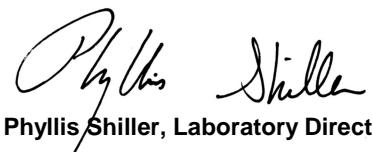
Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

June 21, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

June 21, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: LB  
Analyzed by: see "By" below

Date

06/15/18

Time

13:27

## Laboratory Data

SDG ID: GCA72509

Phoenix ID: CA72512

Project ID: 34-11 BEACH CHANNEL DRIVE  
Client ID: DUPLICATE

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	06/19/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	06/19/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	3.2	JS	5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	06/19/18	MH	SW8260C	
Benzene	1.5	0.70	0.25	ug/L	1	06/19/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
cis-1,2-Dichloroethene	1.9	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Ethylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	06/19/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
m&p-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	0.46	J	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	06/19/18	MH	SW8260C
Naphthalene	ND		1.0	1.0	ug/L	1	06/19/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
o-Xylene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	06/19/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,2-Dichloroethene	2.5	J	5.0	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	06/19/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	06/19/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
Vinyl chloride	0.68	J	1.0	0.25	ug/L	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	99			%	1	06/19/18	MH	70 - 130 %	
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %	
% Dibromofluoromethane	104			%	1	06/19/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	06/19/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	99			%	1	06/19/18	MH	70 - 130 %
% Bromofluorobenzene	100			%	1	06/19/18	MH	70 - 130 %
% Toluene-d8	101			%	1	06/19/18	MH	70 - 130 %
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	06/19/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	06/19/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	06/19/18	MH	SW8260C

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

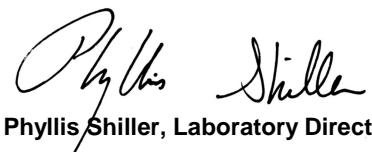
Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

June 21, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



**Environmental Laboratories, Inc.**

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## QA/QC Report

June 21, 2018

### QA/QC Data

SDG I.D.: GCA72509

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 435401 (ug/L), QC Sample No: CA71870 (CA72509, CA72510, CA72511, CA72512)										
<b>Volatiles - Ground Water</b>										
1,1,1,2-Tetrachloroethane	ND	1.0	99	92	7.3				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	92	85	7.9				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	85	78	8.6				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	83	76	8.8				70 - 130	30
1,1-Dichloroethane	ND	1.0	83	76	8.8				70 - 130	30
1,1-Dichloroethene	ND	1.0	81	75	7.7				70 - 130	30
1,1-Dichloropropene	ND	1.0	86	81	6.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	92	83	10.3				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	87	79	9.6				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	90	82	9.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	89	83	7.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	95	89	6.5				70 - 130	30
1,2-Dibromoethane	ND	1.0	89	80	10.7				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	86	82	4.8				70 - 130	30
1,2-Dichloroethane	ND	1.0	99	91	8.4				70 - 130	30
1,2-Dichloropropane	ND	1.0	81	75	7.7				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	89	83	7.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	87	81	7.1				70 - 130	30
1,3-Dichloropropane	ND	1.0	86	79	8.5				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	87	81	7.1				70 - 130	30
1,4-dioxane	ND	100	109	91	18.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	93	89	4.4				70 - 130	30
2-Chlorotoluene	ND	1.0	85	79	7.3				70 - 130	30
2-Hexanone	ND	5.0	83	75	10.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	95	89	6.5				70 - 130	30
4-Chlorotoluene	ND	1.0	84	78	7.4				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	87	78	10.9				70 - 130	30
Acetone	ND	5.0	85	79	7.3				70 - 130	30
Acrolein	ND	5.0	96	88	8.7				70 - 130	30
Acrylonitrile	ND	5.0	86	81	6.0				70 - 130	30
Benzene	ND	0.70	80	75	6.5				70 - 130	30
Bromobenzene	ND	1.0	89	82	8.2				70 - 130	30
Bromochloromethane	ND	1.0	83	77	7.5				70 - 130	30
Bromodichloromethane	ND	0.50	94	88	6.6				70 - 130	30
Bromoform	ND	1.0	100	92	8.3				70 - 130	30
Bromomethane	ND	1.0	100	96	4.1				70 - 130	30
Carbon Disulfide	ND	1.0	84	81	3.6				70 - 130	30
Carbon tetrachloride	ND	1.0	95	88	7.7				70 - 130	30
Chlorobenzene	ND	1.0	87	81	7.1				70 - 130	30
Chloroethane	ND	1.0	92	86	6.7				70 - 130	30
Chloroform	ND	1.0	89	82	8.2				70 - 130	30

QA/QC Data

SDG I.D.: GCA72509

Parameter	Blank	Blk RL	LCS	LCSD	LCS	MS	MSD	MS	% Rec Limits	% RPD Limits
			%	%	RPD	%	RPD			
Chloromethane	ND	1.0	83	80	3.7				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	80	75	6.5				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	85	81	4.8				70 - 130	30
Dibromochloromethane	ND	0.50	102	93	9.2				70 - 130	30
Dibromomethane	ND	1.0	86	79	8.5				70 - 130	30
Dichlorodifluoromethane	ND	1.0	96	89	7.6				70 - 130	30
Ethylbenzene	ND	1.0	87	82	5.9				70 - 130	30
Hexachlorobutadiene	ND	0.40	96	93	3.2				70 - 130	30
Isopropylbenzene	ND	1.0	83	78	6.2				70 - 130	30
m&p-Xylene	ND	1.0	87	81	7.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	92	78	16.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	92	86	6.7				70 - 130	30
Methylene chloride	ND	1.0	74	69	7.0				70 - 130	30
Naphthalene	ND	1.0	91	82	10.4				70 - 130	30
n-Butylbenzene	ND	1.0	87	82	5.9				70 - 130	30
n-Propylbenzene	ND	1.0	84	79	6.1				70 - 130	30
o-Xylene	ND	1.0	86	80	7.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	89	83	7.0				70 - 130	30
sec-Butylbenzene	ND	1.0	88	82	7.1				70 - 130	30
Styrene	ND	1.0	87	81	7.1				70 - 130	30
tert-butyl alcohol	ND	10	117	99	16.7				70 - 130	30
tert-Butylbenzene	ND	1.0	88	82	7.1				70 - 130	30
Tetrachloroethene	ND	1.0	86	81	6.0				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	87	82	5.9				70 - 130	30
Toluene	ND	1.0	82	76	7.6				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	79	73	7.9				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	88	82	7.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	94	87	7.7				70 - 130	30
Trichloroethene	ND	1.0	86	80	7.2				70 - 130	30
Trichlorofluoromethane	ND	1.0	104	98	5.9				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	97	91	6.4				70 - 130	30
Vinyl chloride	ND	1.0	88	83	5.8				70 - 130	30
% 1,2-dichlorobenzene-d4	97	%	98	96	2.1				70 - 130	30
% Bromofluorobenzene	98	%	104	103	1.0				70 - 130	30
% Dibromofluoromethane	101	%	106	102	3.8				70 - 130	30
% Toluene-d8	100	%	101	101	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference


Phyllis Shiller, Laboratory Director  
June 21, 2018

# Sample Criteria Exceedances Report

## GCA72509 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CA72509	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.5	0.70	0.7	0.7	ug/L
CA72509	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.5	0.70	1	1	ug/L
CA72509	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA72509	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA72509	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA72509	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria (SPLP)	1.5	0.70	1	1	ug/L
CA72509	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA72509	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA72509	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA72510	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	14	1.0	2	2	ug/L
CA72510	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA72510	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA72510	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	14	1.0	2	2	ug/L
CA72510	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA72510	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA72510	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	14	1.0	2	2	ug/L
CA72510	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA72510	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA72511	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	0.73	0.70	0.7	0.7	ug/L
CA72511	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	4.7	1.0	2	2	ug/L
CA72511	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA72511	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA72511	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	6.0	1.0	5	5	ug/L
CA72511	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	4.7	1.0	2	2	ug/L
CA72511	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA72511	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria (SPLP)	4.7	1.0	2	2	ug/L
CA72511	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA72511	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA72511	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria (SPLP)	6.0	1.0	5	5	ug/L
CA72511	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L
CA72512	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.5	0.70	0.7	0.7	ug/L
CA72512	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.5	0.70	1	1	ug/L
CA72512	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CA72512	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CA72512	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CA72512	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.50	0.04	0.04	ug/L
CA72512	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.0006	0.0006	ug/L
CA72512	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria (SPLP)	1.5	0.70	1	1	ug/L
CA72512	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria (SPLP)	ND	0.25	0.04	0.04	ug/L

Thursday, June 21, 2018

Criteria: NY: GW

State: NY

## Sample Criteria Exceedances Report

GCA72509 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
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## Analysis Comments

June 21, 2018

SDG I.D.: GCA72509

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **VOA Narration**

**CHEM02 06/19/18-1:** CA72509, CA72510, CA72511, CA72512

The following Initial Calibration compounds did not meet RSD% criteria: 1,2-Dibromo-3-chloropropane 21% (20%), Bromomethane 25% (20%).  
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.033 (0.05), Acetone 0.054 (0.1), Acrolein 0.029 (0.05), Bromoform 0.086 (0.1), Methyl ethyl ketone 0.085 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), Acrolein 0.028 (0.05)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

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## NY Temperature Narration

June 21, 2018

SDG I.D.: GCA72509

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The samples in this delivery group were received at 2.2°C.  
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)





ENVIRONMENTAL BUSINESS CONSULTANTS

October 9, 2018

Ms. Alicia A Barraza  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 2  
Division of Spill Prevention and Response Programs  
47-40 21<sup>st</sup> Street, Long Island City, New York 11101

**Re:    Quarterly Groundwater Sampling Report**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Queens, New York**  
**NYSDEC BCP Number: C241141**

Dear Ms. Barraza:

Please find the enclosed Quarterly Groundwater Sampling Report for the above referenced project for the third quarter of 2018. In accordance with the Site Management Plan (SMP), a round of groundwater sampling was performed on September 19, 2018 for 15MW1, 15MW2 and 15MW3.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Thomas Gallo  
Environmental Geologist

Kevin Waters  
Project Manager

Cc:    J. O'Connell, NYSDEC  
      A. Arker, Bedford Park Associates LLC  
      S. Arker, Bedford Park Associates LLC  
      C. Sosik, EBC  
      A. Czemerinski, AMC  
      J. Brooks, Phillips Nizer



ENVIRONMENTAL BUSINESS CONSULTANTS

1808 Middle Country Road  
Ridge, NY 11961

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**34-11 BEACH CHANNEL DRIVE SITE**  
**NYSDEC BCP Number C241141**  
**Project Status Report**  
**3<sup>rd</sup> Quarter 2018**

**Reporting Summary**

<b>Report Date:</b>	October 9, 2018
<b>Reporting Period:</b>	3 <sup>rd</sup> Quarter of 2018
<b>Site Status:</b>	Building is under construction, currently working on interior
<b>Work Performed this Quarter:</b>	September 19, 2018 – Groundwater sampling events performed on the three on-site monitoring wells.
<b>Remediation Status:</b>	No chemical oxidant events were performed during this period. A chemical oxidant injection was last performed on December 18, 2015, January 2, 2016 and July 5, 2016.

**Monitoring Program Summary**

<b>No. of Wells:</b>	3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Gauging Frequency:</b>	Quarterly for the three monitoring wells.
<b>Sampling Frequency:</b>	Quarterly, 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Reporting Frequency:</b>	Groundwater Sampling Report (Quarterly).
<b>Groundwater Depth:</b>	5.5 ft (sidewalk grade)
<b>GW Flow Direction:</b>	Historically groundwater flow direction was to the west, but during the second quarter groundwater sampling event the groundwater flow direction was inconclusive.
<b>Monitoring Results:</b>	No product was detected within any of the monitoring wells.
<b>Sampling Results:</b>	VOCs were detected above NYSDEC GQS in two of the three monitoring wells sampled during this event.

## OXIDANT INJECTIONS:

No chemical oxidant injections were performed during this period. Chemical Oxidant Injections were last performed on July 5, 2016.

## LIQUID LEVEL MONITORING:

Depths to water readings were taken from the 3 monitoring wells with an electronic interface meter prior to purging the wells for sampling. As previously noted, no Liquid Phase Hydrocarbons (LPH) was detected in any of the monitoring wells or injections points during this quarter.

Groundwater elevation as, determined from the depth to water readings and casing elevation, was used to approximate groundwater contours and the groundwater flow direction for the site (**Figure 2**). Groundwater elevation details are provided in **Table 1**. Historically groundwater flow direction was to the west, but during the first quarter groundwater sampling event the groundwater flow direction was inconclusive (**Figure 3**).

## GROUNDWATER SAMPLING:

The 3Q18 groundwater sampling event was performed on September 19, 2018. The groundwater samples were collected from 15MW1, 15MW2 and I5MW3 in accordance with the low-flow groundwater sampling procedures outlined within the SMP. See (**Figure 1**) for the location of all site monitoring wells and chemical oxidant injection wells. A copy of each of the Well Purging-Field Water Quality Measurements Form is attached as (**Appendix A**). The groundwater samples were picked up by laboratory dispatched courier and delivered to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260.

Copies of the laboratory reports are attached as (**Appendix B**). The laboratory results are summarized and compared to their appropriate standards/criteria in (**Table 2**) and to previous sampling events in (**Table 3A-3C**).

## GROUNDWATER SAMPLING RESULTS:

**15MW1** – The VOCs including cis-1,2-dichloroethene (13 µg/L) and vinyl chloride (7.9 µg/L) were reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW1 increased from 10.25 µg/L to 22.58 µg/L and CVOC concentrations have increase from 5.15 µg/L to 21.74 µg/L when compared to the 2Q18 sampling event.

**15MW2** – No VOCs were reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW2 have decreased from 36.90 µg/L to 8.74 µg/L and CVOC concentrations have decreased from 17.96 µg/L to 2.47 µg/L when compared to the 2Q18 sampling event.

15MW3 - The VOC benzene (1.4 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW3 decreased from 14.77 µg/L to 6.77 µg/L and CVOC concentrations have decreased from 11.24 µg/L to 3.84 µg/L when compared to the 2Q18 sampling event.

## GROUNDWATER VOC CONCENTRATION TRENDS:

As depicted in the concentration graphs (**Graphs 1-3**), remedial efforts from 2015 through 2016 resulted in a significant reduction in CVOC concentrations in the current focus area as defined by wells 15MW1, 15MW2 and 15MW3. The total VOC and CVOC concentrations within 15MW2 and 15MW3 decreased during this sampling event which followed the overall decreasing trend. The CVOC concentration within 15MW1 increased slightly during this sampling event, with cis-1,2-dichloroethene and vinyl chloride reported above NYSDEC GQS. Although the CVOC and total VOC concentrations increased when compared to the 2Q18 sampling event the overall VOC concentrations are significantly lower than the pre-treatment concentrations.

## FUTURE PLANS / RECOMMENDATIONS:

Remedial efforts at the Site have been successful in significantly reducing the overall chlorinated VOCs in groundwater. Water quality is expected to continue to improve over time. The rebound of chlorinated VOCs that had been observed in 15MW3 during the 4Q16 and 1Q17 sampling has continued on a downward trend since the 1Q17 sampling event with no CVOCs reported above NYSDEC GQS during the 3Q18 sampling event.

No VOCs were detected above NYSDEC GQS in 15MW2. Benzene was the only VOC reported above NYSDEC GQS in 15MW3. Only two VOCs, cis-1,2-dichloroethene and vinyl chloride were reported above NYSDEC GQS in 15MW1. EBC therefore requests the termination of groundwater monitoring based on the low levels of VOC concentrations observed.



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## **TABLES**

34-11 Beach Channel Drive Site  
34-11 Beach Chanel Drive, Far Rockaway, NY

Table 1  
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 9/19/2018	DTP	PT	GW ELV 9/19/2018
15MW1	1	30	15 to 30	6.26	93.74	6.26	-	-	87.48
15MW2	1	30	15 to 30	5.40	94.6	5.40	-	-	89.20
15MW3	1	30	15 to 30	5.90	94.10	5.90	-	-	88.20

**TABLE 2**  
 34-11 Beach Channel Drive, Far Rockaway, NY  
 Groundwater Sample Results  
 3rd Quarter 2018 - September 2018

COMPOUND	NYSDEC Ambient Water Quality Standards µg/L	15MW1		15MW2		15MW3		GW Duplicate	
		9/19/2018		9/19/2018		9/19/2018		9/19/2018	
		Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroether	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-Chloropropane	0.04	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 0.25	0.25	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		< 100	100	< 100	100	< 100	100	< 100	100
2-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Hexanone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
2-Isopropyltoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,2-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone		< 10	10	< 10	10	< 10	10	< 10	10
Acrolein	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	1	<b>0.84</b>	0.70	< 0.70	0.70	<b>1.4</b>	0.70	<b>0.9</b>	0.70
Bromobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon Tetrachloride	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	<b>13</b>	1.0	<b>0.87</b>	1.0	<b>1.4</b>	1.0	<b>6.1</b>	1.0
cis-1,3-Dichloropropene		< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethyl Benzene	5	< 1.0	1.0	<b>0.67</b>	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m/p-Xylenes	5	< 1.0	1.0	<b>2.7</b>	1.0	< 1.0	1.0	< 1.0	1.0
Methyl ethyl ketone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl tert-butyl Ether	10	< 1.0	1.0	< 1.0	1.0	<b>0.43</b>	1.0	< 1.0	1.0
Methylene Chloride	5	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 1.0	1.0	<b>1.2</b>	1.0	<b>1.1</b>	1.0	< 1.0	1.0
n-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	5	< 1.0	1.0	<b>1.7</b>	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tert-butyl alcohol		< 50	50	< 50	50	< 50	50	< 50	50
tert-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	<b>0.84</b>	5.0	< 5.0	5.0	<b>2.1</b>	5.0	<b>0.76</b>	5.0
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	<b>7.9</b>	1.0	<b>1.6</b>	1.0	<b>0.34</b>	1.0	<b>6.6</b>	1.0
Total Chlorinated VOC			<b>21.74</b>		<b>2.47</b>		<b>3.84</b>		<b>13.46</b>
Total Petroleum VOC			<b>0.84</b>		<b>6.27</b>		<b>2.93</b>		<b>0.90</b>
Total VOCs			<b>22.58</b>		<b>8.74</b>		<b>6.77</b>		<b>14.36</b>

Notes:

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 3A  
 34-11 Beach Channel Drive Site  
 34-11 Beach Channel Drive, Far Rockaway, New York  
 Groundwater Analytical Results  
 Volatile Organic Compounds  
 15MW1

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1																					
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018			
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0				
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0				
1,1-Dichloroethene	5	<b>8.2</b>	5.0	<b>1.1</b>	1.0	<b>0.78</b>	1.0	<b>&lt;1.0</b>	1.0	<b>1.4</b>	1.0	<b>0.58</b>	1.0	<b>&lt;1.0</b>	1.0	<b>&lt;1.0</b>	1.0	<b>&lt;1.0</b>	1.0				
1,1-Dichloropropene	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,2,3-Trichlorobenzene	-	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<25	25	<25	25				
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<2.5	2.5	<1.3	1.3	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5				
1,2,4-Trichlorobenzene	-	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<2.5	2.5	<2.5	2.5				
1,2,4,Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<50	50	<50	50				
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<0.50	0.50	<2.5	2.5	<0.50	0.50	<0.50	0.50	<0.25	0.25	<0.25	0.25				
1,2-Dibromoethane	-	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<1.3	1.3	<0.25	0.25	<0.25	0.25	<1.0	1.0	<0.25	0.25				
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<4.7	4.7	<1.0	1.0	<1.0	1.0	<0.80	0.80	<0.60	0.60	<1.0	1.0				
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.60	0.60	<0.60	0.60	<0.60	0.60	<1.0	1.0	<0.60	0.60				
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<b>4</b>	1.0	<3.0	3.0	<1.0	1.0	<1.0	1.0	<b>0.35</b>	1.0	<1.0	1.0				
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<4.7	4.7	<1.0	1.0	<1.0	1.0	<0.80	0.80	<0.60	0.60	<1.0	1.0				
1,4-Dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	100	<100	100			
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<2.5	2.5	<2.5	2.5	<2.5	2.5				
2-Hexanone (Methyl Butyl Ketone)	-	<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50				
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0				
4-Methyl-2-Pentanone	-	<50	50	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5				
Acetone	-	<50	50	<b>3.5</b>	5.0	<b>4.3</b>	5.0	<5.0	5.0	<25	25	<b>5.7</b>	5.0	<5.0	5.0	<5.0	5.0	<b>3.2</b>	5.0	<10	10		
Acrolein	-	<50	50	<5.0	5.0	<5.0	5.0	<13	13	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Acrylonitrile	5	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Benzene	1	<5.0	5.0	1.1	1.0	<b>0.84</b>	0.70	<b>0.25</b>	0.70	<b>1.3</b>	1.3	<b>0.56</b>	0.70	<b>1.1</b>	0.70	<b>1.8</b>	0.70	<b>1.70</b>	0.70	<b>1.5</b>	0.70	<b>0.84</b>	0.70
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromodichloromethane	-	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Bromoform	-	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<25	25	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<b>0.29</b>	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloroform	7	<7.0	7.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
Chloromethane	60	<5.0	5.0	<5.0	5.0	<b>0.74</b>	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0
cis-1,2-Dichloroethene	5	<b>6,000</b>	400	<b>300</b>	20	<b>230</b>	10	<b>51</b>	5.0	<b>690</b>	13	<b>300</b>	20	<b>76</b>	10	<b>17</b>	1.0	<b>5.40</b>	1.0	<b>1.8</b>	1.0	<b>13</b>	1.0
cis-1,3-Dichloropropene	-	<5.0	5.0	<0.40	0.40	<0.40	0.40	<1.3	1.3	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40
Dibromochloromethane	-	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0
Hexachlorobutadiene	0.5	<5.0	5.0	<0.50	0.50	<0.50	0.50	<1.0	1.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0													

**TABLE 3B**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW2**

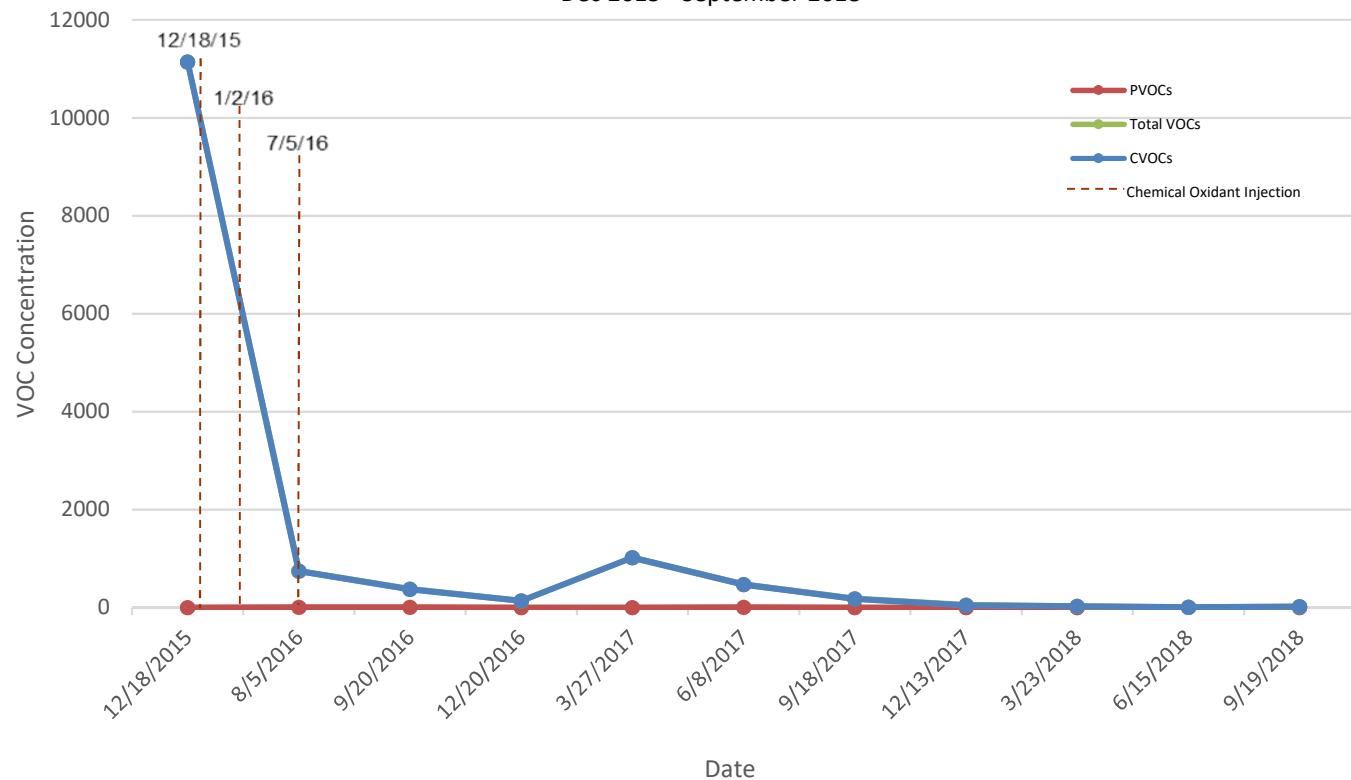
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW2																					
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018		9/19/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.3	1.3	<1.0	1.0	<5.0	5.0	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0		
1,1-Dichloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloropropene		<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2,3-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<25	25	<25	25	<1.0	1.0		
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<25	25	<25	25	<5.0	5.0	<1.3	1.3	<25	25	<1.0	1.0	<25	25		
1,2,4-Trichlorobenzene		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<0.50	0.50	<0.50	0.50	<10	10	<2.5	2.5	<0.50	0.50	<25	25	<0.50	0.50		
1,2-Dibromoethane		<5.0	5.0	<1.0	1.0	<1.0	1.0	<25	25	<25	25	<5.0	5.0	<1.3	1.3	<25	25	<1.0	1.0	<25	25		
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<4.7	4.7	<1.0	1.0	<6.0	6.0	<1.0	1.0	<1.0	1.0		
1,2-Dichloropropane	0.6	<5.0	5.0	<0.80	0.80	<0.60	0.60	<0.60	0.60	<10	10	<2.5	2.5	<0.60	0.60	<1.0	1.0	<0.80	0.80	<1.0	1.0		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<b>4.40</b>	1.0	<1.0	1.0	<5.0	5.0	<3.0	3.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,4-dioxane		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	100		
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<2.5	2.5	<2.5	2.5	<1.0	1.0		
2-Hexanone (Methyl Butyl Ketone)		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5	<50	50	<1.0	1.0		
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
4-Methyl-2-Pentanone		<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5	<2.5	2.5	<1.0	1.0		
Acetone		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<b>17.00</b>	25	<b>16</b>	5.0	<5.0	5.0	<b>15</b>	5.0	<10	
Acrolein		<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Acrylonitrile	5	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Benzene	1	<5.0	5.0	1.10	0.70	<b>0.80</b>	0.70	<b>0.77</b>	7.0	<b>0.74</b>	0.70	<5.1	5.0	<1.3	1.3	<b>0.38</b>	0.70	<0.70	0.70	<0.70	0.70		
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromodichloromethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromoform		<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<50	50	<25	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloromethane	60	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	<b>1400</b>	5.0	<b>25</b>	1.0	<b>18</b>	1.0	<b>10</b>	5.0	<b>5.50</b>	1.0	<b>12</b>	20	<b>440</b>	20	<b>25</b>	1.0	<b>5.9</b>	1.0	<b>3.7</b>	1.0	<b>0.87</b>	
cis-1,3-Dichloropropene		<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<5.0	5.0	<1.3	1.3	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40		
Dibromoethane		<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Hexachlorobutadiene	0.5	<5.0	5.0	<0.90	0.90	<0.50	0.50	<0.50	0.50	<4.00	4.00	<5.0	5.0	<1.0	1.0	<0.50	0.50	<0.50	0.50	<0.50	0.50		
Isopropylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0																

**TABLE 3C**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW3**

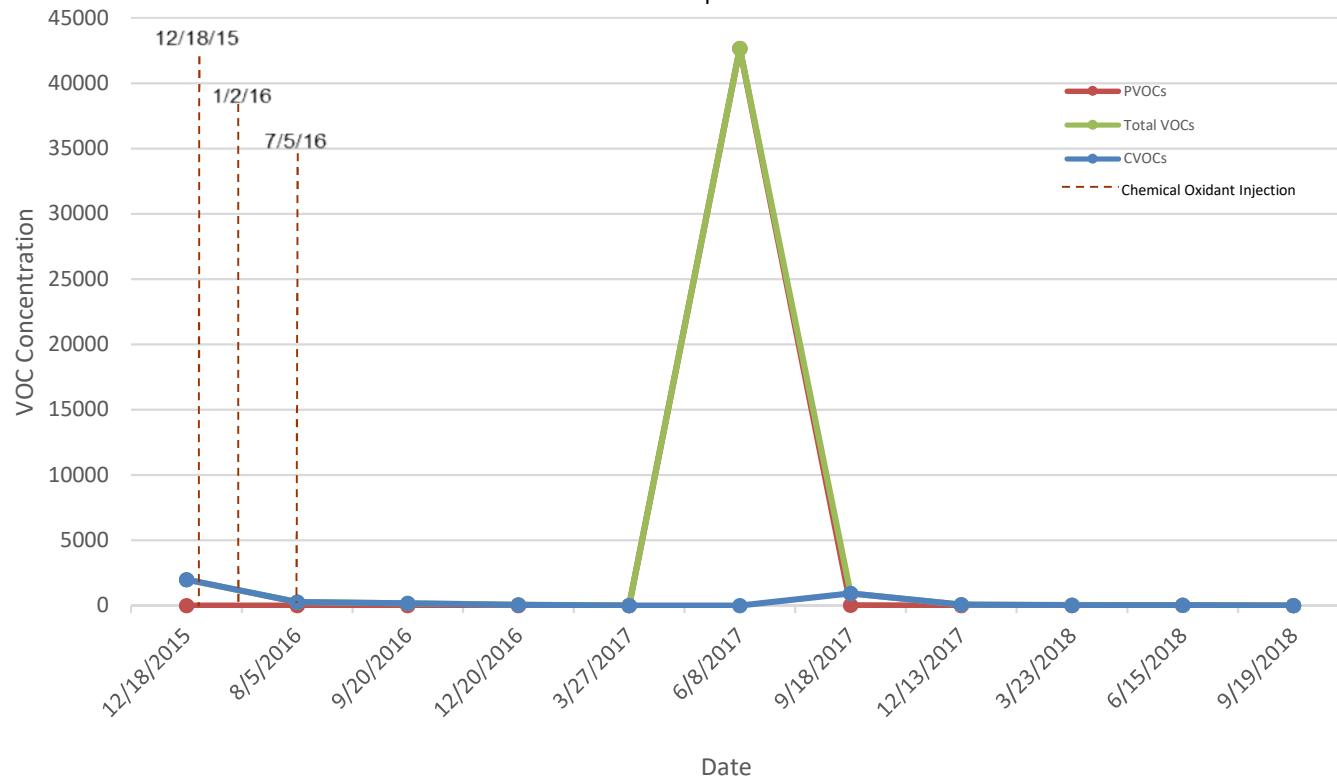
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW3																					
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018		9/19/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0		
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0		
1,1-Dichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	<b>51</b>	5.0	<b>110</b>	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,1-Dichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 25	25	< 25	25	< 1.0	1.0	< 25	25		
1,2,3-Trichlorobenzene	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0		
1,2,4-Trichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,2,4-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.32</b>	1.0	< 1.0	1.0	< 0.50	0.50	< 1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 10	10	-	-	< 50	50	< 25	25	< 25	25	< 0.50	0.50	< 1.0	1.0		
1,2-Dibromoethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 25	25	< 25	25	< 1.0	1.0	< 25	25		
1,2-Dichlorobenzene	5	< 4.0	4.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 1.0	1.0		
1,2-Dichloroethane	0.6	< 3.0	3.0	< 0.60	0.60	< 0.60	0.60	< 10	10	< 10	10	-	-	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 0.60	0.60		
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,3-Dichlorobenzene	5	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100	< 100	100	
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
2-Hexane (Methyl Butyl Ketone)	-	< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 5.0	5.0	< 1.0	1.0		
2-Isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
4-Methyl-3-Pentanone	-	< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5		
Acetone	<b>15</b>	25	< 5.0	5.0	<b>2.7</b>	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	<b>2.8</b>	5.0	< 10	10	-	-	
Acrolein	-	< 13	13	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Acrylonitrile	5	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>2.2</b>	7.0	<b>1.1</b>	7.0	<b>0.6</b>	7.0	<b>0.73</b>	7.0		
Benzene	1	<b>7.5</b>	3.5	0.49	0.70	<b>0.75</b>	0.70	< 5.0	5.0	< 5.0	5.0	-	-	<b>2.2</b>	7.0	<b>1.1</b>	7.0	<b>0.6</b>	7.0	<b>0.73</b>	7.0		
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Bromodichloromethane	-	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Bromoform	-	< 25	25	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Bromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Carbon Disulfide	60	<b>2.3</b>	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	<b>0.29</b>	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Chloroethane	5	<b>20</b>	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 7.0	7.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
Chloromethane	60	< 5.0	5.0	0.3	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.41</b>	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0		
cis-1,2-Dichloroethene	5	<b>430</b>	20	<b>72</b>	10	<b>24</b>	1.0	<b>11,000</b>	100	<b>21,000</b>	250	-	-	<b>29</b>	20	<b>26</b>	1.0	<b>9</b>	1.0	<b>6</b>	1.0	<b>1.4</b>	1.0
cis-1,3-Dichloropropene	-	< 2.0	2.0	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 5.0	5.0	-	-	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40		
Dibromochloromethane	-	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Dibromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Dichlorodifluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Ethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	<b>0.3</b>	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		
Hexachlorobutadiene	0.5	< 2.5	2.5	< 0.50	0.50	< 0.50	0.50	< 4.0	4.0	< 4.0	4.0	-	-	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50		
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	<b>0.27</b>	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0		

## GRAPHS

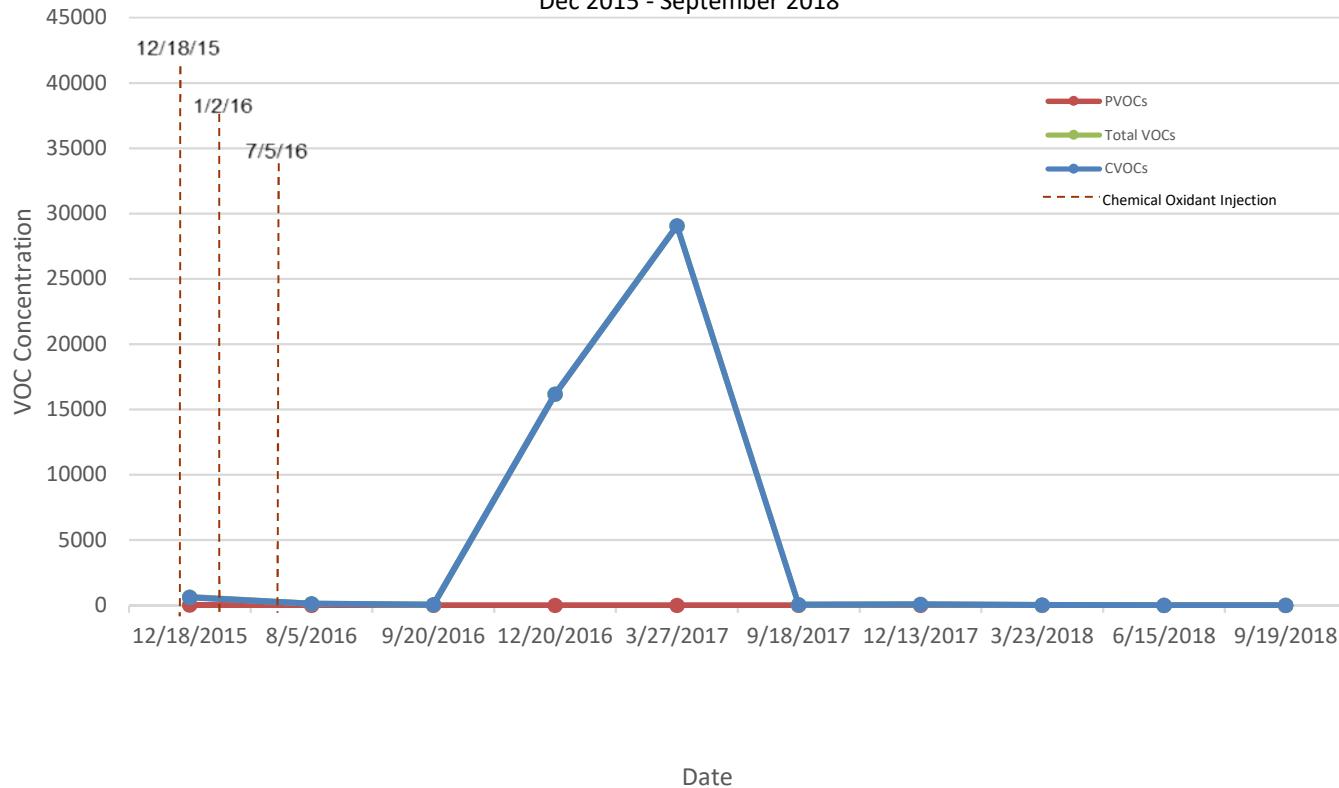
Graph 1  
15MW1 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - September 2018



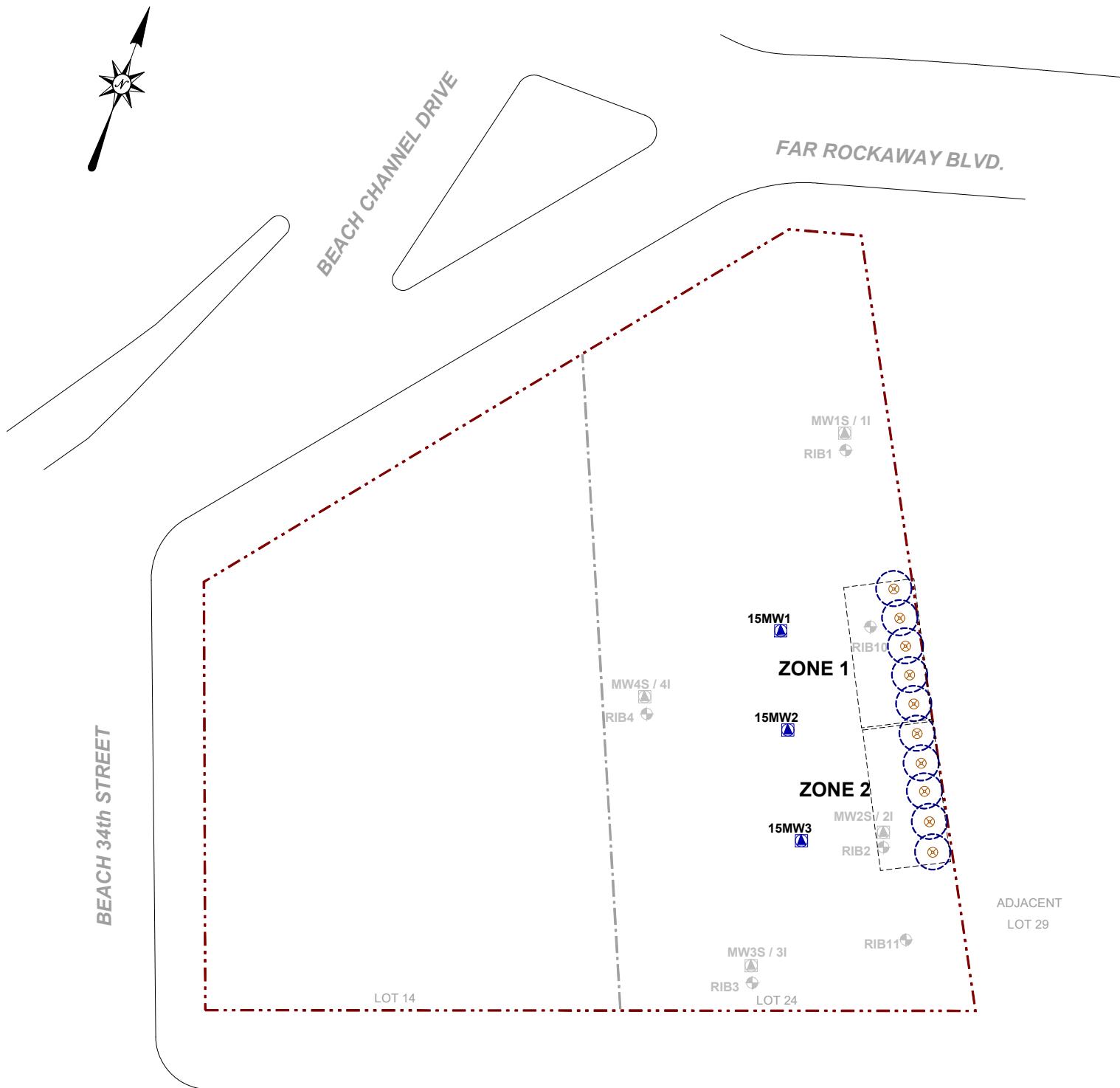
Graph 2  
15MW2 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - September 2018



Graph 3  
15MW3 VOCs  
34-11 Beach Channel Drive, Queens, NY  
Dec 2015 - September 2018



## **FIGURES**



**SCALE**

0      20      40

1 inch = 40 feet

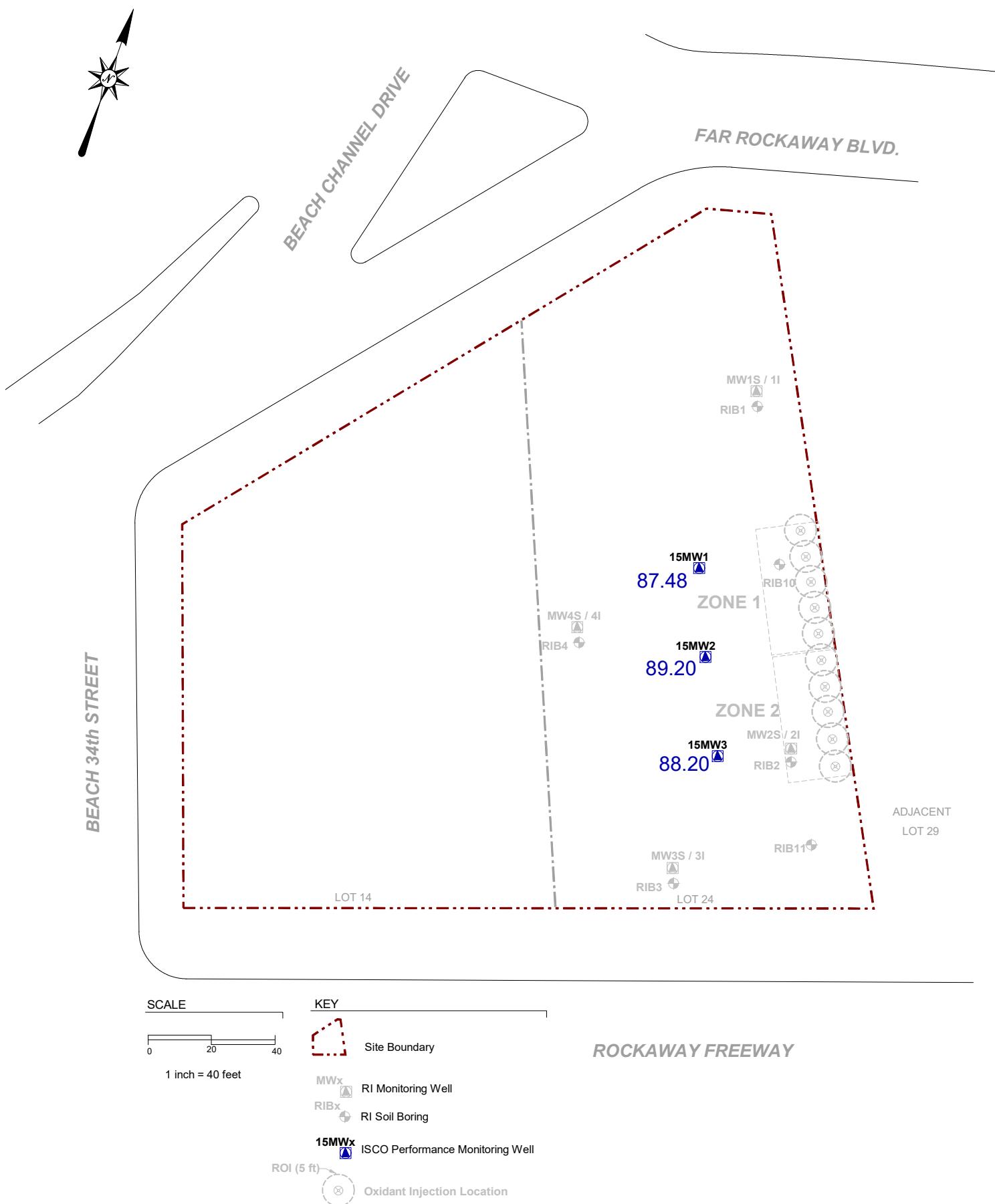
**KEY**

- Site Boundary
- MWx RI Monitoring Well
- RIBx RI Soil Boring
- 15MWx ISCO Performance Monitoring Well
- ROI (5 ft) Oxidant Injection Location

**ROCKAWAY FREEWAY**

**Figure No.**  
**1**

Site Name:	34-11 Beach Channel Drive Site
Site Address:	34-11 Beach Channel Drive, Far Rockaway, NY
Drawing Title:	Injection and Monitoring Well Locations





LEGEND:

- SHALLOW WELLS WITH GROUNDWATER RELATIVE ELEVATION (FEET)
  - MW-1S (15.86)
- ← GROUNDWATER FLOW DIRECTION
- 16.0 — WATER TABLE CONTOURS (WESTERN WELLS)
- - - 16.1 - - - WATER TABLE CONTOURS (EASTERN WELLS)

FPM GROUP

FIGURE 3  
JANUARY 2015  
SHALLOW GROUNDWATER  
RELATIVE ELEVATION CONTOURS

34-11 BEACH CHANNEL DRIVE SITE  
FAR ROCKAWAY, QUEENS, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date 2/9/2015

## **APPENDIX A**

### **WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORMS**



## **GROUNDWATER PURGE / SAMPLE LOGS**

34-11 Beach Channel Drive, Queens, NY

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15Mwl

Well Depth (from TOC):

Station Water | 2019

Static Water Level (in feet): 3.26

Height of Water in Well:

### Gallons of Water per Well Volume:

Flow Rate:  
400ml/min.

400ml/min.

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## Flow Rates

400

Date: 9/19/2018

Note 400 ml = 0.11 gallons



## **GROUNDWATER PURGE / SAMPLE LOGS**

34-11 Beach Channel Drive, Queens, NY

ENVIRONMENTAL BUSINESS CONSULTANTS

Well ID: KNW3

Well Depth (from TOC):

Static Water Level (from TOC):

### Height of Water in Well

Gallons of Water per Well Volume

Flow Rate: 400ml/min.

400m/min.

Date: 9/19/2018

Peristaltic Pump, U-52 Horiba

Note 400 ml = 0.11 gallons



## GROUNDWATER PURGE / SAMPLE LOGS

34-11 Beach Channel Drive, Queens, NY

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 199W3

Well Depth (from TOC):

Static Water level (from TOC):

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Flow Rate:

MCQs | Page: 400

Date: 9/19/2018

Time	Pump Rate m³/min	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS	Comments
8:07	400	0	7.24	6.44	20.26	2.52	-89	16.2		Clear
8:10	1	33	7.17	6.35	19.68	.76	-92	16.0		Clear
8:15		88	7.11	6.14	18.84	.02	-104	6.14		
8:20		1.43	7.09	5.93	18.66	0	-110	0		Clear
8:25		1.48	7.09	5.75	18.40	0	-115	0		Clear
8:30	✓	2.53	7.08	5.66	18.21	0	-118	0		Clear

Note 400 ml = 0.11 gallons

## **APPENDIX B**

### **Laboratory Reports**



Monday, October 01, 2018

Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Sample ID#s: CB35613 - CB35617

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## SDG Comments

October 01, 2018

SDG I.D.: GCB35613

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### 8260 Volatile Organics:

1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/FID method 504 or 8011 to achieve this criteria.



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 01, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

Date

Time

09/19/18 8:15

09/20/18 15:50

### Laboratory Data

SDG ID: GCB35613

Phoenix ID: CB35613

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Client ID: 15MW3

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	10	10	ug/L	1	09/23/18	PS	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Benzene	0.84	0.70	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,2-Dichloroethene	13	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	09/23/18	PS	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methylene chloride	ND	3.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
Naphthalene	ND	1.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,2-Dichloroethene	0.84	J	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Vinyl chloride	7.9	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	99			%	1	09/23/18	PS	70 - 130 %	
% Bromofluorobenzene	97			%	1	09/23/18	PS	70 - 130 %	
% Dibromofluoromethane	95			%	1	09/23/18	PS	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98			%	1	09/23/18	PS	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	09/23/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	09/23/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	09/23/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit  
 QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

October 01, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 01, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

Date

Time

09/19/18 9:23  
09/20/18 15:50  
SDG ID: GCB35613  
Phoenix ID: CB35614

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Client ID: 15MW2

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	10	10	ug/L	1	09/23/18	PS	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Benzene	ND	0.70	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,2-Dichloroethene	0.87	J	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Ethylbenzene	0.67	J	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	09/23/18	PS	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
m&p-Xylene	2.7	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methylene chloride	ND	3.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
Naphthalene	1.2	1.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
o-Xylene	1.7	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,2-Dichloroethene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Vinyl chloride	1.6	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	99			%	1	09/23/18	PS	70 - 130 %	
% Bromofluorobenzene	95			%	1	09/23/18	PS	70 - 130 %	
% Dibromofluoromethane	86			%	1	09/23/18	PS	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98			%	1	09/23/18	PS	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	09/23/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	09/23/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	09/23/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

October 01, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 01, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

Date

Time

09/19/18 10:30

09/20/18 15:50

SDG ID: GCB35613

Phoenix ID: CB35615

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Client ID: 15MW1

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	10	10	ug/L	1	09/23/18	PS	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Benzene	1.4	0.70	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloromethane	ND	5.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
cis-1,2-Dichloroethene	1.4	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	09/23/18	PS	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Methyl t-butyl ether (MTBE)	0.43	J	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
Naphthalene	1.1	1.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,2-Dichloroethene	2.1	J	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Vinyl chloride	0.34	J	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	96			%	1	09/23/18	PS	70 - 130 %	
% Bromofluorobenzene	97			%	1	09/23/18	PS	70 - 130 %	
% Dibromofluoromethane	93			%	1	09/23/18	PS	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98			%	1	09/23/18	PS	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	09/23/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	09/23/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	09/23/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit  
 QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

October 01, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 01, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

Date

09/19/18  
09/20/18      15:50

Time

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Client ID: DUPLICATES

### Laboratory Data

SDG ID: GCB35613

Phoenix ID: CB35616

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	10	10	ug/L	1	09/23/18	PS	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Benzene	0.90	0.70	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,2-Dichloroethene	6.1	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	09/23/18	PS	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Methylene chloride	ND	3.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
Naphthalene	ND	1.0	1.0	ug/L	1	09/23/18	PS	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C	
Toluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,2-Dichloroethene	0.76	J	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
Vinyl chloride	6.6	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C	
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	92			%	1	09/23/18	PS	70 - 130 %	
% Bromofluorobenzene	91			%	1	09/23/18	PS	70 - 130 %	
% Dibromofluoromethane	75			%	1	09/23/18	PS	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	96			%	1	09/23/18	PS	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	09/23/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	09/23/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	09/23/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit  
 QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

October 01, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 01, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

Date

09/19/18  
09/20/18 15:50

Time

SDG ID: GCB35613

Phoenix ID: CB35617

Project ID: 34-11 BEACH CHANNEL DR, QUEENS NY  
Client ID: TRIP BLANKS

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	09/23/18	PS	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	10	10	ug/L	1	09/23/18	PS	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	09/23/18	PS	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Bromodichloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Bromoform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Bromomethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Carbon Disulfide	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Chlorobenzene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Chloroethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Chloroform	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Chloromethane	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C
Dibromochloromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	09/23/18	PS	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	09/23/18	PS	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	09/23/18	PS	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	09/23/18	PS	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,2-Dichloroethene	ND	5.0	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	09/23/18	PS	SW8260C
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	09/23/18	PS	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	09/23/18	PS	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	99			%	1	09/23/18	PS	70 - 130 %
% Bromofluorobenzene	99			%	1	09/23/18	PS	70 - 130 %
% Dibromofluoromethane	96			%	1	09/23/18	PS	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99			%	1	09/23/18	PS	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100		ug/l	1	09/23/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0		ug/L	1	09/23/18	MH	SW8260C
Acrolein	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Acrylonitrile	ND	5.0		ug/L	1	09/23/18	MH	SW8260C
Tert-butyl alcohol	ND	50		ug/L	1	09/23/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

TRIP BLANK INCLUDED.

#### Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

October 01, 2018

Reviewed and Released by: Phyllis Shiller, Laboratory Director



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## QA/QC Report

October 01, 2018

### QA/QC Data

SDG I.D.: GCB35613

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 448861 (ug/L), QC Sample No: CB35617 (CB35613, CB35614, CB35615, CB35616, CB35617)										
<b>Volatiles - Ground Water</b>										
1,1,1,2-Tetrachloroethane	ND	1.0		104	103	1.0			70 - 130	30
1,1,1-Trichloroethane	ND	1.0		102	96	6.1			70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50		104	103	1.0			70 - 130	30
1,1,2-Trichloroethane	ND	1.0		97	98	1.0			70 - 130	30
1,1-Dichloroethane	ND	1.0		101	96	5.1			70 - 130	30
1,1-Dichloroethene	ND	1.0		101	94	7.2			70 - 130	30
1,1-Dichloropropene	ND	1.0		102	96	6.1			70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0		102	120	16.2			70 - 130	30
1,2,3-Trichloropropane	ND	1.0		101	101	0.0			70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0		101	110	8.5			70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0		101	96	5.1			70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0		105	121	14.2			70 - 130	30
1,2-Dibromoethane	ND	1.0		100	99	1.0			70 - 130	30
1,2-Dichlorobenzene	ND	1.0		99	98	1.0			70 - 130	30
1,2-Dichloroethane	ND	1.0		101	99	2.0			70 - 130	30
1,2-Dichloropropane	ND	1.0		99	97	2.0			70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0		100	95	5.1			70 - 130	30
1,3-Dichlorobenzene	ND	1.0		101	97	4.0			70 - 130	30
1,3-Dichloropropane	ND	1.0		98	97	1.0			70 - 130	30
1,4-Dichlorobenzene	ND	1.0		100	98	2.0			70 - 130	30
1,4-dioxane	ND	100		89	100	11.6			70 - 130	30
2,2-Dichloropropane	ND	1.0		100	91	9.4			70 - 130	30
2-Chlorotoluene	ND	1.0		101	95	6.1			70 - 130	30
2-Hexanone	ND	5.0		94	101	7.2			70 - 130	30
2-Isopropyltoluene	ND	1.0		105	99	5.9			70 - 130	30
4-Chlorotoluene	ND	1.0		101	95	6.1			70 - 130	30
4-Methyl-2-pentanone	ND	5.0		97	99	2.0			70 - 130	30
Acetone	ND	5.0		91	109	18.0			70 - 130	30
Acrolein	ND	5.0		88	88	0.0			70 - 130	30
Acrylonitrile	ND	5.0		101	105	3.9			70 - 130	30
Benzene	ND	0.70		100	97	3.0			70 - 130	30
Bromobenzene	ND	1.0		101	97	4.0			70 - 130	30
Bromochloromethane	ND	1.0		100	99	1.0			70 - 130	30
Bromodichloromethane	ND	0.50		99	99	0.0			70 - 130	30
Bromoform	ND	1.0		110	111	0.9			70 - 130	30
Bromomethane	ND	1.0		113	106	6.4			70 - 130	30
Carbon Disulfide	ND	1.0		104	97	7.0			70 - 130	30
Carbon tetrachloride	ND	1.0		103	97	6.0			70 - 130	30
Chlorobenzene	ND	1.0		100	97	3.0			70 - 130	30
Chloroethane	ND	1.0		104	97	7.0			70 - 130	30
Chloroform	ND	1.0		99	95	4.1			70 - 130	30

QA/QC Data

SDG I.D.: GCB35613

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chloromethane	ND	1.0	96	91	5.3				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	103	98	5.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	98	96	2.1				70 - 130	30
Dibromochloromethane	ND	0.50	109	110	0.9				70 - 130	30
Dibromomethane	ND	1.0	102	101	1.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	102	95	7.1				70 - 130	30
Ethylbenzene	ND	1.0	103	96	7.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	103	102	1.0				70 - 130	30
Isopropylbenzene	ND	1.0	102	95	7.1				70 - 130	30
m&p-Xylene	ND	1.0	102	96	6.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	90	96	6.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	105	0.0				70 - 130	30
Methylene chloride	ND	1.0	98	97	1.0				70 - 130	30
Naphthalene	ND	1.0	102	122	17.9				70 - 130	30
n-Butylbenzene	ND	1.0	102	96	6.1				70 - 130	30
n-Propylbenzene	ND	1.0	103	96	7.0				70 - 130	30
o-Xylene	ND	1.0	102	99	3.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	102	96	6.1				70 - 130	30
sec-Butylbenzene	ND	1.0	108	99	8.7				70 - 130	30
Styrene	ND	1.0	102	98	4.0				70 - 130	30
tert-butyl alcohol	ND	10	100	100	0.0				70 - 130	30
tert-Butylbenzene	ND	1.0	103	96	7.0				70 - 130	30
Tetrachloroethene	ND	1.0	103	97	6.0				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	98	97	1.0				70 - 130	30
Toluene	ND	1.0	100	96	4.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	104	95	9.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	96	97	1.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	102	103	1.0				70 - 130	30
Trichloroethene	ND	1.0	101	95	6.1				70 - 130	30
Trichlorofluoromethane	ND	1.0	104	97	7.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	102	96	6.1				70 - 130	30
Vinyl chloride	ND	1.0	108	100	7.7				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0				70 - 130	30
% Bromofluorobenzene	100	%	101	100	1.0				70 - 130	30
% Dibromofluoromethane	102	%	98	101	3.0				70 - 130	30
% Toluene-d8	98	%	100	100	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference


Phyllis Shiller, Laboratory Director  
October 01, 2018

Monday, October 01, 2018

Criteria: NY: 375GWP, GW

State: NY

# Sample Criteria Exceedances Report

## GCB35613 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CB35613	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	0.84	0.70	0.7	0.7	ug/L
CB35613	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	7.9	1.0	2	2	ug/L
CB35613	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CB35613	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CB35613	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	13	1.0	5	5	ug/L
CB35613	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	7.9	1.0	2	2	ug/L
CB35613	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CB35614	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CB35614	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CB35614	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CB35615	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.4	0.70	0.7	0.7	ug/L
CB35615	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CB35615	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CB35615	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.4	0.70	1	1	ug/L
CB35615	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CB35616	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	0.90	0.70	0.7	0.7	ug/L
CB35616	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	6.6	1.0	2	2	ug/L
CB35616	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CB35616	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CB35616	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CB35616	\$8260DP25R	cis-1,2-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	6.1	1.0	5	5	ug/L
CB35616	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	6.6	1.0	2	2	ug/L
CB35617	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CB35617	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CB35617	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

October 01, 2018

SDG I.D.: GCB35613

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **VOA Narration**

#### **CHEM02 09/23/18-1:** CB35613, CB35614, CB35615, CB35616, CB35617

The following Initial Calibration compounds did not meet RSD% criteria: 1,2-Dibromo-3-chloropropane 23% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.025 (0.05), 2-Hexanone 0.052 (0.1), 4-Methyl-2-pentanone 0.061 (0.1), Acetone 0.029 (0.1), Acrolein 0.019 (0.05), Acrylonitrile 0.038 (0.05), Bromoform 0.069 (0.1), Methyl ethyl ketone 0.041 (0.1), Tetrahydrofuran (THF) 0.027 (0.05)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 1,1,2,2-Tetrachloroethane 0.262 (0.3), 1,2-Dibromo-3-chloropropane 0.025 (0.05), Acrolein 0.016 (0.05), Acrylonitrile 0.037 (0.05), Bromoform 0.069 (0.1), Tetrahydrofuran (THF) 0.025 (0.05)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.



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## NY Temperature Narration

October 01, 2018

SDG I.D.: GCB35613

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The samples in this delivery group were received at 1.6°C.  
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



## NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
Email: info@phoenixlabs.com Fax (860) 645-0823

**Client Services (860) 645-8726**

Customer: Environmental Business Consultants  
Address: 1808 Middle Country Road  
Ridge, NY 11961

Project: 34-11 Beach Channel Drive, Queens, NY  
Report to: Environmental Business Consultants  
Invoice to: Environmental Business Consultants

Cooler: Yes  No   
Cooler: IPK  ICE   
Temp: 10°C Pg 1 of 1

### Contact Options:

Fax:   
Phone: 631-504-6000  
Email: F.I.e.

This section **MUST** be completed with **Bottle Quantities.**

### Client Sample - Information - Identification

David Rukki Date: 9-19-18

**Matrix Code:**  
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Water  
OIL=Bulk L=Liquid

### PHOENIX USE ONLY

SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
350013	15 MW3	GW	9-19-18	8:15 X
350014	15 MW2	GW		9:23 X
350015	15 MW1	GW		10:30 X
350016	Duplicate	GW		X
350017	trip blank			X

Reninguished by: David Rukki Accepted by: John T. O'Neil

Date: 9-20-18

Time: 12:10

Turnaround:

- 1 Day\*
- 2 Days\*
- 3 Days\*
- 5 Days
- 10 Days
- Other \_\_\_\_\_

\*SURCHARGE APPLIES

- Res. Criteria
- Non-Res. Criteria
- Impact to GW Soil Cleanup Criteria
- GW Criteria
- NY EZ EDD (ASP)
- Other \_\_\_\_\_

### Comments, Special Requirements or Regulations:

Compare to GWP 375

Data Format
<input type="checkbox"/> Phoenix Std Report
<input checked="" type="checkbox"/> Excel
<input type="checkbox"/> PDF
<input type="checkbox"/> GIS/Key
<input type="checkbox"/> Equis
<input checked="" type="checkbox"/> NY 375 Residential Soil
<input type="checkbox"/> NY375 Residential Soil
<input type="checkbox"/> Restricted/Residential Commercial Industrial
<input type="checkbox"/> Other _____

State where samples were collected:  
NY

- NJ Reduced Deliv.\*
- NY Enhanced (ASP B)\*
- Other \_\_\_\_\_



ENVIRONMENTAL BUSINESS CONSULTANTS

January 22, 2019

Ms. Alicia A Barraza  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 2  
Division of Spill Prevention and Response Programs  
47-40 21<sup>st</sup> Street, Long Island City, New York 11101

**Re:    Quarterly Groundwater Sampling Report**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Queens, New York**  
**NYSDEC BCP Number: C241141**

Dear Ms. Barraza:

Please find the enclosed Quarterly Groundwater Sampling Report for the above referenced project for the fourth quarter of 2018. In accordance with the Site Management Plan (SMP), a round of groundwater sampling was performed on December 10, 2018 for 15MW1, 15MW2 and 15MW3.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Thomas Gallo  
Environmental Geologist

Kevin Waters  
Project Manager

Cc:    J. O'Connell, NYSDEC  
      A. Arker, Bedford Park Associates LLC  
      S. Arker, Bedford Park Associates LLC  
      C. Sosik, EBC  
      A. Czemerinski, AMC  
      J. Brooks, Phillips Nizer



ENVIRONMENTAL BUSINESS CONSULTANTS

1808 Middle Country Road  
Ridge, NY 11961

Phone      631.504.6000  
Fax          631.924.2870

**34-11 BEACH CHANNEL DRIVE SITE**  
**NYSDEC BCP Number C241141**  
**Project Status Report**  
**4<sup>th</sup> Quarter 2018**

**Reporting Summary**

<b>Report Date:</b>	December 28, 2018
<b>Reporting Period:</b>	4 <sup>th</sup> Quarter of 2018
<b>Site Status:</b>	Building is under construction, currently working on interior
<b>Work Performed this Quarter:</b>	December 10, 2018 – Groundwater sampling events performed on the three on-site monitoring wells.
<b>Remediation Status:</b>	No chemical oxidant events were performed during this period. A chemical oxidant injection was last performed on December 18, 2015, January 2, 2016 and July 5, 2016.

**Monitoring Program Summary**

<b>No. of Wells:</b>	3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Gauging Frequency:</b>	Quarterly for the three monitoring wells.
<b>Sampling Frequency:</b>	Quarterly, 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).
<b>Reporting Frequency:</b>	Groundwater Sampling Report (Quarterly).
<b>Groundwater Depth:</b>	5.5 ft (sidewalk grade)
<b>GW Flow Direction:</b>	Historically groundwater flow direction was to the west, but during the second quarter groundwater sampling event the groundwater flow direction was inconclusive.
<b>Monitoring Results:</b>	No product was detected within any of the monitoring wells.
<b>Sampling Results:</b>	VOCs were detected above NYSDEC GQS in all of the monitoring wells sampled during this event.

## OXIDANT INJECTIONS:

No chemical oxidant injections were performed during this period. Chemical Oxidant Injections were last performed on July 5, 2016.

## LIQUID LEVEL MONITORING:

Depths to water readings were taken from the 3 monitoring wells with an electronic interface meter prior to purging the wells for sampling. As previously noted, no Liquid Phase Hydrocarbons (LPH) was detected in any of the monitoring wells or injections points during this quarter.

Groundwater elevation, as determined from the depth to water readings and casing elevation, was used to approximate groundwater contours and the groundwater flow direction for the site (**Figure 2**). Groundwater elevation details are provided in **Table 1**. Historically groundwater flow direction was to the west, but during the fourth quarter groundwater sampling event the groundwater flow direction was inconclusive (**Figure 3**).

## GROUNDWATER SAMPLING:

The 4Q18 groundwater sampling event was performed on December 10, 2018. The groundwater samples were collected from 15MW1, 15MW2 and I5MW3 in accordance with the low-flow groundwater sampling procedures outlined within the SMP. See (**Figure 1**) for the location of all site monitoring wells and chemical oxidant injection wells. A copy of each of the Well Purging-Field Water Quality Measurements Form is attached as (**Appendix A**). The groundwater samples were picked up by laboratory dispatched courier and delivered to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260.

Copies of the laboratory reports are attached as (**Appendix B**). The laboratory results are summarized and compared to their appropriate standards/criteria in (**Table 2**) and to previous sampling events in (**Table 3A-3C**).

## GROUNDWATER SAMPLING RESULTS:

15MW1 – The VOC benzene (1.4 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW1 decreased from 22.58 µg/L to 9.13 µg/L and CVOC concentrations have decreased from 21.74 µg/L to 2.70 µg/L when compared to the 3Q18 sampling event.

15MW2 – The VOC vinyl chloride (6 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW2 have increased from 8.74 µg/L to 22.66 µg/L and CVOC concentrations have increased from 2.47 µg/L to 8.81 µg/L when compared to the 3Q18 sampling event.

15MW3 - The VOC vinyl chloride (2 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW3 increased from 6.77 µg/L to 9.88 µg/L and CVOC concentrations have increased from 3.84 µg/L to 5.90 µg/L when compared to the 3Q18 sampling event.

## GROUNDWATER VOC CONCENTRATION TRENDS:

As depicted in the concentration graphs (**Graphs 1-3**), remedial efforts from 2015 through 2016 resulted in a significant reduction in CVOC concentrations in the current focus area as defined by wells 15MW1, 15MW2 and 15MW3. The total VOC and CVOC concentration within 15MW1 decreased during this sampling event, with only benzene reported above NYSDEC GQS. The total VOC and CVOC concentrations within 15MW2 and 15MW3 increased during this sampling event. Although the CVOC and total VOC concentrations increased when compared to the 3Q18 sampling event the overall VOC concentrations are significantly lower than the pre-treatment concentrations.

## FUTURE PLANS / RECOMMENDATIONS:

Remedial efforts at the Site have been successful in significantly reducing the overall chlorinated VOCs in groundwater. Water quality is expected to continue to improve over time. The rebound of chlorinated VOCs that had been observed in 15MW3 during the 4Q16 and 1Q17 sampling has continued on a downward trend since the 1Q17 sampling event with vinyl chloride being reported at or above the NYSDEC GQS during the 4Q18 sampling event.

Vinyl chloride was the only CVOC reported at or above NYSDEC GQS in 15MW2 and 15MW3. Benzene was reported just above the NYSDEC GQS in 15MW1. Although VOCs were detected above NYSDEC GQS in all of the wells during this sampling event, the levels reported were either detected slightly above or at their respective GQS. EBC therefore requests the termination of groundwater monitoring based on the low levels of VOC concentrations observed during the 3Q18 and the 4Q18 sampling events.

## **TABLES**

34-11 Beach Channel Drive Site  
34-11 Beach Chanel Drive, Far Rockaway, NY

Table 1  
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 12/10/2018	DTP	PT	GW ELV 12/10/2018
15MW1	1	30	15 to 30	6.26	93.74	5.82	-	-	87.92
15MW2	1	30	15 to 30	5.40	94.6	4.75	-	-	89.85
15MW3	1	30	15 to 30	5.90	94.10	6.70	-	-	87.40

TABLE 3A  
 34-11 Beach Channel Drive Site  
 34-11 Beach Channel Drive, Far Rockaway, New York  
 Groundwater Analytical Results  
 Volatile Organic Compounds  
 15MW1

COMPOUND	NYSDEC Ambient Water Quality Standards µg/L	15MW1		15MW2		15MW3	
		12/10/2018		12/10/2018		12/10/2018	
		Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-Chloropropane	0.04	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		< 100	100	< 100	100	< 100	100
2-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Hexanone		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Isopropyltoluene	5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
2,2-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone	<b>4.6</b>	5.0	<b>8.9</b>	5.0	<b>3.4</b>	5.0	
Acrolein	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	<b>1</b>	<b>1.4</b>	0.70	<b>0.35</b>	0.70	<b>0.58</b>	0.70
Bromobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon Tetrachloride	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	<b>1.1</b>	1.0	<b>2.5</b>	1.0	<b>3.3</b>	1.0
cis-1,3-Dichloropropene		< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethyl Benzene	5	< 1.0	1.0	<b>0.36</b>	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m/p-Xylenes	5	< 1.0	1.0	<b>1.4</b>	1.0	< 1.0	1.0
Methyl ethyl ketone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl tert-butyl Ether	10	<b>0.43</b>	1.0	< 1.0	1.0	< 1.0	1.0
Methylene Chloride	5	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 1.0	1.0	<b>1.9</b>	1.0	< 1.0	1.0
n-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	5	< 1.0	1.0	<b>0.94</b>	1.0	< 1.0	1.0
p-Isopropyltoluene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tert-butyl alcohol		< 50	50	< 50	50	< 50	50
tert-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	<b>1.6</b>	5.0	<b>0.31</b>	5.0	<b>0.6</b>	5.0
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorofluoromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	< 1.0	1.0	<b>6</b>	1.0	<b>2</b>	1.0
Total Chlorinated VOC			<b>2.70</b>		<b>8.81</b>		<b>5.90</b>
Total Petroleum VOC			<b>6.43</b>		<b>13.85</b>		<b>3.98</b>
Total VOCs			<b>9.13</b>		<b>22.66</b>		<b>9.88</b>

Notes:

RL- Reporting Limit

**Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard**

**TABLE 3A**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW1**

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1																							
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018		9/19/2018		12/10/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
1,1-Dichloroethene	5	8.2	5.0	1.1	1.0	0.78	1.0	<1.0	1.0	1.4	5.0	0.58	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloropropene	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2,3-Trichlorobenzene	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2-Dibromethane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<25	25	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<4.7	4.7	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.80	0.80	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25	<0.25	0.25		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	4	4	<3.0	3.0	<1.0	1.0	<1.0	1.0	0.35	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
2-Hexanone (Methyl Butyl Ketone)	<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5			
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Methyl-2-Pentanone	<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<13	13	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5			
Acetone	<50	50	3.5	5.0	4.3	5.0	<5.0	5.0	<25	25	5.7	5.0	<5.0	5.0	<5.0	5.0	3.2	5.0	<10	10	4.6	5.0			
Acrolein	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<2.5	2.5	<0.80	0.80	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60			
Acrylonitrile	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Benzene	1	<5.0	5.0	1.1	0.70	0.84	0.70	0.25	0.70	<1.3	1.3	0.56	0.70	1.1	0.70	1.8	0.70	1.70	0.70	1.5	0.70	0.84	0.70		
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromodichloromethane	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
Bromoform	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<25	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	0.29	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroform	7	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloromethane	60	<5.0	5.0	<5.0	5.0	0.74	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	6,000	400	300	20	230	10	51	5.0	690	13	300	20	76	10	17	1.0	5.40	1.0	1.8	1.0	1.1	1.0		
cis-1,3-Dichloropropene	<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<13	13	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40			
Dibromochloromethane	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0</														

**TABLE 3B**  
**34-11 Beach Channel Drive Site**  
**34-11 Beach Channel Drive, Far Rockaway, New York**  
**Groundwater Analytical Results**  
**Volatile Organic Compounds**  
**15MW2**

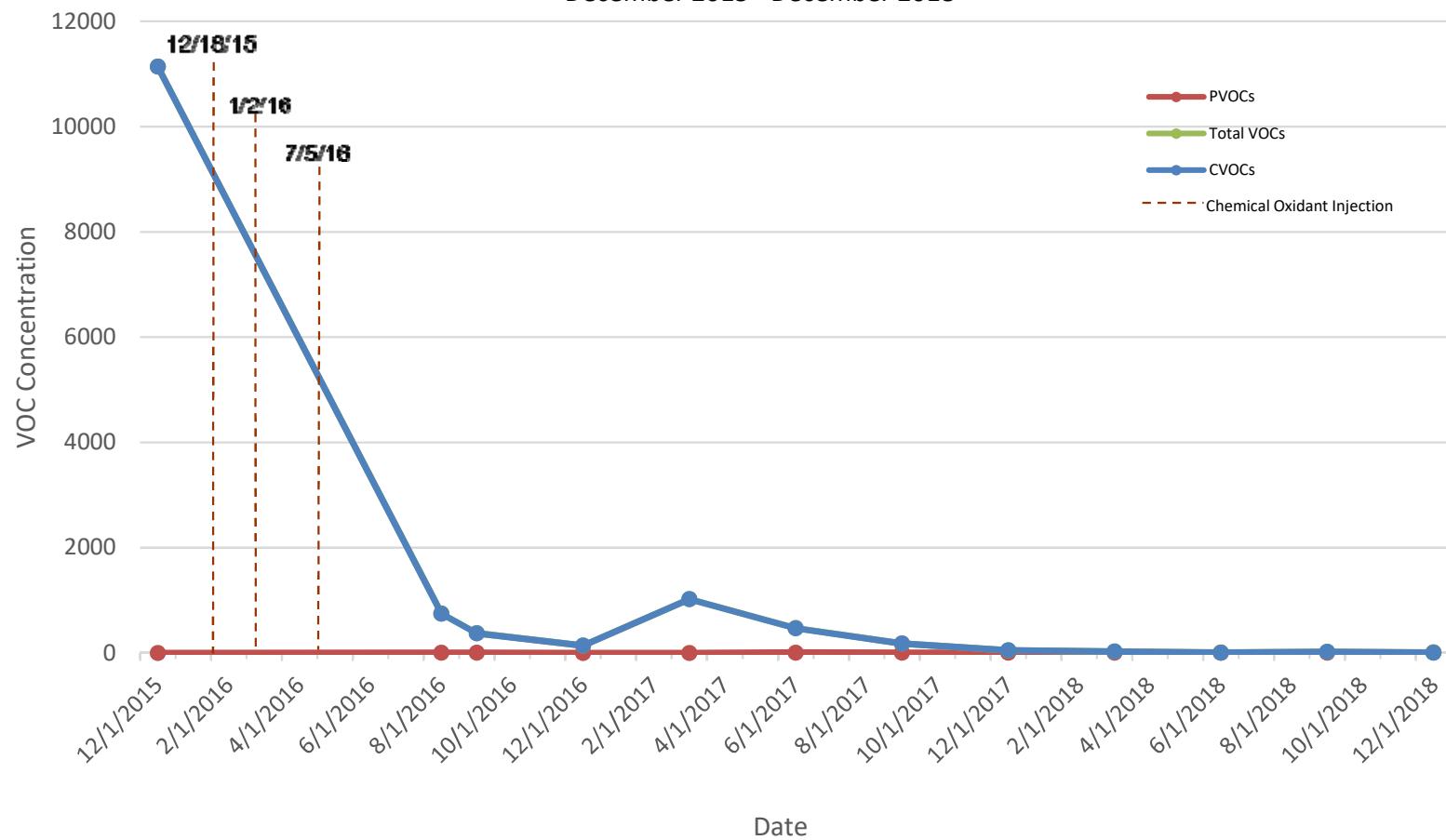
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW2																							
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018		9/19/2018		12/10/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.3	1.3	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
1,1-Dichloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloropropene	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2,3-Trichlorobenzene	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<0.25	0.25	<0.25	0.25	<1.0	1.0	<1.0	1.0			
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<0.25	0.25	<0.25	0.25	<0.25	0.25	<1.3	1.3	<0.25	0.25	<1.0	1.0	<0.25	0.25	<0.25	0.25	<0.25	0.25		
1,2,4-Trichlorobenzene	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<0.50	0.50	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	<10	10	<1.0	1.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	<2.5	2.5	<0.30	0.30	<0.25	0.25	<0.25	0.25	<0.50	0.50	<0.50	0.50		
1,2-Dibromethane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<0.25	0.25	<0.25	0.25	<5.0	5.0	<1.3	1.3	<0.25	0.25	<1.0	1.0	<0.25	0.25	<0.25	0.25			
1,2-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<4.7	4.7	<1.0	1.0	<0.60	0.60	<1.0	1.0	<1.0	1.0		
1,2-Dichloroethane	0.6	<5.0	5.0	<0.60	0.60	<0.60	0.60	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.60	0.60	<1.0	1.0	<0.60	0.60	<0.60	0.60	<0.60	0.60		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.3	1.3	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<b>4.40</b>	1.0	<1.0	1.0	<5.0	5.0	<3.0	3.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	100	<100	100	
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<0.60	0.60	<0.60	0.60	<0.60	0.60	<2.5	2.5	<0.60	0.60	<1.0	1.0	<0.60	0.60	<0.60	0.60	<0.60	0.60		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
2-Hexanone (Methyl Butyl Ketone)	<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5	<50	50	<5.0	5.0			
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Methyl-2-Pentanone	<50	50	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<50	50	<13	13	<2.5	2.5	<2.5	2.5	<5.0	5.0			
Acetone	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<17.00	25	<b>16</b>	5.0	<5.0	5.0	<b>15</b>	5.0	<10	10	<b>8.9</b>	5.0	
Acrolein	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	
Acrylonitrile	5	<50	50	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<13	13	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Benzene	1	<5.0	5.0	1.10	0.70	<b>0.80</b>	0.70	<b>0.77</b>	7.0	<b>0.74</b>	7.0	0.70	<5.1	5.0	<1.3	1.3	<b>0.38</b>	0.70	<0.70	0.70	<0.70	0.70	<b>0.35</b>	0.70	
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromodichloromethane	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
Bromoform	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<25	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Bromomethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloromethane	60	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	<b>1400</b>	5.0	<b>25</b>	1.0	<b>10</b>	5.0	<b>5.50</b>	5.0	<b>1.0</b>	5.0	<b>12</b>	20	<b>440</b>	20	<b>25</b>	1.0	<b>5.5</b>	1.0	<b>3.7</b>	1.0	<b>0.87</b>	1.0	<b>2.5</b>	1.0
cis-1,3-Dichloropropene	<5.0	5.0	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<5.0	5.0	<1.3	1.3	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40			
Dibromochloromethane	<20	20	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<20	20</													

TABLE 3C  
 34-11 Beach Channel Drive Site  
 34-11 Beach Channel Drive, Far Rockaway, New York  
 Groundwater Analytical Results  
 Volatile Organic Compounds  
 15MW3

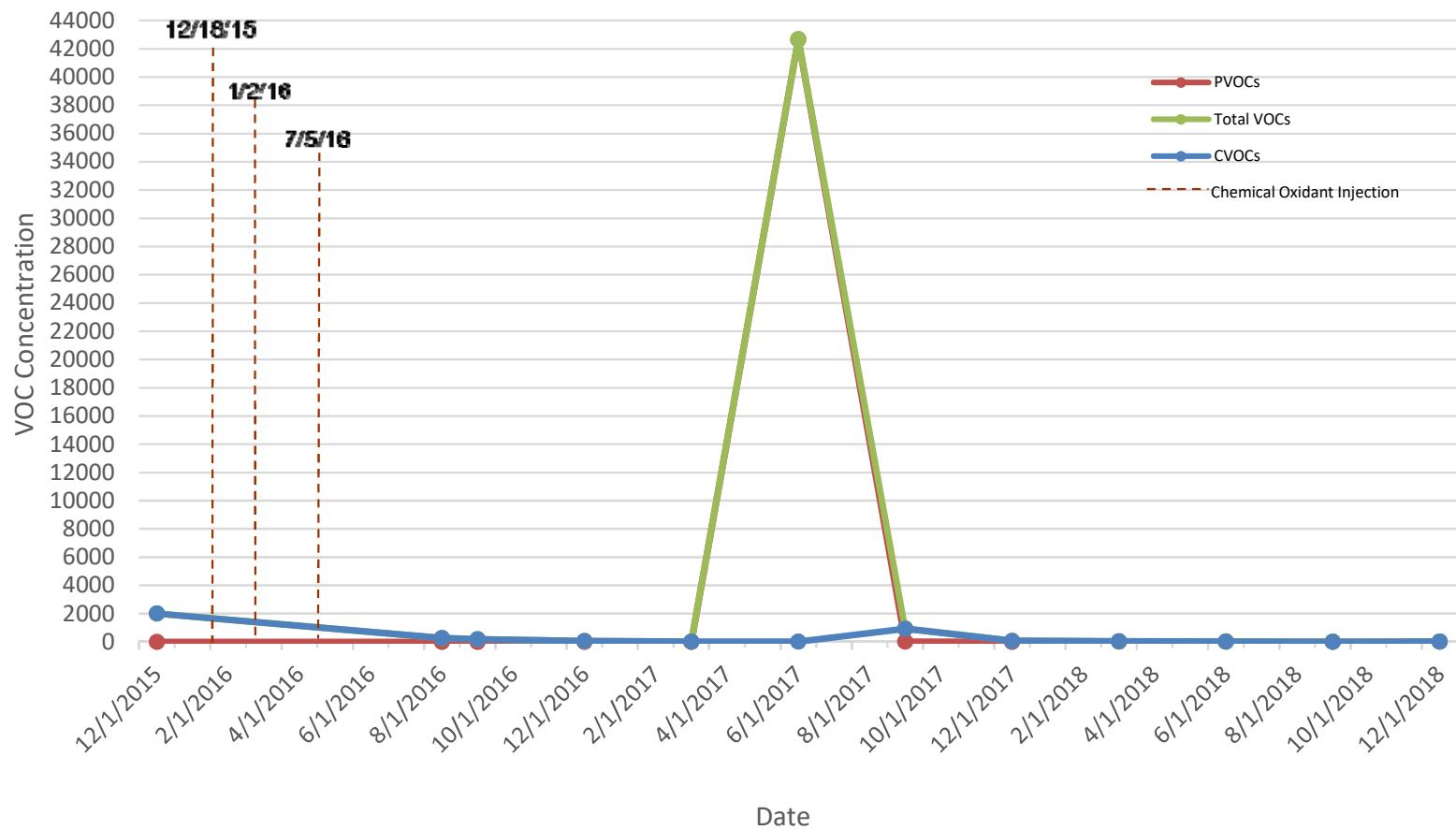
Compound	NYSDEC Groundwater Quality Standards µg/L	15MW3																							
		12/18/2015		8/5/2016		9/20/2016		12/20/2016		3/27/2017		6/8/2017		9/18/2017		12/13/2017		3/23/2018		6/15/2018		9/19/2018		12/10/2018	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL		
1,1,1,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	<5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,1-Trichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0		
1,1,2,2-Tetrachloroethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1,2-Trichloroethane	1	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<5.0	5.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloroethane	5	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	<5.0	5.0		
1,1-Dichloroethene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	51	5.0	110	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,1-Dichloropropane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2,3-Trichlorobenzene	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0	<2.0	2.5	<1.0	1.0	<1.0	1.0			
1,2,3-Trichloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5	<2.5	2.5		
1,2,4-Trichlorobenzene	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
1,2,4-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	0.32	1.0	<1.0	1.0	<0.5	0.50	<1.0	1.0	<1.0	1.0		
1,2-Dibromo-3-chloropropane	0.04	<5.0	5.0	<1.0	1.0	<1.0	1.0	<10	10	<10	10	-	-	<0.50	0.50	<0.50	0.50	<0.25	0.25	<0.50	0.50	<0.50	0.50		
1,2-Dibromoethane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<0.25	0.25	<0.25	0.25	<1.0	1.0	<0.25	0.25	<1.0	1.0			
1,2-Dichlorobenzene	5	<4.0	4.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<0.60	0.60	<1.0	1.0	<1.0	1.0		
1,2-Dichloroethane	0.6	<3.0	3.0	<0.60	0.60	<0.60	0.60	<10	10	<10	10	-	-	<0.60	0.60	<0.60	0.60	<1.0	1.0	<0.60	0.60	<1.0	1.0		
1,2-Dichloropropane	0.94	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3,5-Trimethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichlorobenzene	5	<3.0	3.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,3-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-Dichlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
1,4-dioxane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	100	<100	100		
2,2-Dichloropropane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
2-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<2.5	2.5	<1.0	1.0	<2.5	2.5		
2-Hexanone (Methyl Butyl Ketone)	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50	-	-	<2.5	2.5	<2.5	2.5	<5.0	5.0	<5.0	5.0	<5.0	5.0			
2-Isopropyltoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Chlorotoluene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
4-Methyl-2-Pentanone	<13	13	<2.5	2.5	<2.5	2.5	<50	50	<50	50	-	-	<2.5	2.5	<2.5	2.5	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Acetone	15	25	<5.0	5.0	2.7	5.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	2.8	5.0	<10	10	3.4	5.0			
Acrolein	<13	13	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Acrylonitrile	5	<13	13	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Benzene	1	7.5	3.5	0.49	0.70	0.75	0.70	<5.0	5.0	<5.0	5.0	-	-	2.2	0.70	1.1	0.70	0.6	0.70	0.73	0.70	1.4	0.70	0.58	0.70
Bromobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromochloromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Bromodichloromethane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Bromoform	<25	25	<5.0	5.0	<5.0	5.0	<50	50	<50	50	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0			
Bromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Carbon Disulfide	60	2.3	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	0.29	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Carbon tetrachloride	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Chlorobenzene	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroethane	5	20	25	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloroform	7	<5.0	5.0	<5.0	5.0	<5.0	5.0	<7.0	7.0	<7.0	7.0	-	-	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
Chloromethane	60	5.0	0.3	5.0	5.0	0.5	5.0	<5.0	5.0	<5.0	5.0	-	-	0.41	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0		
cis-1,2-Dichloroethene	5	430	20	72	10	24	1.0	11,000	100	21,000	250	-	-	29	20	26	1.0	9	1.0	6	1.0	3.4	1.0	3.0	
cis-1,3-Dichloropropene	<2.0	2.0	<0.40	0.40	<0.40	0.40	<5.0	5.0	<5.0	5.0	-	-	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40			
Dibromochloromethane	<5.0	5.0	<1.0	1.0	<1.0	1.0	<20	20	<20	20	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0			
Dibromomethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Dichlorodifluoromethane	5	<5.0	5.0	<1.0	1.0	<1.0	1.0	<5.0	5.0	<5.0	5.0	-	-	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0		
Ethylbenzene	5	<5.0	5.0	<1.0	1.0	<1.0																			

## GRAPHS

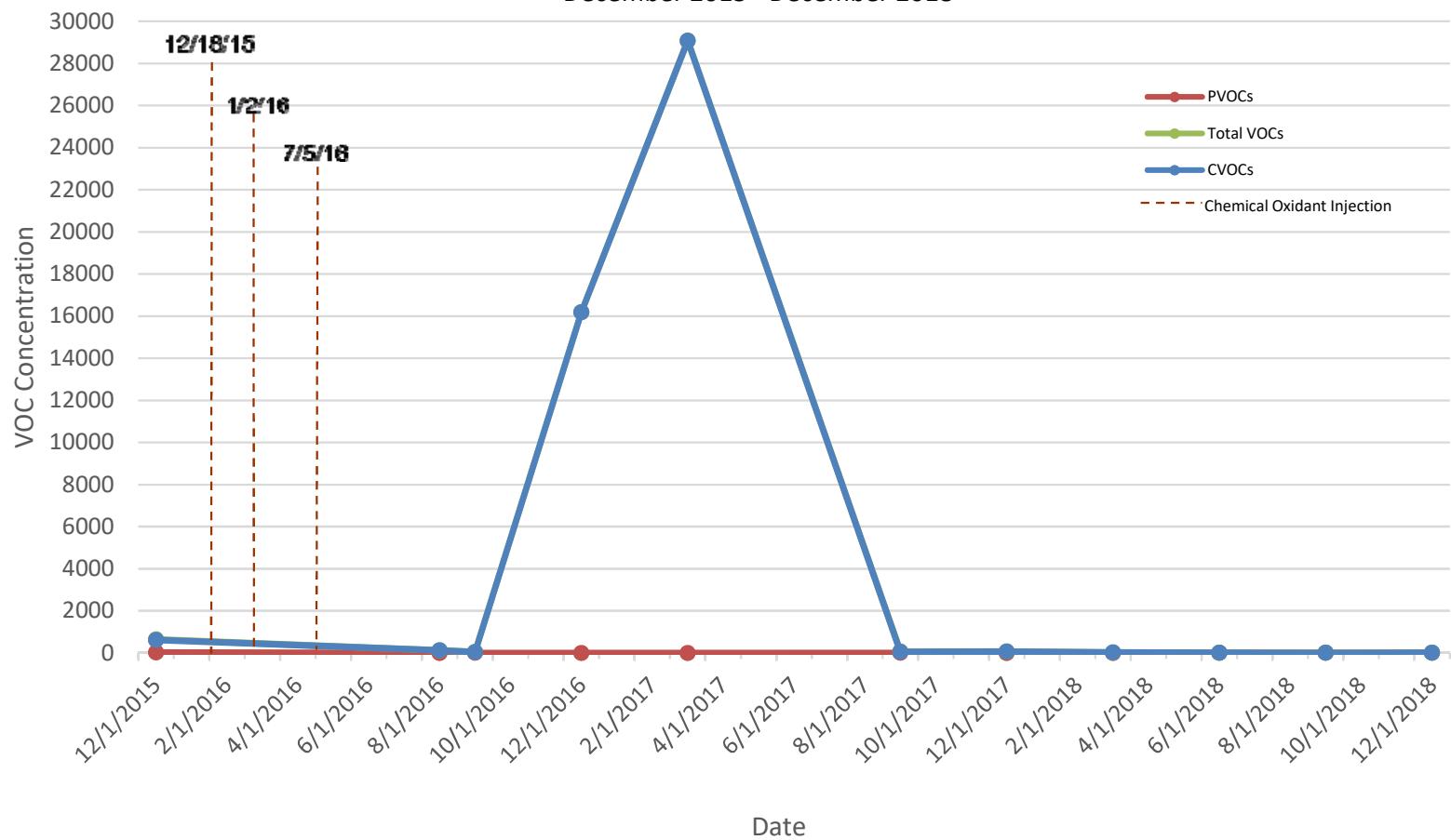
Graph 1  
15MW1 VOCs  
34-11 Beach Channel Drive, Queens, NY  
December 2015 - December 2018



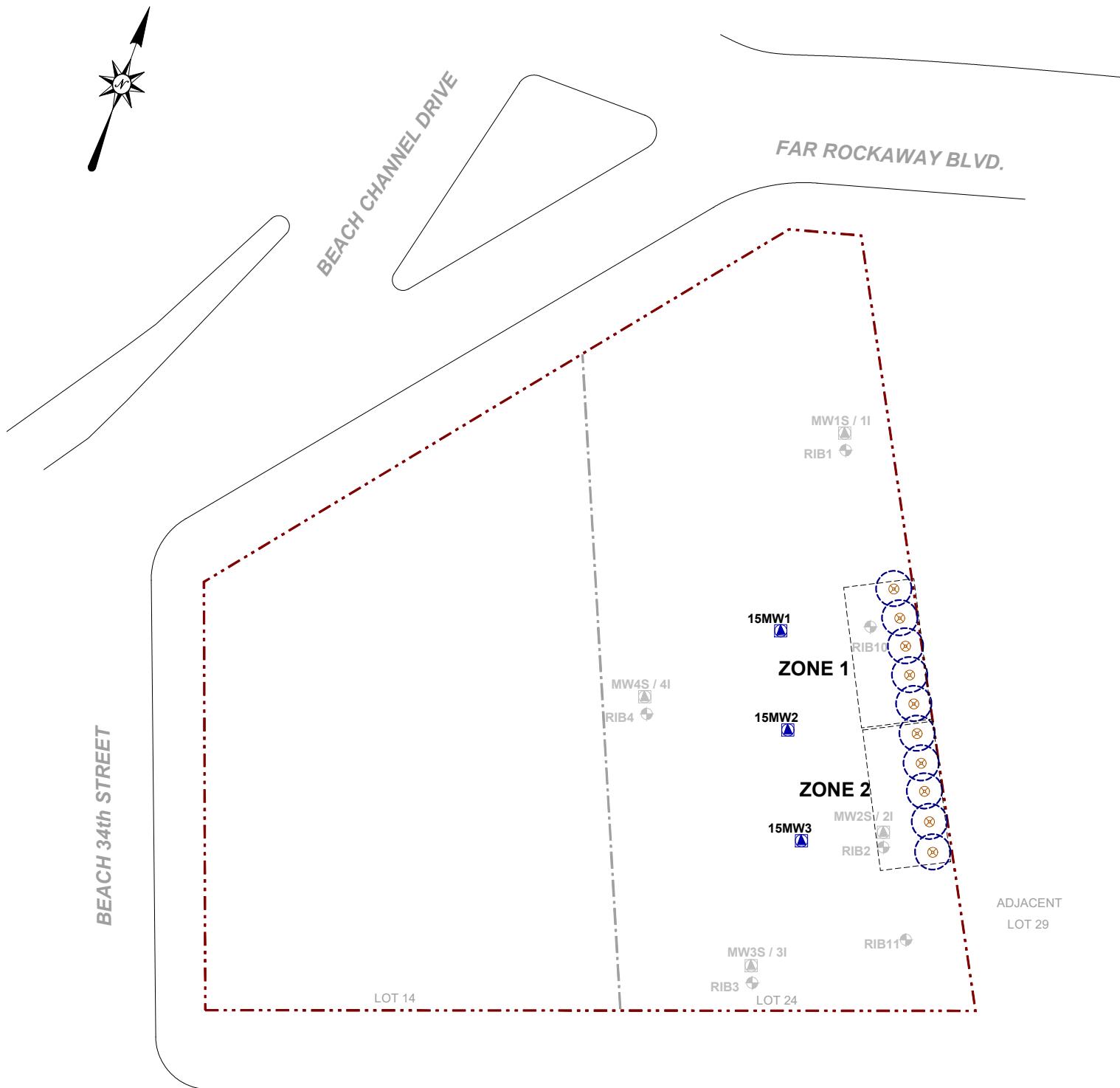
Graph 2  
15MW2 VOCs  
34-11 Beach Channel Drive, Queens, NY  
December 2015 - December 2018



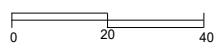
Graph 3  
15MW3 VOCs  
34-11 Beach Channel Drive, Queens, NY  
December 2015 - December 2018



## **FIGURES**



**SCALE**



1 inch = 40 feet

**KEY**



Site Boundary



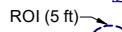
RI Monitoring Well



RI Soil Boring

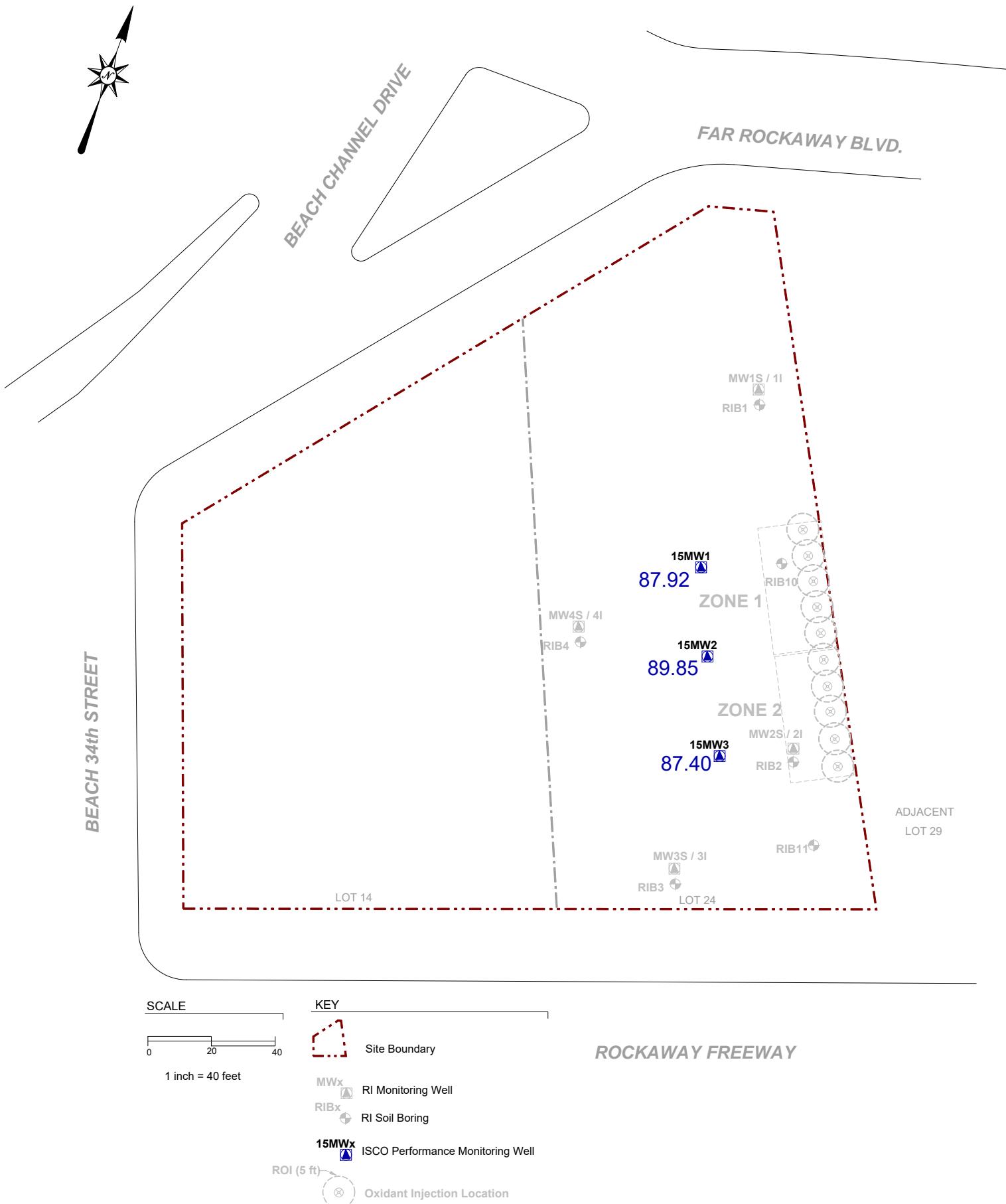


ISCO Performance Monitoring Well



ROI (5 ft) Oxidant Injection Location

**ROCKAWAY FREEWAY**





LEGEND:

- SHALLOW WELLS WITH GROUNDWATER RELATIVE ELEVATION (FEET)
  - MW-1S (15.86)
- ← GROUNDWATER FLOW DIRECTION
- 16.0 — WATER TABLE CONTOURS (WESTERN WELLS)
- - - 16.1 - - - WATER TABLE CONTOURS (EASTERN WELLS)

FPM GROUP

FIGURE 3  
JANUARY 2015  
SHALLOW GROUNDWATER  
RELATIVE ELEVATION CONTOURS

34-11 BEACH CHANNEL DRIVE SITE  
FAR ROCKAWAY, QUEENS, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date 2/9/2015

## **APPENDIX A**

### **WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORMS**







## GROUNDWATER PURGE / SAMPLE LOGS

34-11 Beach Channel Drive

### *ENVIRONMENTAL BUSINESS CONSULTANTS*

Well I.D.: 15Mw3

Well Depth (from TOC): 28.4ft

Static Water Level (from TOC): 6.7ft

Height of Water in Well: 31.7ft

Gallons of Water per Well Volume: 0

Flow Rate: 400ml/min.

Date: 12-10-18

Equipment:  
GeoPump, Hanor

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Transparency	Comments
02.10pm		0.0	6.90	5.98	13.08	1.50	191	Turbid, brown
02.11pm		0.5	6.84	5.77	14.01	0.0	172	Muddy, light brown
02.12pm		1.1	6.83	5.41	14.42	0.0	163	Turbid, light brown
02.13pm		2.0	6.84	5.21	14.40	0.0	155	Clear
02.14pm		3.1	6.84	5.23	14.31	0.0	82.1	Clear
02.15pm		3.9	6.84	5.21	14.27	0.0	65.5	Clear
02.16pm		4.8	6.85	5.10	14.26	0.0	43.0	Clear
02.17pm		5.6	6.84	5.12	14.22	0.0	45.2	Clear / simple

## **APPENDIX B**

### **Laboratory Reports**



Monday, December 17, 2018

Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS  
Sample ID#s: CC12366 - CC12369

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## SDG Comments

December 17, 2018

SDG I.D.: GCC12366

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### 8260 Volatile Organics:

1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/FID method 504 or 8011 to achieve this criteria.

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: TC  
Received by: CP  
Analyzed by: see "By" below

Date

12/10/18  
12/11/18 16:40

Time

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS  
Client ID: 15MW1

### Laboratory Data

SDG ID: GCC12366

Phoenix ID: CC12366

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	4.6	JS	5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Benzene	1.4	0.70	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
cis-1,2-Dichloroethene	1.1	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Ethylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
m&p-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	0.43	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C
Naphthalene	ND		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
o-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,2-Dichloroethene	1.6	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Vinyl chloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	100			%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	97			%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	99			%	1	12/13/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99			%	1	12/13/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

December 17, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: TC  
Received by: CP  
Analyzed by: see "By" below

Date

12/10/18  
12/11/18 16:40

Time

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS  
Client ID: 15MW2

### Laboratory Data

SDG ID: GCC12366

Phoenix ID: CC12367

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	8.9	S	5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Benzene	0.35	J	0.70	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
cis-1,2-Dichloroethene	2.5		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Ethylbenzene	0.36	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
m&p-Xylene	1.4		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C
Naphthalene	1.9		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
o-Xylene	0.94	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,2-Dichloroethene	0.31	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Vinyl chloride	6.0		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	99			%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	97			%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	99			%	1	12/13/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98			%	1	12/13/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

December 17, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: TC  
Received by: CP  
Analyzed by: see "By" below

Date

12/10/18  
12/11/18 16:40

Time

SDG ID: GCC12366

Phoenix ID: CC12368

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS  
Client ID: 15MW3

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	3.4	JS	5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	ug/L	1	12/13/18	MH	SW8260C	
Benzene	0.58	J	0.70	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
cis-1,2-Dichloroethene	3.3		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Ethylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
m&p-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C
Naphthalene	ND		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
o-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,2-Dichloroethene	0.60	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Vinyl chloride	2.0		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>									
% 1,2-dichlorobenzene-d4	99			%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	95			%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	97			%	1	12/13/18	MH	70 - 130 %	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99			%	1	12/13/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

December 17, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



## Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.  
Environmental Business Consultants  
1808 Middle Country Rd  
Ridge NY 11961-2406

### Sample Information

Matrix: GROUND WATER  
Location Code: EBC  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: TC  
Received by: CP  
Analyzed by: see "By" below

Date

12/10/18  
12/11/18 16:40

Time

SDG ID: GCC12366

Phoenix ID: CC12369

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS  
Client ID: TRIP BLANKS

### Laboratory Data

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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### Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/11/18	MH	SW8260C
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/11/18	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
2-Hexanone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Acrylonitrile	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/11/18	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Bromodichloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Bromoform	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Bromomethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Carbon Disulfide	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Chlorobenzene	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Chloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Chloroform	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Chloromethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/11/18	MH	SW8260C
Dibromochloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	12/11/18	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Methylene chloride	ND	3.0	1.0	ug/L	1	12/11/18	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/11/18	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
trans-1,2-Dichloroethene	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/11/18	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>								
% 1,2-dichlorobenzene-d4	100			%	1	12/11/18	MH	70 - 130 %
% Bromofluorobenzene	93			%	1	12/11/18	MH	70 - 130 %
% Dibromofluoromethane	102			%	1	12/11/18	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	102			%	1	12/11/18	MH	70 - 130 %
<b><u>1,4-dioxane</u></b>								
1,4-dioxane	ND	100	50	ug/l	1	12/11/18	MH	SW8260C
<b><u>Volatiles</u></b>								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/11/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

TRIP BLANK INCLUDED.

#### Volatile Comment:

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.

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Phyllis Shiller, Laboratory Director

December 17, 2018

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Monday, December 17, 2018

Criteria: NY: 375GWP, GW

State: NY

# Sample Criteria Exceedances Report

## GCC12366 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC12366	\$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.4	0.70	0.7	0.7	ug/L
CC12366	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12366	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12366	\$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.4	0.70	1	1	ug/L
CC12366	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12367	\$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	6.0	1.0	2	2	ug/L
CC12367	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12367	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12367	\$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	6.0	1.0	2	2	ug/L
CC12367	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12368	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12368	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12368	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12369	\$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12369	\$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12369	\$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
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Tel. (860) 645-1102 Fax (860) 645-0823



## NY Temperature Narration

December 17, 2018

SDG I.D.: GCC12366

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The samples in this delivery group were received at 3.8°C.  
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

