



April 7, 2020

Mr. Daniel Lanners  
Project Manager  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233-7014

via email: [daniel.lanners@dec.ny.gov](mailto:daniel.lanners@dec.ny.gov)

Subject: Former M. Argueso and Company, Inc.  
441 & 442 Waverly Avenue, Mamaroneck, NY  
Site #C360108  
1st Semiannual 2020 Groundwater Monitoring Report  
STERLING File #28012 (Task 995)

Dear Mr. Lanners,

Sterling Environmental Engineering P.C. (STERLING) performed semiannual groundwater monitoring at the subject site on March 9, 2020. Groundwater monitoring was conducted in accordance with the approved Site Management Plan (SMP) dated October 2013, and the modifications approved by the New York State Department of Environmental Conservation (NYSDEC) dated March 7, 2014 and April 29, 2015.

### **Scope & Background**

In June 2013, Hydrogen Release Compound (HRC) was injected into the subsurface surrounding wells GZ-22D and GZ-23D. Quarterly groundwater monitoring was conducted for one (1) year after the injection was completed. Semiannual monitoring was approved by the NYSDEC starting in 2015. This report presents the results of the first semiannual groundwater monitoring event for 2020, which included: groundwater gauging of eight (8) groundwater monitoring wells, calculation of groundwater flow direction, and sampling of six (6) groundwater monitoring wells for analysis of volatile organic compounds (VOC) by United States Environmental Protection Agency (USEPA) Method 8260C.

### **Groundwater Flow Direction**

The estimated groundwater flow in the deep overburden hydrogeologic unit is to the north (Figure 1), which is consistent with historical conditions. Monitoring well measuring point elevations were verified using a sub-inch accuracy Trimble GPS to ensure continued accurate groundwater elevation measurements. The deep overburden groundwater elevation decreased an average of 0.23 feet compared to groundwater elevation measurements collected in December 2019.

### **Groundwater Monitoring**

Groundwater samples were collected from four (4) onsite monitoring wells (GZ-21D, GZ-22D, GZ-23D, and B6-OWD) and two (2) offsite monitoring wells (OSMW-3 and OSMW-4). The locations of the groundwater monitoring wells are presented in Figure 1. Groundwater samples were analyzed for TCL VOCs via USEPA Method 8260C. Groundwater samples were collected in accordance with the SMP and

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submitted to Alpha Analytical, Inc. of Westborough, Massachusetts under chain-of-custody protocol for analysis. Samples were shipped in a cooler with ice and analyzed within applicable holding times. The Daily Field Report and Sampling Data Sheets are attached.

Results of the laboratory analysis for chlorinated VOCs (cVOC) and comparison to Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Water Quality Standards and Guidance Values are summarized in Table 1. The laboratory analytical report is attached.

Since the injections, groundwater quality has significantly improved. Concentrations of PCE and TCE have decreased and are remaining stable in monitoring wells GZ-21D, GZ-22D, GZ-23D, and OSMW-4. Degradation compounds initially increased following injection and subsequently decreased with the majority of cVOCs below groundwater standards. The treatment has been successful in reducing volatile compounds in groundwater, and groundwater quality improvement over time is expected to continue.

The following sections detail data trends in each deep zone monitoring well based on data summarized in Table 1:

### **Onsite Wells**

#### **GZ-21D**

Since 2014, concentrations of all VOCs steadily decreased through November 2017 to below standards with the exception of 1,2-Dichloroethane (1,2-DCA). Beginning in 2018, concentrations of the following cVOCs have increased to levels above standards: 1,2-DCA, cis-1,2-Dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). In March 2020, concentrations of VC decreased below standards. Total cVOCs decreased from the previous monitoring event in December 2019 and are lower than the highest levels in 2014. Concentrations of tetrachloroethylene (PCE) and trichloroethylene (TCE) remain below standards.

#### **GZ-22D**

PCE and TCE concentrations have decreased below standards for the last eleven (11) sampling events. All other cVOCs have decreased to levels below standards with the exception of 1,2-DCA, trans-1,2-Dichloroethene (trans-1,2-DCE) and VC. Total cVOCs have remained relatively stable since March 2019.

#### **GZ-23D**

PCE and TCE concentrations decreased significantly in early 2014. TCE concentrations gradually increased through 2016 and have since remained generally stable. PCE concentrations fluctuated through 2016 and have since remained stable. VC, a degradation product of PCE and TCE, increased following the injections and subsequently decreased through 2016 and have since remained stable. Cis-1,2-DCE concentrations increased following the injections, decreased through 2016, and have since remained stable. Total cVOCs have remained relatively stable and lower than the highest levels prior to the injections.

#### **B6-OWD**

Following an initial increase in cVOC concentrations immediately after the injections, all cVOCs decreased to below standards from November 2014 through June 2017. Since November 2017, PCE, TCE, 1,2-DCA, cis-1,2-DCE, and trans-1,2-DCE concentrations have increased above standards. Total cVOCs have increased from the previous monitoring event in December 2019.

## **Offsite Wells**

Offsite wells OSMW-3 and OSMW-4 are located upgradient of the treatment zone to determine upgradient groundwater quality.

### **OSMW-3**

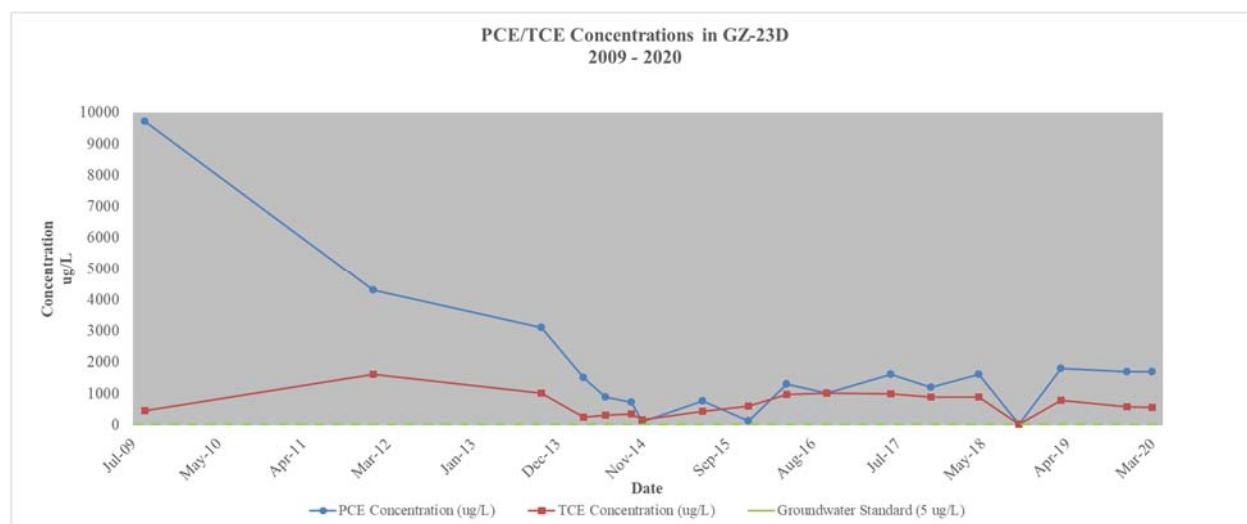
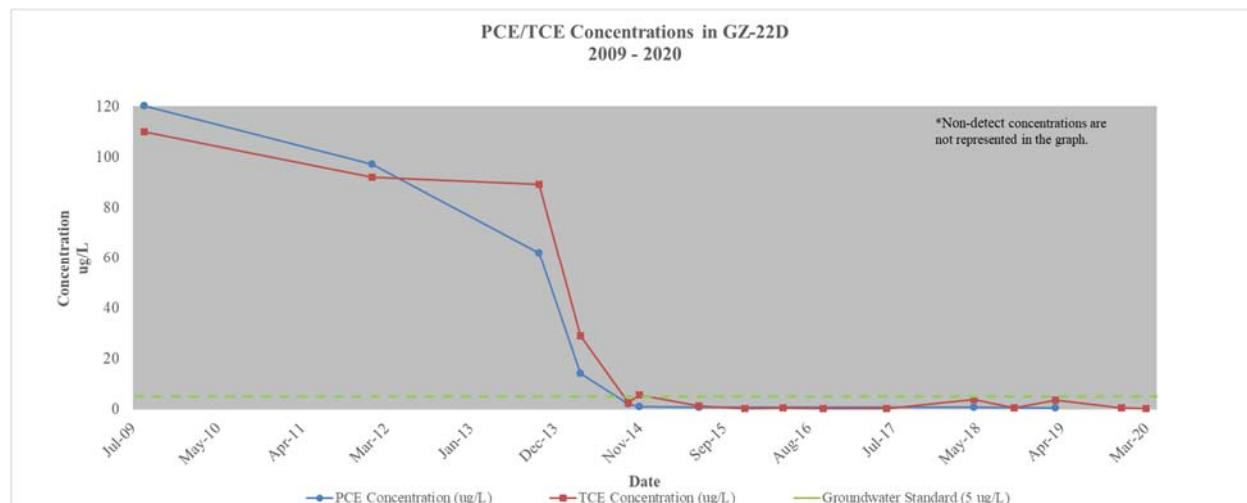
PCE and TCE concentrations initially increased following treatment and steadily decreased from 2014 through May 2018. In October 2018, both PCE and TCE concentrations increased and have remained relatively stable. Total cVOCs have decreased from the previous monitoring event in December 2019.

### **OSMW-4**

All cVOCs have been below groundwater standards since 2014.

## **Injection Well Data Trends**

The graphs below depict PCE and TCE concentrations in monitoring wells GZ-22D and GZ-23D over time (2009 - 2020). Initially, monitoring wells GZ-22D and GZ-23D contained the highest concentrations of PCE and TCE in onsite groundwater and were therefore selected for remediation.



## Conclusions and Recommendations

- Overall groundwater quality has improved with the majority of cVOCs below groundwater standards. Based on the long history of groundwater monitoring and stabilizing conditions, STERLING recommends the frequency of sampling be reduced to annual. The treatment has been successful in reducing volatile compounds in groundwater, and groundwater quality improvement over time is expected to continue.
- OSMW-4 has consistently been reported at levels below groundwater standards; therefore, STERLING recommends sampling of this well be discontinued.
- cVOC concentrations in monitoring well B6-OWD increased above standards for the past six (6) monitoring events after being below standards for six (6) consecutive events.
- Groundwater monitoring data collected subsequent to the 2013 injections indicate an overall decrease in the concentration of cVOCs. Therefore, the remedy continues to be effective at this site.
- The next semiannual sampling event is scheduled for the fall of 2020.

Please contact me should you have any questions.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.

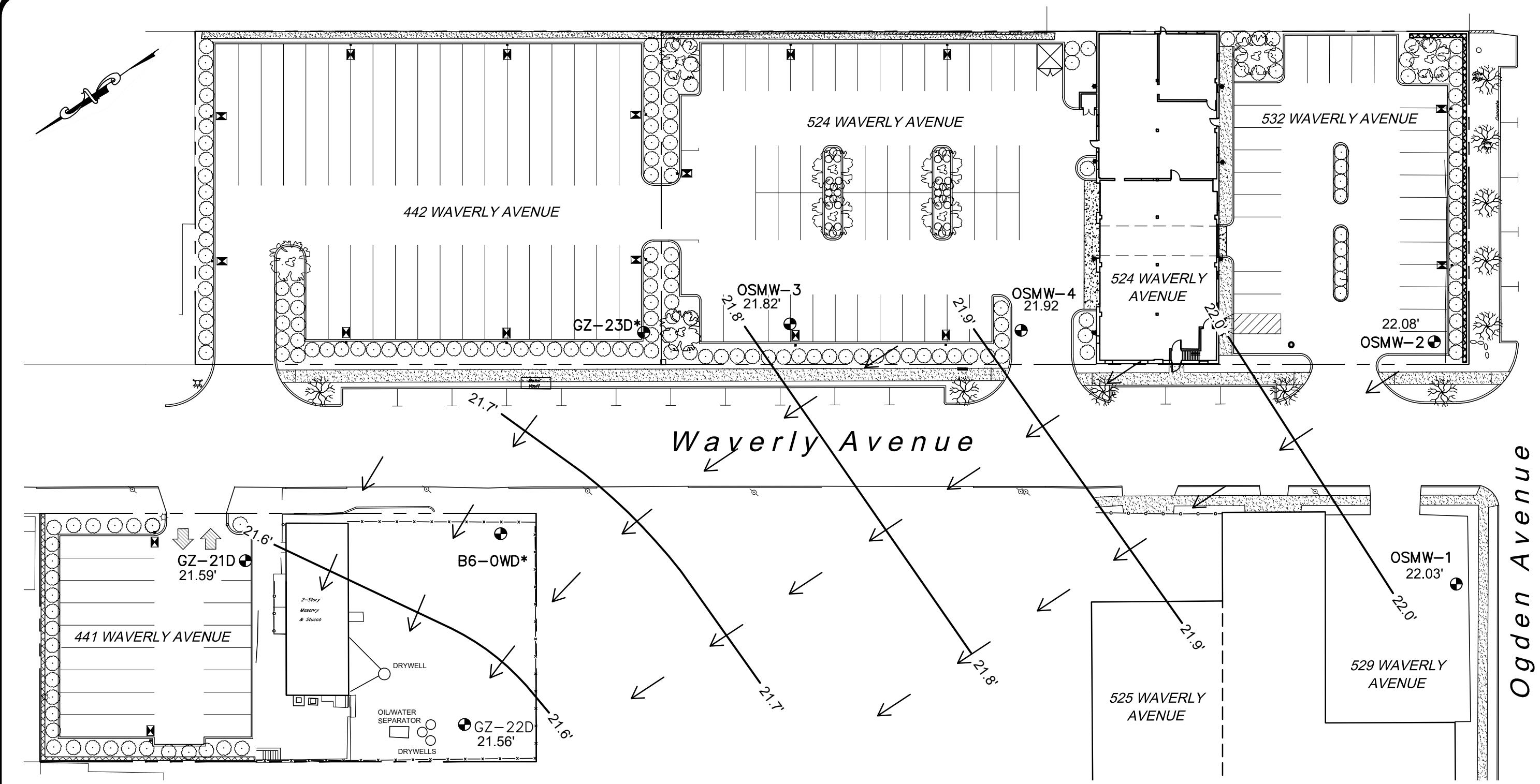


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Email  
Attachments

cc: T.J. Milo, New Waverly Avenue Associates, LLC  
Kevin Young, Young Sommer, LLC  
Amen Omorogbe, P.E., NYSDEC

## **FIGURE**



LEGEND:

- GZ-22D MONITORING WELL WITH CORRESPONDING GROUNDWATER ELEVATION  
21.56'
- GROUNDWATER CONTOUR MARCH 9, 2020
- GROUNDWATER FLOW DIRECTION  
(DASHED WHERE INFERRED)
- - - PROPERTY BOUNDARY
- ■ ■ LIGHT POLE
- CONCRETE SIDEWALK
- FENCE

TOTAL cVOCs ( $\mu\text{g/L}$ )		
WELL ID	HIGHEST CONCENTRATION PRIOR TO 2013	MARCH 2020
B6-OWD	615.70	3,504.9
GZ-21D	524.60	171.0
GZ-22D	260.40	113.6
GZ-23D	10,178.5	2,470.9
OSMW-3	900.10	2,682.0
OSMW-4	1,057.00	ND

\* DEPTH TO GROUNDWATER MEASUREMENT NOT CONSIDERED REPRESENTATIVE OF THE GROUNDWATER FLOW DIRECTION.

BASE MAP PROVIDED BY SITE DESIGN CONSULTANTS, DATED FEBRUARY 22, 2010.

**STERLING**  
Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

GROUNDWATER CONTOUR MAP  
MARCH 9, 2020

SITE# C360108

NEW WAVERLY AVENUE ASSOCIATES, LLC  
V/T OF MAMARONECK  
WESTCHESTER CO., N.Y.

FIGURE 1

## **TABLES**

**Table 1**  
**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Sample ID	Water Quality Standard*	GZ-21D																			DUP-1	DUP-1	DUP-1		
		µg/L																							
Unit	µg/L	08/20/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/27/19	12/04/19	03/09/20	06/18/14	10/12/16	12/04/19			
Sample Date																									
<i>Chlorinated Volatile Organic Compounds:</i>																									
1,1,1-Trichloroethane	5.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	<4.0	<2.5	<2.5				
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	<0.5	---	<0.5	<0.5			
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<6.0	<1.5	<3.8	<1.5	<1.5	---	<1.5	<1.5			
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	<4.0	<2.5	<2.5				
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.5	<1.2	<0.5	<4.0	<0.50	<0.5				
1,2-Dichloroethane	0.6	<b>170</b> D	<b>5.3</b>	<5.0	<b>190</b> D	<b>190</b>	<b>4.1</b>	0.4 J	<b>54</b>	<b>55</b>	<b>28</b>	<b>48</b>	<b>11</b>	<b>11</b>	<b>140</b>	<b>52</b>	<b>110</b>	<b>74</b>	<b>77</b>	<b>190</b>	<b>56</b>	<b>74</b>			
cis-1,2-Dichloroethene	5.0	<b>270</b> D	<b>10</b>	<b>7.6</b>	<b>310</b> D	<b>290</b>	<b>5.6</b>	<1.0	<b>100</b>	<2.5	0.83 J	3.5	<2.5	1.7 J	<b>270</b>	<b>120</b>	<b>230</b>	<b>110</b>	<b>91</b>	<b>350</b>	2.9	<b>110</b>			
trans-1,2-Dichloroethene	5.0	<b>6.6</b>	<5.0	<5.0	3.8	<5.0	<1.0	0.99 J	0.86 J	<2.5	0.81 J	<2.5	<2.5	3.4 J	2.4 J	2.6 J	1.9 J	1.6 J	<4.0	0.75 J	1.7 J				
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<2.5	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<b>10</b>	<6.2	<2.5	<2.5	---	<2.5	<2.5				
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	<0.5	---	<0.5	<0.5			
Carbon Tetrachloride	5.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	<0.5	<4.0	<0.5	<0.5			
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	---	<2.5	<2.5				
Chloroform	7.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	<4.0	<2.5	<2.5				
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	---	<2.5	<2.5				
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	<0.5	---	<0.5	<0.5			
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	1.7 J	<1.2	<0.5	<0.5	---	<0.5	<0.5				
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<12	<5	<5	---	<5.0	<5				
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	---	<2.5	<2.5				
Methylene Chloride	5.0	---	---	<5.0	<5.0	<b>5.4</b>	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	<4.0	<2.5	<2.5				
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	<2.5	---	<2.5	<2.5				
Tetrachloroethene	5.0	<b>41</b>	1.7 J	<5.0	<b>9.8</b>	3.4 J	0.89 J	1.0	0.18 J	<0.50	<0.50	<0.50	<0.50	0.19 J	<2.0	<0.5	<1.2	<0.5	2.9 J	<0.50	<0.5				
Trichloroethene	5.0	<b>33</b>	0.58 J	<5.0	<b>7.8</b>	<b>15</b>	0.82 J	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.5	<1.2	<0.5	<b>13</b>	<0.50	<0.5				
Vinyl chloride	2.0	4 J	<5.0	<5.0	<b>4.3</b>	<5.0	<1.0	<1.0	1.7	<1.0	0.43 J	<2.3	<1.0	0.59 J	<b>19</b>	<b>12</b>	<b>16</b>	<b>5</b>	1.4	<4.0	<b>2.8</b>	<b>4.8</b>			
<b>TOTAL CVOCs</b>		524.6	17.58	7.6	525.7	503.8	11.41	3.7	156.87	55.9	29.26	52.31	11	13.48	432.4	198.1	358.6	190.9	171.0	555.9	62.45	190.5			

**Notes:****BOLD** Indicates exceedance of groundwater standard\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

&lt; Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

**Table 1, Cont.**  
**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Sample ID	Water Quality Standard*	GZ-22D																			DUP-1	DUP-1		
		µg/L																						
Unit	µg/L	08/19/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/27/19	12/04/19	03/09/20	03/24/14	03/09/20			
Sample Date																								
<i>Chlorinated Volatile Organic Compounds:</i>																								
1,1,1-Trichloroethane	5.0	---	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.5 U	
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<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 U
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	---	<1.5 U
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.5 U	
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<25	<25	<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	0.5 U	
1,2-Dichloroethane	0.6	<b>22</b>	<b>17</b>	<b>16</b>	<b>24 J</b>	<25	<b>1.3</b>	<b>0.64 J</b>	<b>5.4</b>	<b>14</b>	<b>15</b>	<b>18</b>	<b>18</b>	<b>16</b>	<b>21</b>	<b>9.6</b>	<b>20</b>	<b>18</b>	<b>21</b>	<b>22 J</b>	<b>20</b>			
cis-1,2-Dichloroethene	5.0	<b>8.4</b>	<b>6.5</b>	<b>12</b>	<b>110</b>	<25	1.9	1.7	4.5	<b>6.8</b>	<b>5.2</b>	3.5	4.2	2.4 J	<b>12</b>	<b>7</b>	<b>17</b>	<b>5.7</b>	4.7	<b>100</b>	4.3			
trans-1,2-Dichloroethene	5.0	<5.0	1.3 J	4.2 J	<25	<25	<b>5.8</b>	<b>5.5</b>	<b>9.4</b>	<b>21</b>	<b>28</b>	<b>40</b>	<b>50</b>	<b>54</b>	<b>66</b>	<b>11</b>	<b>75</b>	<b>82</b>	<b>81</b>	<25	<b>77</b>			
1,2-Dichloropropane	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	---	
Bromoform	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	2.5 U
Bromochloromethane	50.0	---	---	---	---	---	---	---	<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 U
Bromodichloromethane	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbon Tetrachloride	5.0	---	---	<5.0	<25	<25	<1.0	<1.0	<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	2.5 U	
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	
Chloroform	7.0	---	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.5 U	
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<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	---	
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<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	---	
Dichlorodifluoromethane	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	<5	<5	---	
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	
Methylene Chloride	5.0	---	---	<5.0	<25	<b>19 J</b>	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.5 U	
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	
Tetrachloroethene	5.0	<b>120</b>	<b>97</b>	<b>62</b>	<b>14 J</b>	<25	2.1	0.88 J	0.69	<0.50	<0.50	<0.50	<0.50	<0.50	0.62 J-	<0.50	0.4 J	<0.5	<0.5	<b>21 J</b>	0.5 U			
Trichloroethene	5.0	<b>110</b>	<b>92</b>	<b>89</b>	<b>29</b>	<25	2.5	<b>5.5</b>	1.2	0.33 J	0.46 J	0.29 J	0.2 J	<0.50	3.7	0.52	3.6	0.5	0.23 J	<b>34</b>	0.32 J			
Vinyl chloride	2.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	1.8	<b>6.5</b>	<b>5.7</b>	<b>3.1</b>	<b>3.8 j</b>	<b>2.9</b>	<b>5.9</b>	<1.0	<b>8.3</b>	<b>5.8</b>	<b>6.7</b>	<25	<b>7.1</b>			
<b>TOTAL CVOCs</b>		260.4	213.8	183.2	177	19	13.6	14.22	22.99	48.6	54.36	64.89	76.2	75.3	109.22	28.12	124.3	112.0	113.63	177.0	108.72			

**Notes:****BOLD** Indicates exceedance of groundwater standard\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

&lt; Indicates the parameter was not detected at or above laboratory's reporting limit shown.

Table 1, Cont.

**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Well ID	Water Quality Standard*	GZ-23D																			DUP-1
		µg/L																			
Unit	µg/L	08/20/09	01/11/12	10/15/13	03/25/14	06/19/14	09/25/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/28/19	12/04/19	03/09/20	06/13/17	
Sample Date																					
<b>Chlorinated Volatile Organic Compounds:</b>																					
1,1,1-Trichloroethane	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<15	<30	<15	<38	<30	<30	<15	<7.5	<30	<30	<30	<30	
1,1-Dichloroethane	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
1,1-Dichloroethene	5.0	<b>5.5</b>	1.6 J	<100	1.7	<20	<20	<20	1.9 J	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
1,2-Dichloroethane	0.6	<b>13</b>	<b>9</b>	<100	<b>7.8</b>	<b>6.6 J</b>	<b>7.6 J</b>	<20	<b>3.6 J</b>	<10	<b>4.3 J</b>	<b>4.2 J</b>	<b>3.9 J</b>	<b>3.3 D,J</b>	<b>1.8 J</b>	<b>1.6 J</b>	<b>3.8 J</b>	<b>6.8 J</b>	<b>4.9 J</b>	<b>4.1 D,J</b>	
cis-1,2-Dichloroethene	5.0	<b>10</b>	<b>780 D</b>	<b>380</b>	<b>2,200 D</b>	<b>930</b>	<b>1,100</b>	<b>1,100</b>	<b>780</b>	<b>1,000 j</b>	<b>400</b>	<b>320</b>	<b>280</b>	<b>220 D</b>	<b>240</b>	<b>660</b>	<b>150</b>	<b>240</b>	<b>160</b>	<b>290 D</b>	
trans-1,2-Dichloroethene	5.0	<5.0	<b>9.1</b>	<100	<b>41</b>	<20	<20	<b>18 J</b>	<b>22 J</b>	<b>37 J,j</b>	<b>32</b>	<b>36 J</b>	<b>22 J</b>	<b>18 D,J</b>	<b>19 J</b>	<b>10 J</b>	<b>15 J</b>	<b>47 J</b>	<b>16 J</b>	<b>21 D,J</b>	
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<10	<20	<10	<25	<20	<20	<10	<5.0	<20	<20	<20	<20	
Bromochloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
Carbon Tetrachloride	5.0	---	---	<100	<40	<20	<20	<20	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
Chloroethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Chloroform	7.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Chloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10	<10	
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<50	<100	<50	<120	<100	<100	<50	<25	<100	<100	<100	<100	
Freon-113	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Methylene Chloride	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50	<50	
Tetrachloroethene	5.0	<b>9,700 D</b>	<b>4,300 D</b>	<b>3,100</b>	<b>1,500 D</b>	<b>880</b>	<b>720</b>	<b>94</b>	<b>750</b>	<b>110 j</b>	<b>1,300</b>	<b>1,000</b>	<b>1,600</b>	<b>1,200 D</b>	<b>1,600</b>	<b>7.6</b>	<b>1,800</b>	<b>1,700</b>	<b>1,700</b>	<b>1,500 D</b>	
Trichloroethene	5.0	<b>450 DJ</b>	<b>1,600 D</b>	<b>1,000</b>	<b>240 D</b>	<b>310</b>	<b>350</b>	<b>160</b>	<b>420</b>	<b>600 j</b>	<b>960</b>	<b>1,000</b>	<b>980</b>	<b>890 D</b>	<b>880</b>	<b>16</b>	<b>780</b>	<b>570</b>	<b>560</b>	<b>950 D</b>	
Vinyl chloride	2.0	<5.0	1.2 J	<b>28 J</b>	<b>200 D</b>	<b>250</b>	<b>390</b>	<b>320</b>	<b>230 j</b>	<20	200	82	72	58 D	40	96	32	57	30	71 D	
<b>TOTAL CVOCs</b>		10,178.5	6,700.9	4,508	4,191	2,376.6	2,567.6	1,692	2,207.5	1,747	2,896.3	2,442.2	2,957.9	2,389.3	2,780.8	791.2	2,780.8	2,620.8	2,470.9	2,836.1	

Notes:

BOLD Indicates exceedance of groundwater standard

\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

&lt; Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

**Laboratory Qualifiers:**

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

**Data Usability Summary Report (DUSR) Qualifiers:**

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

U Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

Table 1, Cont.

**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Well ID	Water Quality Standard*	B6-OWD																			DUP-1	DUP-1	DUP-1		
		μg/L																							
Unit	μg/L	08/21/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/27/19	12/04/19	03/09/20	12/16/15	05/16/18	10/18/18			
<i>Chlorinated Volatile Organic Compounds:</i>																									
1,1,1-Trichloroethane	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.5	<10	<5.0			
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<3.0	<7.5	<30	<15	<30	<15	<30	<1.5	<30	<15			
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<0.50	<0.50	<0.50	<0.50	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.50	<10	<5.0			
1,2-Dichloroethane	0.6	<b>9.7</b>	<5.0	<b>1.9 J</b>	<b>2.8</b>	<b>8.0</b>	<b>9.1</b>	<8.0	0.36 J	<0.50	0.31 J	0.32 J	0.29 J	<b>3.7 D</b>	<b>11</b>	<b>8.5</b>	<b>15</b>	<b>12 J+</b>	<b>8.9 J</b>	<0.50	<b>9.1 J</b>	<b>9.4</b>			
cis-1,2-Dichloroethene	5.0	<b>390 D</b>	1.5 J	<b>76</b>	<b>180 D</b>	<b>330</b>	<b>430 D</b>	<8.0	1.3 J	1.1 J	2.4 J	2.1 J	1.8 J	<b>150 D</b>	<b>390</b>	<b>360</b>	<b>700</b>	<b>620</b>	<b>530</b>	1.2 J	<b>330</b>	<b>380</b>			
trans-1,2-Dichloroethene	5.0	<b>150</b>	<5.0	<b>6.8</b>	<b>7.2</b>	<b>8.4</b>	<b>14</b>	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<b>6.0 J,D</b>	<b>22 J</b>	<b>16 J</b>	<b>41 J</b>	<b>24 J+</b>	<b>26 J</b>	<2.5	<b>20 J</b>	<b>17 J</b>			
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0	<20	<10	<20	<10	<20	<1.0	<20	<10			
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.5	<10	<5.0			
Carbon Tetrachloride	5.0	---	---	---	<5.0	---	<20	<4.0	<8.0	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.5	<10	<5.0		
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Chloroform	7.0	---	---	<5.0	---	<20	4	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.5	<10	<5.0			
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<10	<0.5	<10	<5.0			
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<10	<25	<100	<50	<100	<50	<100	<5.0	<100	<50			
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Methylene Chloride	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<50	<2.5	<50	<25			
Tetrachloroethene	5.0	<b>23</b>	<b>6.2</b>	<b>18</b>	<b>59</b>	<b>47</b>	<b>110</b>	<8.0	2.4	2.1	2.4	2.6	2.6	<b>190 D</b>	<b>1,200 J-</b>	<b>860</b>	<b>1400</b>	<b>520</b>	<b>740</b>	2.2	<b>1,100 J-</b>	<b>950</b>			
Trichloroethene	5.0	<b>43</b>	2.1 J	<b>41</b>	<b>170 D</b>	<b>180</b>	<b>330</b>	<8.0	1.3	1.4	1.7	1.7	1.4	<b>470 D</b>	<b>1,400</b>	<b>1,300</b>	<b>2000</b>	<b>1,200</b>	<b>2,200</b>	1.4	<b>1,400</b>	<b>1,400</b>			
Vinyl chloride	2.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<1.0	<1.0	0.27 J	0.28 J	0.2 j	<5.0	1.8 J	<10	<b>3.6 J</b>	<10	<20	<1.0	1.8 J	2.1 J			
<b>TOTAL CVOCs</b>		615.7	9.8	143.7	419	573.4	893.1	ND	5.36	4.6	7.08	7	6.29	819.7	3,024.8	2,544.5	4,159.6	2,376.0	3,504.9	4.8	2,860.9	2,758.5			

## Notes:

**BOLD** Indicates exceedance of groundwater standard

\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

< Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

## Laboratory Qualifiers:

Table 1, Cont.

**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Well ID	Water Quality Standard*	OSMW-3																		DUP-1	DUP-1
		$\mu\text{g/L}$																			
Unit	$\mu\text{g/L}$	01/10/12	10/16/13	03/24/14	06/19/14	09/24/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/28/19	12/04/19	03/09/20	11/05/14	11/14/17	
Sample Date																					
<b>Chlorinated Volatile Organic Compounds:</b>																					
1,1,1-Trichloroethane	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	<1.0	---	
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<12	---	---	
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	<30	<60	<7.5	<15	<1.5	<15	<3.0	<38	<38	<75	<38	---	---	
1,1-Dichloroethane	5.0	<5.0	<80	<1.0	<20	<20	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	<1.0	<25	
1,1-Dichloroethene	5.0	<5.0	<80	<1.0	<20	<20	<50	<10	<20	<2.5	<5.0	0.46 J	<5.0	<1.0	<12	<12	<25	<12	1.4	<5.0	
1,2-Dichloroethane	0.6	<b>4.4 J</b>	<80	<b>4.7</b>	<20	<20	<50	<10	<20	<b>3.8</b>	<b>4.2 J</b>	<b>5.2</b>	<b>4.5 J,D</b>	<b>1.7</b>	<12	<b>3.9 J</b>	<25	<12	<b>3.5</b>	<b>4.3 J,D</b>	
cis-1,2-Dichloroethene	5.0	<b>14</b>	<b>31 J</b>	<b>46</b>	<b>100</b>	<b>220</b>	<b>210</b>	<b>180</b>	<b>120 j</b>	<b>92</b>	<b>63</b>	<b>40</b>	<b>39 D</b>	<b>17</b>	<b>200</b>	<b>85</b>	<b>75 J</b>	<b>42 J+</b>	<b>210 D</b>	<b>39 D</b>	
trans-1,2-Dichloroethene	5.0	1.7 J	<80	3.7	<20	28	<50	25 J	<100	21	14 J	7.4	<25	<5.0	<62	<62	<120	<62	<b>26</b>	<b>7.1 J,D</b>	
1,2-Dichloropropane	1.0	---	---	---	---	---	---	<20	<40	<5.0	<10	<1.0	<10	<2.0	<25	<25	<50	<25	---	---	
Bromoform	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	---	---	
Bromodichloromethane	50.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<12	---	---	
Carbon Tetrachloride	5.0	---	<80	---	<20	---	<50	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<12	<1.0	---	
Chloroethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	---	---	
Chloroform	7.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	<1.0	---	
Chloromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	---	---	
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<12	---	---	
Dibromochloromethane	50.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<12	---	---	
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	<100	<200	<25	<50	<5.0	<10	<120	<120	<250	<120	---	---		
Freon-113	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	---	---	
Methylene Chloride	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	<1.0	---	
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<62	---	---	
Tetrachloroethene	5.0	<b>760 D</b>	<b>1,900</b>	<b>2,400 D</b>	<b>1,300</b>	<b>2,600 D</b>	<b>3,400</b>	<b>1,500</b>	<b>1,200 j</b>	<b>670</b>	<b>470</b>	<b>620 D</b>	<b>750 D</b>	<b>220 J-</b>	<b>3,600</b>	<b>2,900</b>	<b>4,900</b>	<b>2,300</b>	<b>2,900 D</b>	<b>760 D</b>	
Trichloroethene	5.0	<b>120</b>	<b>280</b>	<b>330 D</b>	<b>440</b>	<b>1,000</b>	<b>1,000</b>	<b>610</b>	<b>480 j</b>	<b>290</b>	<b>230</b>	<b>170 D</b>	<b>220 D</b>	<b>110</b>	<b>500</b>	<b>450</b>	<b>440</b>	<b>340</b>	<b>900 D</b>	<b>220 D</b>	
Vinyl chloride	2.0	<5.0	<80	<1.0	<20	<20	<50	<1.4 j	<40	0.44 J	<10	0.14 J	<10	<2.0	8.1 J	<25	<50	<25	<1.0	<10	
<b>TOTAL CVOCs</b>		900.1	2,211	2,784	1,840	3,848	4,610	2,315	1,800	1,077	781.2	843.2	1,014	348.7	4,308.1	3,438.9	5,415.0	2,682.0	4,041	1,030	

Notes:

BOLD Indicates exceedance of groundwater standard

\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

&lt; Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

**Laboratory Qualifiers:**

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

**Data Usability Summary Report (DUSR) Qualifiers:**

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

U Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table 1, Cont.**  
**Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**  
**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Well ID	Water Quality Standard*	OSMW-4																		DUP-1	DUP-1	DUP-1	DUP-1		
		µg/L																							
Unit	µg/L	01/10/12	10/16/13	03/25/14	06/18/14	09/24/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18	03/27/19	12/04/19	03/09/20	01/10/12	09/24/14	06/24/15	05/12/16			
Sample Date																									
<i>Chlorinated Volatile Organic Compounds:</i>																									
1,1,1-Trichloroethane	5.0	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	<1.0	<2.5	<2.5			
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	<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			
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	---	---	<1.5	<1.5			
1,1-Dichloroethane	5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<1.0	<2.5	<2.5			
1,1-Dichloroethene	5.0	<5.0	<5.0	<25	<25	<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	<5.0	<1.0	<0.50	<0.50			
1,2-Dichloroethane	0.6	<b>1.1 J</b>	<5.0	<25	<25	<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	<b>1.1 J</b>	<1.0	<0.50	<0.50			
cis-1,2-Dichloroethene	5.0	<b>29</b>	3.8 J	<25	<25	<b>6.0</b>	1.2 J	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<b>29</b>	<b>5.2</b>	1.2 J	<2.5			
trans-1,2-Dichloroethene	5.0	<b>6.9</b>	1 J	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<b>7.2</b>	<1.0	<2.5	<2.5			
1,2-Dichloropropane	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	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	<2.5	<2.5			
Bromodichloromethane	50.0	---	---	---	---	---	---	<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			
Carbon Tetrachloride	5.0	---	<5.0	<25	<25	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<1.0	<0.5	<0.5			
Chloroethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	<2.5	<2.5			
Chloroform	7.0	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	<1.0	<2.5	<2.5			
Chloromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	<2.5	<2.5			
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	<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			
Dibromochloromethane	50.0	---	---	---	---	---	---	<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			
Dichlorodifluoromethane	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			
Freon-113	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	<2.5	<2.5			
Methylene Chloride	5.0	---	<5.0	<25	<b>33</b>	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	<1.0	<2.5	<2.5			
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	<2.5	<2.5			
Tetrachloroethene	5.0	<b>790 D</b>	<b>11</b>	<25	<25	3.4	3.2	0.44 J	<0.50	0.2 Jj	2.0	1.1	0.25 J	<1.0 J	0.25 J	<0.5	<0.5	<0.5	<b>730 D</b>	3.4	0.48 J	0.19 J,j			
Trichloroethene	5.0	<b>230 D</b>	<b>15</b>	<25	<25	<b>6.0</b>	4.5	1.0	0.56	0.53	1.1	0.57	<0.50	<1.0	0.48 J	<0.5	<0.5	<0.5	<b>220 D</b>	<b>5.5</b>	1.1	0.58			
Vinyl chloride	2.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<0.07 j	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<5.0	<1.0	<1.0		
<b>TOTAL CVOCs</b>		1,057	30.8	ND	33	15.6	13.7	2.6	0.56	0.73	3.1	1.67	0.25	ND	7.07	0.72	ND	ND	987	14.1	2.78	0.77			

**Notes:****BOLD** Indicates exceedance of groundwater standard\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

&lt; Indicates the parameter was not detected at or above laboratory's reporting limit shown.

ND Not Detected.

--- No standard or not applicable.

**Table 1, Cont.****Summary of Groundwater Analytical Data Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Guidance Values**

**441 and 442 Waverly Avenue**  
**Chlorinated Volatile Organic Compounds**  
**Site #C360108**

Well ID	Water Quality Standard*	OSMW-1		OSMW-2		DUP-1
		µg/L	µg/L	µg/L	µg/L	
Sample Date		01/10/12	03/28/19	01/10/12	03/28/19	03/28/19
<b><i>Chlorinated Volatile Organic Compounds:</i></b>						
1,1,1-Trichloroethane	5.0	<5	<2.5	<5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	5.0	NA	<0.5	NA	<0.5	<0.5
1,1,2-Trichloroethane	1.0	NA	<1.5	NA	<1.5	<1.5
1,1-Dichloroethane	5.0	<5	<2.5	<5	<2.5	<2.5
1,1-Dichloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
1,2-Dichloroethane	0.6	<5	<0.5	<5	<0.5	<0.5
cis-1,2-Dichloroethene	5.0	<5	<2.5	1.1 J	<2.5	<2.5
trans-1,2-Dichloroethene	5.0	<5	<2.5	<5	<2.5	<2.5
1,2-Dichloropropane	1.0	NA	0.27 J	NA	<1	<1
Bromochloromethane	5.0	NA	<2.5	NA	<2.5	<2.5
Bromodichloromethane	50.0	NA	<0.5	NA	<0.5	<0.5
Carbon Tetrachloride	5.0	<5	<0.5	<5	<0.5	<0.5
Chloroethane	5.0	NA	<2.5	NA	<2.5	<2.5
Chloroform	7.0	<5	<2.5	<5	<2.5	<2.5
Chloromethane	5.0	NA	<2.5	NA	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	NA	<0.5	NA	<0.5	<0.5
Dibromochloromethane	50.0	NA	<0.5	NA	<0.5	<0.5
Dichlorodifluoromethane	5.0	NA	<5	NA	<5	<5
Freon-113	5.0	NA	<2.5	NA	<2.5	<2.5
Methylene Chloride	5.0	<5	<2.5	<5	<2.5	<2.5
Trichlorofluoromethane	5.0	NA	<2.5	NA	<2.5	<2.5
Tetrachloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
Trichloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
Vinyl chloride	2.0	<5	<1	<5	<1	<1
<b>TOTAL CVOCs</b>		0	0.27	1.1 J	0	0

**Notes:**

**BOLD** Indicates exceedance of groundwater standard

\* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

< Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

**Laboratory Qualifiers:**

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

**Data Usability Summary Report (DUSR) Qualifiers:**

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

U Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

## **DAILY FIELD REPORT**



## DAILY FIELD REPORT

Project Name: 441 & 442 Waverly Avenue  
 Client Name: TJ Milo  
 Location: Mamaroneck, NY  
 Weather: 70°F Sunny

Project No: 28012  
 Date: 3-9-2020  
 Personnel: PWS - Paul Schaefer

**Work Description:**

945 PWS onsite  
 1005 PWS Measures DTW at all monitoring wells (8)  
 1040 Monitoring well DTW complete Tide is rising (1140 High Tide)  
 1045 PWS Calibrates USI ProDSS; Setup at OSMW-4  
 1110 Sample OSMW-4; move to GZ-22D  
 1250 Sample GZ-22D; move to GZ-21D  
 1345 Sample GZ-21D; move to GZ-23D  
 1450 Sample GZ-23D; cement GZ-23D and GZ-23S;  
 move to OSMW-3  
 1540 Sample OSMW-3; move to B6-OWD  
 1640 Sample B6-OWD; cleanup equipment  
 1715 Bottle check; Send COC to MAW (STERLING)  
 1730 Survey Monitoring well measuring points (top of PVC)  
 1830 Replace Bolts at monitoring wells, GZ-23D, OSMW-1  
 OSMW-2 has both bolts; OSMW-3, OSMW-4, GZ-21D, GZ-22D, B6OWD  
 all have 1 bolt. Holes need tapped or clips need  
 installed. PURGE WATER BARREL IS FULL!  
 1900 PWS offsite.  
 2120 Samples Relinquished to Alpha Anal. Albany, NY

Signature:

# **WATER LEVEL MEASUREMENTS**

## **Sterling Environmental Engineering, P.C.**

24 Wade Road  
Latham, N.Y. 12110

441 & 442 Waverly Avenue

Project Name: 1100' DEPTH TO WATER METER  
Project No. 28012  
Location Mamaroneck, NY  
Weather: 70° F Sunny  
Field Personnel: PLWS  
Measuring Device: Depth to Water Meter

## 441/442 Waverly Avenue –Semiannual Groundwater Sampling Event

Name: Paul Scholar

Date: 3/9/2020

Event: 1<sup>st</sup> / 2nd

<b>Well I.D.</b>	<b>Total Well Depth</b> (feet below measuring point)	<b>Measuring Point Elevation</b> (to inner riser mark from datum)	<b>Depth to Water</b> (feet below measuring point)	<b>Ground Water Elevation</b>	<b>Color</b>	<b>Odor</b>	<b>Sheen</b>
<b>OSMW-4</b>	<b>35.62</b>	<b>31.27</b>	<b>9.35</b>	<b>21.92</b>	<b>Light Orange</b>	<b>Sweet</b>	<b>None</b>
<b>GZ-21D</b>	<b>44.21</b>	<b>29.79</b>	<b>8.20</b>	<b>21.59</b>	<b>Clear</b>	<b>None</b>	<b>None</b>
<b>GZ-22D</b>	<b>46.04</b>	<b>30.87</b>	<b>9.31</b>	<b>21.56</b>	<b>Clear</b>	<b>None</b>	<b>None</b>
<b>B6-OWD</b>	<b>35.30</b>	<b>30.15</b>	<b>8.29</b>	<b>21.86</b>	<b>Clear</b>	<b>None</b>	<b>None</b>
<b>OSMW-3</b>	<b>39.40</b>	<b>30.88</b>	<b>9.06</b>	<b>21.82</b>	<b>Light Orange</b>	<b>None</b>	<b>None</b>
<b>GZ-23D*</b>	<b>44.86</b>	<b>31.41</b>	<b>9.96</b>	<b>21.45</b>	<b>Cloudy</b>	<b>None</b>	<b>None</b>
<b>OSMW-1</b>	<b>36.24</b>	<b>31.05</b>	<b>9.02</b>	<b>22.03</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>OSMW-2</b>	<b>40.84</b>	<b>31.29</b>	<b>9.21</b>	<b>22.08</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

\*Adjusted +0.31 to Ground Water Elevation at Well GZ-23 to account for 30° bend in monitoring well.

**PURGING/SAMPLING DATA SHEETS**



Sterling Environmental Engineering, P.C.

## Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue
Site:	Mamaroneck, NY
Date:	5-9-2020
Sampling Personnel:	PWS
Sampling Device:	Bailer
Static Water Level:	9.35'
Measuring Point:	Top of PVC
Total Volume Purged:	3.21 gal

Well No.: OSMW-4  
Sample Time: 1110  
Well Depth: 35.62'  
Well Diameter: 1"  
Screen Length:  
Casing Type: Steel  
Tubing Type: NA  
Other Info:

Notes: \_\_\_\_\_

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#### **Types of Samples Collected:**

VOCs Sampled at 1110

LT Orange Color  
Iron / Sweet Smell

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., Vol<sub>cyl</sub> = π r<sup>2</sup>h, 1 ft<sup>3</sup> = 7.48 gal./28.31L

No Sheen

## Well Sampling Data Sheet

Project: 441 & 442 Waverly Avenue  
 Site: Mamaroneck, NY  
 Date: 3-9-2020  
 Sampling Personnel: PWS  
 Sampling Device: Bladder Pump  
 Static Water Level: 9.31'  
 Measuring Point: Top of PVC  
 Total Volume Purged: 10 gal

Well No.: GZ-22D  
 Sample Time: 1250  
 Well Depth: 46.0'  
 Well Diameter: 2"  
 Screen Length: 5'  
 Casing Type: Steel  
 Tubing Type: 1/4 LDPE  
 Other Info: NA

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (<1m)	pH ( $\pm 0.1$ )	Temp. (°C) ( $\pm 3\%$ )	SC (mS/cm) ( $\pm 3\%$ )	ORP (mV) ( $\pm 10$ )	DO (mg/L) ( $\pm 10\%$ )	Turbidity (nTu) ( $\pm 10\%$ )
1205	0.2	9.31	-	7.22	15.3	0.882	-121.9	0.51	117.32
1210	0.2	9.29	+0.02	7.21	15.4	0.886	-120.7	0.53	306.75
1215	0.2	9.29	0.00	7.21	15.7	0.887	-120.6	0.63	311.26
1220	0.2	9.29	0.00	7.20	16.5	0.886	-118.8	0.65	295.68
1225	0.2	9.29	0.00	7.21	16.9	0.873	-114.2	0.98	257.85
1230	0.2	9.30	+0.01	7.15	16.1	0.841	-79.8	1.57	6.08
1235	0.2	9.30	0.00	7.17	16.2	0.850	-89.2	1.21	6.28
1240	0.2	9.30	0.00	7.18	16.3	0.864	-104.2	0.95	7.60
1245	0.2	9.30	0.00	7.18	16.2	0.872	-113.9	0.85	9.86
1250	0.2	9.30	0.00	7.18	16.2	0.873	-115.2	0.78	11.21

Notes: DUP

Types of Samples Collected:

VOLs

Sampled at 1250

DUP03092020 at 1255

Clear; No Odor;

No Sheen

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft.,  $Vol_{cyl} = \pi r^2 h$ , 1 ft<sup>3</sup> = 7.48 gal./28.31L



Sterling Environmental Engineering, P.C.

## Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue
Site:	Mamaroneck, NY
Date:	3-9-2020
Sampling Personnel:	PWS
Sampling Device:	Bladder Pump
Static Water Level:	8.20'
Measuring Point:	Top of PVC
Total Volume Purged:	

Well No.: GZ-21D  
Sample Time: 1345  
Well Depth: 44.21'  
Well Diameter: 2"  
Screen Length: 5'  
Casing Type: Steel  
Tubing Type: 1/4" LDPE  
Other Info:

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### **Types of Samples Collected:**

VOCs Sampled at 1345 No odors; No sheen; clear

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., Vol<sub>cyl</sub> = π r<sup>2</sup>h, 1 ft<sup>3</sup> = 7.48 gal./28.31L



Sterling Environmental Engineering, P.C.

## Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue
Site:	Mamaroneck, NY
Date:	3-9-2020
Sampling Personnel:	PWS
Sampling Device:	Peristaltic Pump
Static Water Level:	10.27
Measuring Point:	Top of PVC
Total Volume Purged:	

Well No.: GZ-23D  
Sample Time: 1450  
Well Depth: 44.86'  
Well Diameter: 2"  
Screen Length: 5'  
Casing Type: Steel  
Tubing Type: 1/4" LDPE  
Other Info: Bends in Well

Notes: \_\_\_\_\_  
\_\_\_\_\_

#### **Types of Samples Collected:**

VOCs Sample Collected at 1450

Slightly Cloudy  
None  
None

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., Vol<sub>cv</sub> = π r<sup>2</sup>h, 1 ft<sup>3</sup> = 7.48 gal./28.31L



Sterling Environmental Engineering, P.C.

## Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue
Site:	Mamaroneck, NY
Date:	3-9-2020
Sampling Personnel:	PWS
Sampling Device:	Bailer
Static Water Level:	9.06
Measuring Point:	Top of PVC
Total Volume Purged:	3.75 gal.

Well No.: OSMW-3  
Sample Time: 1540  
Well Depth: 39.40'  
Well Diameter: 1"  
Screen Length:  
Casing Type: Steel  
Tubing Type: NA  
Other Info:

Notes: MS/MSD

Types of Samples Collected: Sampled at 1540 ~~1542~~ mW-3 ms D @ 1545 05 mW-3 ms 1550

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., Vol<sub>cyl</sub> = π r<sup>2</sup>h, 1 ft<sup>3</sup> = 7.48 gal./28.31L

LT orange  
No Odor  
No Sheen



Sterling Environmental Engineering, P.C.

## Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue
Site:	Mamaroneck, NY
Date:	3-9-2020
Sampling Personnel:	PWS
Sampling Device:	Peristaltic Pump
Static Water Level:	8.29
Measuring Point:	Top of PVC

Well No.: B6-OWD  
Sample Time: 1640  
Well Depth: 36.05'  
Well Diameter: 2'  
Screen Length: 5'  
Casing Type: Steel  
Tubing Type: 1/4" IDPF

Other Info:

Notes: Clear, No Odor; No Sheen  
Diesel Oil near flush mount

Types of Samples Collected: VOCs

Sampled at 1640

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft.,  $\text{Vol}_{\text{cyl}} = \pi r^2 h$ ,  $1 \text{ ft}^3 = 7.48 \text{ gal.}/28.31 \text{ L}$

**LABORATORY ANALYSIS REPORT  
AND  
DATA USABILITY SUMMARY REPORT (DUSR)**



## ANALYTICAL REPORT

Lab Number:	L2010545
Client:	Sterling Environmental Eng 24 Wade Road Latham, NY 12110
ATTN:	Mark Williams
Phone:	(518) 456-4900
Project Name:	441/442 WAVERLY AVENUE
Project Number:	28012
Report Date:	03/17/20

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

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



**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2010545-01	OSMW-4	WATER	MAMARONECK, NY	03/09/20 11:10	03/10/20
L2010545-02	GZ-22D	WATER	MAMARONECK, NY	03/09/20 12:50	03/10/20
L2010545-03	GZ-21D	WATER	MAMARONECK, NY	03/09/20 13:45	03/10/20
L2010545-04	GZ-23D	WATER	MAMARONECK, NY	03/09/20 14:50	03/10/20
L2010545-05	OSMW-3	WATER	MAMARONECK, NY	03/09/20 15:40	03/10/20
L2010545-06	B6-OWD	WATER	MAMARONECK, NY	03/09/20 16:40	03/10/20
L2010545-07	DUP03092020	WATER	MAMARONECK, NY	03/09/20 00:00	03/10/20
L2010545-08	TB03092020	WATER	MAMARONECK, NY	03/09/20 00:00	03/10/20

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

### Case Narrative

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

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

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

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

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

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

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**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

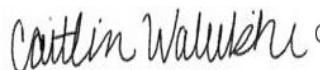
#### Case Narrative (continued)

##### Report Submission

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

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

Authorized Signature:

Caitlin Walukevich

Title: Technical Director/Representative

Date: 03/17/20

# ORGANICS



# VOLATILES



**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-01  
Client ID: OSMW-4  
Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 11:10  
Date Received: 03/10/20  
Field Prep: Not Specified

Sample Depth:

Matrix: Water  
Analytical Method: 1,8260C  
Analytical Date: 03/13/20 18:58  
Analyst: MM

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



Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-01  
 Client ID: OSMW-4  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 11:10  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	3.8	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	1.3	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	107		70-130

Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-02  
 Client ID: GZ-22D  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 12:50  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/13/20 19:28  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	21		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	2.1		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	6.7		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	81		ug/l	2.5	0.70	1
Trichloroethene	0.23	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-02  
 Client ID: GZ-22D  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 12:50  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	1.7	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	4.7		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.78	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	0.65	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	109		70-130

Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-03  
 Client ID: GZ-21D  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 13:45  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/13/20 19:58  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	77		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.4		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.6	J	ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-03	Date Collected:	03/09/20 13:45
Client ID:	GZ-21D	Date Received:	03/10/20
Sample Location:	MAMARONECK, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	91		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	109		70-130

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-04	D	Date Collected:	03/09/20 14:50
Client ID:	GZ-23D		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Matrix: Water  
Analytical Method: 1,8260C  
Analytical Date: 03/13/20 20:29  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	1700		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	4.9	J	ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	30		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	16	J	ug/l	50	14.	20
Trichloroethene	560		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20



**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-04	D	Date Collected:	03/09/20 14:50
Client ID:	GZ-23D		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	160		ug/l	50	14.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
Methyl Acetate	ND		ug/l	40	4.7	20
Cyclohexane	ND		ug/l	200	5.4	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	ND		ug/l	50	14.	20
Methyl cyclohexane	8.5	J	ug/l	200	7.9	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	113		70-130

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-05	D	Date Collected:	03/09/20 15:40
Client ID:	OSMW-3		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Matrix: Water  
Analytical Method: 1,8260C  
Analytical Date: 03/15/20 19:40  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	62	18.	25	
1,1-Dichloroethane	ND	ug/l	62	18.	25	
Chloroform	ND	ug/l	62	18.	25	
Carbon tetrachloride	ND	ug/l	12	3.4	25	
1,2-Dichloropropane	ND	ug/l	25	3.4	25	
Dibromochloromethane	ND	ug/l	12	3.7	25	
1,1,2-Trichloroethane	ND	ug/l	38	12.	25	
Tetrachloroethene	2300	ug/l	12	4.5	25	
Chlorobenzene	ND	ug/l	62	18.	25	
Trichlorofluoromethane	ND	ug/l	62	18.	25	
1,2-Dichloroethane	ND	ug/l	12	3.3	25	
1,1,1-Trichloroethane	ND	ug/l	62	18.	25	
Bromodichloromethane	ND	ug/l	12	4.8	25	
trans-1,3-Dichloropropene	ND	ug/l	12	4.1	25	
cis-1,3-Dichloropropene	ND	ug/l	12	3.6	25	
Bromoform	ND	ug/l	50	16.	25	
1,1,2,2-Tetrachloroethane	ND	ug/l	12	4.2	25	
Benzene	ND	ug/l	12	4.0	25	
Toluene	ND	ug/l	62	18.	25	
Ethylbenzene	ND	ug/l	62	18.	25	
Chloromethane	ND	ug/l	62	18.	25	
Bromomethane	ND	ug/l	62	18.	25	
Vinyl chloride	ND	ug/l	25	1.8	25	
Chloroethane	ND	ug/l	62	18.	25	
1,1-Dichloroethene	ND	ug/l	12	4.2	25	
trans-1,2-Dichloroethene	ND	ug/l	62	18.	25	
Trichloroethene	340	ug/l	12	4.4	25	
1,2-Dichlorobenzene	ND	ug/l	62	18.	25	



Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-05	D	Date Collected:	03/09/20 15:40
Client ID:	OSMW-3		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	42	J	ug/l	62	18.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	ND		ug/l	120	48.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
Methyl Acetate	ND		ug/l	50	5.8	25
Cyclohexane	ND		ug/l	250	6.8	25
1,4-Dioxane	ND		ug/l	6200	1500	25
Freon-113	ND		ug/l	62	18.	25
Methyl cyclohexane	ND		ug/l	250	9.9	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	114		70-130

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-06	D	Date Collected:	03/09/20 16:40
Client ID:	B6-OWD		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Matrix:	Water
Analytical Method:	1,8260C
Analytical Date:	03/15/20 20:02
Analyst:	AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	740		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	8.9	J	ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	5.8	J	ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	26	J	ug/l	50	14.	20
Trichloroethene	2200		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20



**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**SAMPLE RESULTS**

Lab ID:	L2010545-06	D	Date Collected:	03/09/20 16:40
Client ID:	B6-OWD		Date Received:	03/10/20
Sample Location:	MAMARONECK, NY		Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	530		ug/l	50	14.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
Methyl Acetate	ND		ug/l	40	4.7	20
Cyclohexane	ND		ug/l	200	5.4	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	ND		ug/l	50	14.	20
Methyl cyclohexane	ND		ug/l	200	7.9	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	108		70-130

Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-07  
 Client ID: DUP03092020  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 00:00  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/15/20 20:24  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	20		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	1.9		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	7.1		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	77		ug/l	2.5	0.70	1
Trichloroethene	0.32	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-07  
 Client ID: DUP03092020  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 00:00  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	1.3	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	4.3		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.76	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	110		70-130

Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-08  
 Client ID: TB03092020  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 00:00  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/15/20 14:55  
 Analyst: AD

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



Project Name: 441/442 WAVERLY AVENUE

Lab Number: L2010545

Project Number: 28012

Report Date: 03/17/20

**SAMPLE RESULTS**

Lab ID: L2010545-08  
 Client ID: TB03092020  
 Sample Location: MAMARONECK, NY

Date Collected: 03/09/20 00:00  
 Date Received: 03/10/20  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	113		70-130

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/13/20 10:57  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-04		Batch:	WG1351377-5	
Methylene chloride	ND	ug/l	2.5	0.70	
1,1-Dichloroethane	ND	ug/l	2.5	0.70	
Chloroform	ND	ug/l	2.5	0.70	
Carbon tetrachloride	ND	ug/l	0.50	0.13	
1,2-Dichloropropane	ND	ug/l	1.0	0.14	
Dibromochloromethane	ND	ug/l	0.50	0.15	
1,1,2-Trichloroethane	ND	ug/l	1.5	0.50	
Tetrachloroethene	ND	ug/l	0.50	0.18	
Chlorobenzene	ND	ug/l	2.5	0.70	
Trichlorofluoromethane	ND	ug/l	2.5	0.70	
1,2-Dichloroethane	ND	ug/l	0.50	0.13	
1,1,1-Trichloroethane	ND	ug/l	2.5	0.70	
Bromodichloromethane	ND	ug/l	0.50	0.19	
trans-1,3-Dichloropropene	ND	ug/l	0.50	0.16	
cis-1,3-Dichloropropene	ND	ug/l	0.50	0.14	
Bromoform	ND	ug/l	2.0	0.65	
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50	0.17	
Benzene	ND	ug/l	0.50	0.16	
Toluene	ND	ug/l	2.5	0.70	
Ethylbenzene	ND	ug/l	2.5	0.70	
Chloromethane	ND	ug/l	2.5	0.70	
Bromomethane	ND	ug/l	2.5	0.70	
Vinyl chloride	ND	ug/l	1.0	0.07	
Chloroethane	ND	ug/l	2.5	0.70	
1,1-Dichloroethene	ND	ug/l	0.50	0.17	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Trichloroethene	ND	ug/l	0.50	0.18	
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/13/20 10:57  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04			Batch:	WG1351377-5	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	
Methyl tert butyl ether	ND	ug/l	2.5	0.70	
p/m-Xylene	ND	ug/l	2.5	0.70	
o-Xylene	ND	ug/l	2.5	0.70	
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Styrene	ND	ug/l	2.5	0.70	
Dichlorodifluoromethane	ND	ug/l	5.0	1.0	
Acetone	ND	ug/l	5.0	1.5	
Carbon disulfide	ND	ug/l	5.0	1.0	
2-Butanone	ND	ug/l	5.0	1.9	
4-Methyl-2-pentanone	ND	ug/l	5.0	1.0	
2-Hexanone	ND	ug/l	5.0	1.0	
Bromochloromethane	ND	ug/l	2.5	0.70	
1,2-Dibromoethane	ND	ug/l	2.0	0.65	
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	0.70	
Isopropylbenzene	ND	ug/l	2.5	0.70	
1,2,3-Trichlorobenzene	ND	ug/l	2.5	0.70	
1,2,4-Trichlorobenzene	ND	ug/l	2.5	0.70	
Methyl Acetate	ND	ug/l	2.0	0.23	
Cyclohexane	ND	ug/l	10	0.27	
1,4-Dioxane	ND	ug/l	250	61.	
Freon-113	ND	ug/l	2.5	0.70	
Methyl cyclohexane	ND	ug/l	10	0.40	

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/13/20 10:57  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04			Batch:	WG1351377-5	

Surrogate	%Recovery	Acceptance Criteria	
		Qualifier	
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/15/20 14:33  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-08		Batch:	WG1351709-5	
Methylene chloride	ND	ug/l	2.5	0.70	
1,1-Dichloroethane	ND	ug/l	2.5	0.70	
Chloroform	ND	ug/l	2.5	0.70	
Carbon tetrachloride	ND	ug/l	0.50	0.13	
1,2-Dichloropropane	ND	ug/l	1.0	0.14	
Dibromochloromethane	ND	ug/l	0.50	0.15	
1,1,2-Trichloroethane	ND	ug/l	1.5	0.50	
Tetrachloroethene	ND	ug/l	0.50	0.18	
Chlorobenzene	ND	ug/l	2.5	0.70	
Trichlorofluoromethane	ND	ug/l	2.5	0.70	
1,2-Dichloroethane	ND	ug/l	0.50	0.13	
1,1,1-Trichloroethane	ND	ug/l	2.5	0.70	
Bromodichloromethane	ND	ug/l	0.50	0.19	
trans-1,3-Dichloropropene	ND	ug/l	0.50	0.16	
cis-1,3-Dichloropropene	ND	ug/l	0.50	0.14	
Bromoform	ND	ug/l	2.0	0.65	
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50	0.17	
Benzene	ND	ug/l	0.50	0.16	
Toluene	ND	ug/l	2.5	0.70	
Ethylbenzene	ND	ug/l	2.5	0.70	
Chloromethane	ND	ug/l	2.5	0.70	
Bromomethane	ND	ug/l	2.5	0.70	
Vinyl chloride	ND	ug/l	1.0	0.07	
Chloroethane	ND	ug/l	2.5	0.70	
1,1-Dichloroethene	ND	ug/l	0.50	0.17	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Trichloroethene	ND	ug/l	0.50	0.18	
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/15/20 14:33  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-08	Batch:	WG1351709-5		
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	
Methyl tert butyl ether	ND	ug/l	2.5	0.70	
p/m-Xylene	ND	ug/l	2.5	0.70	
o-Xylene	ND	ug/l	2.5	0.70	
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Styrene	ND	ug/l	2.5	0.70	
Dichlorodifluoromethane	ND	ug/l	5.0	1.0	
Acetone	ND	ug/l	5.0	1.5	
Carbon disulfide	ND	ug/l	5.0	1.0	
2-Butanone	ND	ug/l	5.0	1.9	
4-Methyl-2-pentanone	ND	ug/l	5.0	1.0	
2-Hexanone	ND	ug/l	5.0	1.0	
Bromochloromethane	ND	ug/l	2.5	0.70	
1,2-Dibromoethane	ND	ug/l	2.0	0.65	
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	0.70	
Isopropylbenzene	ND	ug/l	2.5	0.70	
1,2,3-Trichlorobenzene	ND	ug/l	2.5	0.70	
1,2,4-Trichlorobenzene	ND	ug/l	2.5	0.70	
Methyl Acetate	ND	ug/l	2.0	0.23	
Cyclohexane	ND	ug/l	10	0.27	
1,4-Dioxane	ND	ug/l	250	61.	
Freon-113	ND	ug/l	2.5	0.70	
Methyl cyclohexane	ND	ug/l	10	0.40	

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/15/20 14:33  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-08	Batch:	WG1351709-5		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	114		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1351377-3 WG1351377-4								
Methylene chloride	100		94		70-130	6		20
1,1-Dichloroethane	97		94		70-130	3		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	130		120		63-132	8		20
1,2-Dichloropropane	90		89		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	88		88		70-130	0		20
Tetrachloroethene	100		96		70-130	4		20
Chlorobenzene	94		91		75-130	3		20
Trichlorofluoromethane	130		120		62-150	8		20
1,2-Dichloroethane	110		120		70-130	9		20
1,1,1-Trichloroethane	120		120		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	110		110		70-130	0		20
Bromoform	79		81		54-136	3		20
1,1,2,2-Tetrachloroethane	67		70		67-130	4		20
Benzene	100		100		70-130	0		20
Toluene	94		91		70-130	3		20
Ethylbenzene	94		89		70-130	5		20
Chloromethane	79		77		64-130	3		20
Bromomethane	120		120		39-139	0		20
Vinyl chloride	88		85		55-140	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1351377-3 WG1351377-4								
Chloroethane	97		96		55-138	1		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	110		100		70-130	10		20
1,2-Dichlorobenzene	91		91		70-130	0		20
1,3-Dichlorobenzene	93		92		70-130	1		20
1,4-Dichlorobenzene	95		93		70-130	2		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	84		78		36-147	7		20
Acetone	100		110		58-148	10		20
Carbon disulfide	100		99		51-130	1		20
2-Butanone	93		100		63-138	7		20
4-Methyl-2-pentanone	70		74		59-130	6		20
2-Hexanone	74		81		57-130	9		20
Bromochloromethane	110		110		70-130	0		20
1,2-Dibromoethane	90		92		70-130	2		20
1,2-Dibromo-3-chloropropane	70		77		41-144	10		20
Isopropylbenzene	84		80		70-130	5		20
1,2,3-Trichlorobenzene	86		91		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

<b>Parameter</b>	<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual	%Recovery Limits	RPD	Qual	<i>RPD</i> Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1351377-3 WG1351377-4								
1,2,4-Trichlorobenzene	89		90		70-130	1		20
Methyl Acetate	92		100		70-130	8		20
Cyclohexane	89		81		70-130	9		20
1,4-Dioxane	156		172	Q	56-162	10		20
Freon-113	120		110		70-130	9		20
Methyl cyclohexane	96		86		70-130	11		20

<b>Surrogate</b>	<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	109		108		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	82		81		70-130
Dibromofluoromethane	107		109		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 Batch: WG1351709-3 WG1351709-4								
Methylene chloride	100		99		70-130	1		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	120		110		70-130	9		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	100		98		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	89		92		70-130	3		20
Tetrachloroethene	94		94		70-130	0		20
Chlorobenzene	98		98		75-130	0		20
Trichlorofluoromethane	130		130		62-150	0		20
1,2-Dichloroethane	110		120		70-130	9		20
1,1,1-Trichloroethane	130		120		67-130	8		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	94		99		70-130	5		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	96		100		54-136	4		20
1,1,2,2-Tetrachloroethane	83		93		67-130	11		20
Benzene	100		100		70-130	0		20
Toluene	95		96		70-130	1		20
Ethylbenzene	99		99		70-130	0		20
Chloromethane	110		100		64-130	10		20
Bromomethane	140	Q	130		39-139	7		20
Vinyl chloride	110		110		55-140	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 Batch: WG1351709-3 WG1351709-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	120		120		70-130	0		20
1,2-Dichlorobenzene	99		100		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	96		100		70-130	4		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	130		130		36-147	0		20
Acetone	88		100		58-148	13		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	90		110		63-138	20		20
4-Methyl-2-pentanone	75		88		59-130	16		20
2-Hexanone	74		86		57-130	15		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	94		100		70-130	6		20
1,2-Dibromo-3-chloropropane	86		100		41-144	15		20
Isopropylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	91		100		70-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

<b>Parameter</b>	<b>LCS</b>		<b>LCSD</b>		<b>%Recovery</b>		<b>RPD</b>	<b>Qual</b>	<b>RPD</b> <b>Limits</b>
	<b>%Recovery</b>	<b>Qual</b>	<b>%Recovery</b>	<b>Qual</b>	<b>Limits</b>				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 Batch: WG1351709-3 WG1351709-4									
1,2,4-Trichlorobenzene	94		100		70-130		6		20
Methyl Acetate	91		97		70-130		6		20
Cyclohexane	99		96		70-130		3		20
1,4-Dioxane	90		96		56-162		6		20
Freon-113	120		110		70-130		9		20
Methyl cyclohexane	98		97		70-130		1		20

<b>Surrogate</b>	<b>LCS</b>		<b>LCSD</b>		<b>Acceptance Criteria</b>
	<b>%Recovery</b>	<b>Qual</b>	<b>%Recovery</b>	<b>Qual</b>	
1,2-Dichloroethane-d4	111		109		70-130
Toluene-d8	94		95		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	112		110		70-130

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1351709-6 WG1351709-7 QC Sample: L2010545-05 Client ID: OSMW-3												
Methylene chloride	ND	250	260	104		260	104		70-130	0		20
1,1-Dichloroethane	ND	250	270	108		280	112		70-130	4		20
Chloroform	ND	250	300	120		300	120		70-130	0		20
Carbon tetrachloride	ND	250	300	120		320	128		63-132	6		20
1,2-Dichloropropane	ND	250	240	96		260	104		70-130	8		20
Dibromochloromethane	ND	250	260	104		260	104		63-130	0		20
1,1,2-Trichloroethane	ND	250	220	88		240	96		70-130	9		20
Tetrachloroethene	2300	250	2400	40	Q	2500	80		70-130	4		20
Chlorobenzene	ND	250	240	96		250	100		75-130	4		20
Trichlorofluoromethane	ND	250	340	136		360	144		62-150	6		20
1,2-Dichloroethane	ND	250	290	116		290	116		70-130	0		20
1,1,1-Trichloroethane	ND	250	330	132	Q	330	132	Q	67-130	0		20
Bromodichloromethane	ND	250	270	108		280	112		67-130	4		20
trans-1,3-Dichloropropene	ND	250	230	92		240	96		70-130	4		20
cis-1,3-Dichloropropene	ND	250	240	96		250	100		70-130	4		20
Bromoform	ND	250	240	96		250	100		54-136	4		20
1,1,2,2-Tetrachloroethane	ND	250	210	84		220	88		67-130	5		20
Benzene	ND	250	260	104		270	108		70-130	4		20
Toluene	ND	250	240	96		240	96		70-130	0		20
Ethylbenzene	ND	250	240	96		250	100		70-130	4		20
Chloromethane	ND	250	250	100		270	108		64-130	8		20
Bromomethane	ND	250	240	96		270	108		39-139	12		20
Vinyl chloride	ND	250	280	112		290	116		55-140	4		20

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1351709-6 WG1351709-7 QC Sample: L2010545-05 Client ID: OSMW-3												
Chloroethane	ND	250	320	128		320	128		55-138	0		20
1,1-Dichloroethene	ND	250	290	116		300	120		61-145	3		20
trans-1,2-Dichloroethene	ND	250	280	112		280	112		70-130	0		20
Trichloroethene	340	250	610	108		640	120		70-130	5		20
1,2-Dichlorobenzene	ND	250	240	96		240	96		70-130	0		20
1,3-Dichlorobenzene	ND	250	240	96		240	96		70-130	0		20
1,4-Dichlorobenzene	ND	250	230	92		240	96		70-130	4		20
Methyl tert butyl ether	ND	250	250	100		270	108		63-130	8		20
p/m-Xylene	ND	500	490	98		510	102		70-130	4		20
o-Xylene	ND	500	500	100		520	104		70-130	4		20
cis-1,2-Dichloroethene	42J	250	310	124		330	132	Q	70-130	6		20
Styrene	ND	500	500	100		520	104		70-130	4		20
Dichlorodifluoromethane	ND	250	280	112		320	128		36-147	13		20
Acetone	ND	250	240	96		260	104		58-148	8		20
Carbon disulfide	ND	250	260	104		280	112		51-130	7		20
2-Butanone	ND	250	240	96		250	100		63-138	4		20
4-Methyl-2-pentanone	ND	250	210	84		210	84		59-130	0		20
2-Hexanone	ND	250	190	76		210	84		57-130	10		20
Bromochloromethane	ND	250	280	112		290	116		70-130	4		20
1,2-Dibromoethane	ND	250	240	96		250	100		70-130	4		20
1,2-Dibromo-3-chloropropane	ND	250	210	84		240	96		41-144	13		20
Isopropylbenzene	ND	250	240	96		250	100		70-130	4		20
1,2,3-Trichlorobenzene	ND	250	220	88		230	92		70-130	4		20

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 441/442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L2010545  
**Report Date:** 03/17/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1351709-6 WG1351709-7 QC Sample: L2010545-05 Client ID: OSMW-3												
1,2,4-Trichlorobenzene	ND	250	210	84		220	88		70-130	5		20
Methyl Acetate	ND	250	230	92		240	96		70-130	4		20
Cyclohexane	ND	250	230J	92		250	100		70-130	8		20
1,4-Dioxane	ND	12500	12000	96		12000	96		56-162	0		20
Freon-113	ND	250	240	96		270	108		70-130	12		20
Methyl cyclohexane	ND	250	210J	84		230J	92		70-130	9		20

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	111		113		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	112		110		70-130
Toluene-d8	91		93		70-130

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2010545-01A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-01B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-01C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-02A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-02B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-02C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-03A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-03B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-03C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-04A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-04B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-04C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05A1	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05A2	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05B1	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05B2	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05C1	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-05C2	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-06A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-06B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)

\*Values in parentheses indicate holding time in days

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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2010545-06C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-07A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-07B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-07C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-08A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010545-08B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)

\*Values in parentheses indicate holding time in days

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## GLOSSARY

### **Acronyms**

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### **Footnotes**

*Report Format: DU Report with 'J' Qualifiers*



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

#### Terms

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

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

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

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

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

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

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

**Report Format:** DU Report with 'J' Qualifiers



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**Data Qualifiers**

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*



**Project Name:** 441/442 WAVERLY AVENUE  
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**Report Date:** 03/17/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

**Westborough Facility**

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**Mansfield Facility**

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

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

**Westborough Facility:**

**Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C**, **SM4500CN-CE**, **EPA 180.1**, **SM2130B**, **SM4500CI-D**, **SM2320B**, **SM2540C**, **SM4500H-B**, **SM4500NO2-B**

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: **SM9215B**; **SM9223-P/A**, **SM9223B-Colilert-QT**, **SM9222D**.

**Non-Potable Water**

**SM4500H,B**, **EPA 120.1**, **SM2510B**, **SM2540C**, **SM2320B**, **SM4500CL-E**, **SM4500F-BC**, **SM4500NH3-BH**: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1**, **SM4500NO3-F**, **EPA 353.2**: Nitrate-N, **SM4500P-E**, **SM4500P-B**, **E**, **SM4500SO4-E**, **SM5220D**, **EPA 410.4**, **SM5210B**, **SM5310C**, **SM4500CL-D**, **EPA 1664**, **EPA 420.1**, **SM4500-CN-CE**, **SM2540D**, **EPA 300**: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 6004-81-045**: PCB-Oil.

Microbiology: **SM9223B-Colilert-QT**; **Enterolert-QT**, **SM9221E**, **EPA 1600**, **EPA 1603**.

**Mansfield Facility:**

**Drinking Water**

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8**: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Na, Sr, Ti, V, Zn. **EPA 245.1 Hg**. **EPA 522**.

**Non-Potable Water**

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, V, Zn.

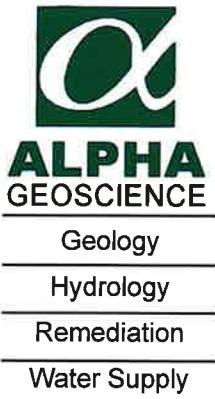
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, Sr, Ti, V, Zn.

EPA 245.1 Hg.

**SM2340B**

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

NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page		Date Rec'd in Lab	3/10/20	ALPHA Job # L7010545		
			1 of 1						
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables		Billing Information			
		Project Name: 441/442 Waverly Avenue Project Location: Mamaroneck, NY Project # 28012		<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info PO #			
Client Information		(Use Project name as Project #) <input type="checkbox"/>		Regulatory Requirement		Disposal Site Information			
Client: Sterling Environmental		Project Manager: Jennifer Dicerbo/Mark Williams		<input checked="" type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Please identify below location of applicable disposal facilities.			
Address: 24 Wade Rd Latham, NY 12110		ALPHAQuote #:				Disposal Facility:			
Phone: 518 456-4900		Turn-Around Time:				<input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
Fax:		Standard <input checked="" type="checkbox"/>		Due Date:					
Email:		Rush (only if pre approved) <input type="checkbox"/>		# of Days:					
These samples have been previously analyzed by Alpha <input type="checkbox"/>									
Other project specific requirements/comments: mark.williams@sterlingenvironmental.com jennifer.dicerbo@sterlingenvironmental.com									
Please specify Metals or TAL.									
ANALYSIS									
10545	Sample ID	Collection		Sample Matrix	Sampler's Initials	V 03/09/2020 10545		Sample Filtration	
		Date	Time					<input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do	
		3-9-2020	1110					<input checked="" type="checkbox"/> PWS	
			1250					<input checked="" type="checkbox"/>	
			1345					<input checked="" type="checkbox"/>	
			1450					<input checked="" type="checkbox"/>	
			1540					<input checked="" type="checkbox"/>	
			1545					<input checked="" type="checkbox"/>	
			1550					<input checked="" type="checkbox"/>	
-01	OSMW-4							3	
-02	GZ-22D							3	
-03	GZ-21D							3	
-04	GZ-23D							3	
-05	OSMW-3							3	
-05	OSMW-3 MSD							3	
-05	OSMW-3 MS							3	
-06	B60WD							3	
-07	DUP03092020							3	
-08	TB03092020							3	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V		Sample Specific Comments	
						Preservative B			
		Relinquished By:		Date/Time		Received By:		Date/Time	
		<i>J. Shiff</i>		3/9/20 21:20		<i>M. Williams</i>		3/9/20 21:38	
		<i>J. Shiff</i>		3/9/20 21:38		<i>J. Shiff</i>		3/10/20 00:50	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)									



March 30, 2020

Mr. Paul W. Scholar.  
Geologist  
Sterling Environmental Engineering, P.C.  
24 Wade Road  
Latham, New York 12110

Re: Data Validation Report  
Waverly Avenue  
March 2020 Ground Water Sampling Event

Dear Mr. Scholar:

The data usability summary report (DUSR) and QA/QC review are attached to this letter for the above referenced project sampling event. The data for Alpha Analytical Labs, lab number L2010545 are acceptable with some minor issues that are identified and discussed in the validation summary. There are no data that are qualified unusable (R) in the data pack.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Sterling Environmental Engineering, P.C.

Sincerely,  
Alpha Geoscience

A handwritten signature in black ink, appearing to read "Donald Anné".

Donald Anné  
Senior Chemist

DCA:dca  
attachments

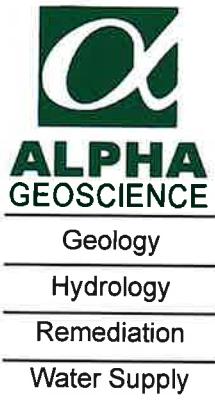
## **Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II**

- U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
- R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
- N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
- J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
- J- = Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
- J+ = Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

## Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation



**Data Usability Summary Report  
for Alpha Analytical Labs  
SDG Number: L2010545**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected March 9, 2020**

Prepared by: Donald Anné  
March 30, 2020

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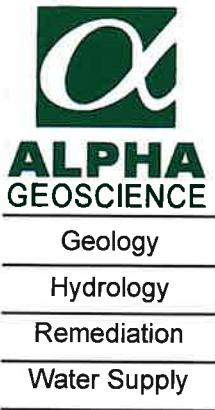
The data package contains the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for the volatile analyses for 6 ground water samples, 1 field duplicate, and 1 trip blank.

The overall performances of the analyses are acceptable. Alpha Analytical Labs did fulfill the requirements of the analytical method.

The data are mostly acceptable with some minor issues that are identified in the accompanying data validation review. The following data were qualified:

- The positive volatile results for cis-1,2-dichloroethene was qualified as “estimated, biased high” (J+) in sample OSMW-3 because 1 of 2 %Rs for cis-1,2-dichloroethene were above QC limits in the aqueous MS/MSD.
- The positive volatile result for acetone was qualified as “not detected” (U) for sample OSMW-4 because the level reported in the sample was not significantly greater than (more than 10 times) the highest associated blank level.

All data are considered usable, with estimated (J+) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.



**QA/QC Review of Method 8260C Volatiles  
Data for Alpha Analytical Labs  
SDG Number: L2010545**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected March 9, 2020**

Prepared by: Donald Anné  
March 30, 2020

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRF for acetone was below the method minimum, but not below 0.010 for QUIMBY on 01-22-20. The average RRF for acetone was below the method minimum, but not below 0.010 for VOA108 on 02-26-20. No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no average RRF is less than 0.010.

The average RRFs for target compounds were not below the allowable minimum (0.010 for all compounds except 0.001 for 1,4-dioxane) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for acetone and 4-methyl-2-pentanone were below the method minimums, but not below 0.010 on 03-15-20 (V08200315A01). The %Ds for 10 compounds (checked red on attached Form 7) were above the method maximum on 03-13-20 (VQ200313B01). The %Ds for 7 compounds (checked red on attached Form 7) were above the method maximum on 03-15-20 (V08200315A01). No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no RRF is less than 0.010.

The RRFs for target compounds were not below the allowable minimum (0.010 for all compounds except 0.001 for 1,4-dioxane), as required.

The %Ds for 8 compounds (circled red on attached Form 7) were above the allowable maximum (25%) on 03-13-20 (VQ200313B01). The %Ds for 6 compounds (circled red on attached Form 7) were above the allowable maximum (25%) on 03-15-20 (V08200315A01). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analyses of the method blanks reported target compounds as not detected. Trip blank TB03092020 contained a trace of acetone (4.7 ug/L). Positive results for acetone that are less than 10 times the trip blank level should be reported as not detected (U) in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples and trip blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum, but 2 of 2 percent recoveries (%Rs) for 1,1,1-trichloroethane and 1 of 2 %Rs for cis-1,2-dichloroethene were above QC limits for aqueous MS/MSD sample OSMW-3. The positive result for cis-1,2-dichloroethene should be considered estimated, biased high (J+) in sample OSMW-3.

Laboratory Control Sample: The relative percent differences (RPDs) for target compounds were below the allowable maximum, but 1 of 2 percent recoveries (%Rs) for 1,4-dioxane was above QC limits for aqueous samples WG1351377-3 and WG1351377-4. The RPDs for target compounds were below the allowable maximum, but 1 of 2 %Rs for bromomethane was above QC limits for aqueous samples WG1351709-3 and WG1351709-4. Positive results for these compounds should be considered estimated, biased high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for applicable compounds were below the allowable maximum (20%) for aqueous field duplicate pair GZ-22D/DUP-03092020 (attached table), as required.

Compound ID: Checked compounds and surrogates were within GC/MS quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

## Volatiles

### Calculations for Field Duplicate Relative Percent Difference (RPD) SDG No. L2010545

S1= GZ-22D

S2= DUP-03092020

Analyte	S1	S2	RPD (%)
1,2-Dichloroethane	21	20	5%
Benzene	2.1	1.9	10%
Vinyl chloride	6.7	7.1	6%
trans-1,2-Dichloroethene	81	77	5%
Trichloroethene	<b>0.23</b>	<b>0.32</b>	ND
Methyl tert butyl ether	<b>1.7</b>	<b>1.3</b>	ND
cis-1,2-Dichloroethene	4.7	4.3	9%
Cyclohexane	<b>0.78</b>	<b>0.76</b>	ND
Methylcyclohexane	<b>0.65</b>	ND	ND

\* RPD is above the allowable maximum waters 20%.

Results are in units of ug/L.

**Bold numbers were values that are below the CRQL or above the high standard.**

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

**Laboratory Control Sample Summary**  
**Form 3**  
**Volatiles**

Client : Sterling Environmental Eng  
Project Name : 441/442 WAVERLY AVENUE  
Matrix : WATER  
LCS Sample ID : WG1351377-3 Analysis Date : 03/13/20 09:27 File ID : VQ200313B01  
LCSD Sample ID : WG1351377-4 Analysis Date : 03/13/20 09:57 File ID : VQ200313B02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	10	100	10	9.4	94	6	70-130	20
1,1-Dichloroethane	10	9.7	97	10	9.4	94	3	70-130	20
Chloroform	10	11	110	10	11	110	0	70-130	20
Carbon tetrachloride	10	13	130	10	12	120	8	63-132	20
1,2-Dichloropropane	10	9.0	90	10	8.9	89	1	70-130	20
Dibromochloromethane	10	10	100	10	10	100	0	63-130	20
1,1,2-Trichloroethane	10	8.8	88	10	8.8	88	0	70-130	20
Tetrachloroethene	10	10	100	10	9.6	96	4	70-130	20
Chlorobenzene	10	9.4	94	10	9.1	91	3	75-130	20
Trichlorofluoromethane	10	13	130	10	12	120	8	62-150	20
1,2-Dichloroethane	10	11	110	10	12	120	9	70-130	20
1,1,1-Trichloroethane	10	12	120	10	12	120	0	67-130	20
Bromodichloromethane	10	11	110	10	11	110	0	67-130	20
trans-1,3-Dichloropropene	10	10	100	10	10	100	0	70-130	20
cis-1,3-Dichloropropene	10	11	110	10	11	110	0	70-130	20
Bromoform	10	7.9	79	10	8.1	81	3	54-136	20
1,1,2,2-Tetrachloroethane	10	6.7	67	10	7.0	70	4	67-130	20
Benzene	10	10	100	10	10	100	0	70-130	20
Toluene	10	9.4	94	10	9.1	91	3	70-130	20
Ethylbenzene	10	9.4	94	10	8.9	89	5	70-130	20
Chloromethane	10	7.9	79	10	7.7	77	3	64-130	20
Bromomethane	10	12	120	10	12	120	0	39-139	20
Vinyl chloride	10	8.8	88	10	8.5	85	3	55-140	20
Chloroethane	10	9.7	97	10	9.6	96	1	55-138	20
1,1-Dichloroethene	10	11	110	10	10	100	10	61-145	20
trans-1,2-Dichloroethene	10	11	110	10	10	100	10	70-130	20

**Laboratory Control Sample Summary**  
**Form 3**  
**Volatiles**

Client : Sterling Environmental Eng  
 Project Name : 441/442 WAVERLY AVENUE  
 Matrix : WATER  
 LCS Sample ID : WG1351377-3 Analysis Date : 03/13/20 09:27 File ID : VQ200313B01  
 LCSD Sample ID : WG1351377-4 Analysis Date : 03/13/20 09:57 File ID : VQ200313B02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate					
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Trichloroethene	10	11	110	10	10	100	10	70-130	20
1,2-Dichlorobenzene	10	9.1	91	10	9.1	91	0	70-130	20
1,3-Dichlorobenzene	10	9.3	93	10	9.2	92	1	70-130	20
1,4-Dichlorobenzene	10	9.5	95	10	9.3	93	2	70-130	20
Methyl tert butyl ether	10	10	100	10	11	110	10	63-130	20
p/m-Xylene	20	21	105	20	20	100	5	70-130	20
o-Xylene	20	21	105	20	20	100	5	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Styrene	20	21	105	20	20	100	5	70-130	20
Dichlorodifluoromethane	10	8.4	84	10	7.8	78	7	36-147	20
Acetone	10	10	100	10	11	110	10	58-148	20
Carbon disulfide	10	10	100	10	9.9	99	1	51-130	20
2-Butanone	10	9.3	93	10	10	100	7	63-138	20
4-Methyl-2-pentanone	10	7.0	70	10	7.4	74	6	59-130	20
2-Hexanone	10	7.4	74	10	8.1	81	9	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
1,2-Dibromoethane	10	9.0	90	10	9.2	92	2	70-130	20
1,2-Dibromo-3-chloropropane	10	7.0	70	10	7.7	77	10	41-144	20
Isopropylbenzene	10	8.4	84	10	8.0	80	5	70-130	20
1,2,3-Trichlorobenzene	10	8.6	86	10	9.1	91	6	70-130	20
1,2,4-Trichlorobenzene	10	8.9	89	10	9.0	90	1	70-130	20
Methyl Acetate	10	9.2	92	10	10	100	8	70-130	20
Cyclohexane	10	8.9	89	10	8.1	81	9	70-130	20
1,4-Dioxane	500	780	156	500	860	172 Q	10	56-162	20
Freon-113	10	12	120	10	11	110	9	70-130	20
Methyl cyclohexane	10	9.6	96	10	8.6	86	11	70-130	20



**Laboratory Control Sample Summary**  
**Form 3**  
**Volatiles**

Client : Sterling Environmental Eng  
Project Name : 441/442 WAVERLY AVENUE  
Matrix : WATER  
LCS Sample ID : WG1351709-3 Analysis Date : 03/15/20 13:28 File ID : V08200315A01  
LCSD Sample ID : WG1351709-4 Analysis Date : 03/15/20 13:50 File ID : V08200315A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate					
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	10	100	10	9.9	99	1	70-130	20
1,1-Dichloroethane	10	11	110	10	10	100	10	70-130	20
Chloroform	10	12	120	10	11	110	9	70-130	20
Carbon tetrachloride	10	12	120	10	11	110	9	63-132	20
1,2-Dichloropropane	10	10	100	10	9.8	98	2	70-130	20
Dibromochloromethane	10	10	100	10	10	100	0	63-130	20
1,1,2-Trichloroethane	10	8.9	89	10	9.2	92	3	70-130	20
Tetrachloroethene	10	9.4	94	10	9.4	94	0	70-130	20
Chlorobenzene	10	9.8	98	10	9.8	98	0	75-130	20
Trichlorofluoromethane	10	13	130	10	13	130	0	62-150	20
1,2-Dichloroethane	10	11	110	10	12	120	9	70-130	20
1,1,1-Trichloroethane	10	13	130	10	12	120	8	67-130	20
Bromodichloromethane	10	11	110	10	11	110	0	67-130	20
trans-1,3-Dichloropropene	10	9.4	94	10	9.9	99	5	70-130	20
cis-1,3-Dichloropropene	10	10	100	10	10	100	0	70-130	20
Bromoform	10	9.6	96	10	10	100	4	54-136	20
1,1,2,2-Tetrachloroethane	10	8.3	83	10	9.3	93	11	67-130	20
Benzene	10	10	100	10	10	100	0	70-130	20
Toluene	10	9.5	95	10	9.6	96	1	70-130	20
Ethylbenzene	10	9.9	99	10	9.9	99	0	70-130	20
Chloromethane	10	11	110	10	10	100	10	64-130	20
Bromomethane	10	14	140 Q	10	13	130	7	39-139	20
Vinyl chloride	10	11	110	10	11	110	0	55-140	20
Chloroethane	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	10	11	110	10	11	110	0	61-145	20
trans-1,2-Dichloroethene	10	11	110	10	10	100	10	70-130	20

**Laboratory Control Sample Summary**  
**Form 3**  
**Volatiles**

**Client** : Sterling Environmental Eng                   **Lab Number** : L2010545  
**Project Name** : 441/442 WAVERLY AVENUE               **Project Number** : 28012  
**Matrix** : WATER  
**LCS Sample ID** : WG1351709-3   **Analysis Date** : 03/15/20 13:28   **File ID** : V08200315A01  
**LCSD Sample ID** : WG1351709-4   **Analysis Date** : 03/15/20 13:50   **File ID** : V08200315A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate					Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD			
Trichloroethene	10	12	120	10	12	120	0	70-130	20	
1,2-Dichlorobenzene	10	9.9	99	10	10	100	1	70-130	20	
1,3-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20	
1,4-Dichlorobenzene	10	9.6	96	10	10	100	4	70-130	20	
Methyl tert butyl ether	10	10	100	10	11	110	10	63-130	20	
p/m-Xylene	20	20	100	20	20	100	0	70-130	20	
o-Xylene	20	20	100	20	20	100	0	70-130	20	
cis-1,2-Dichloroethene	10	11	110	10	10	100	10	70-130	20	
Styrene	20	20	100	20	21	105	5	70-130	20	
Dichlorodifluoromethane	10	13	130	10	13	130	0	36-147	20	
Acetone	10	8.8	88	10	10	100	13	58-148	20	
Carbon disulfide	10	10	100	10	10	100	0	51-130	20	
2-Butanone	10	9.0	90	10	11	110	20	63-138	20	
4-Methyl-2-pentanone	10	7.5	75	10	8.8	88	16	59-130	20	
2-Hexanone	10	7.4	74	10	8.6	86	15	57-130	20	
Bromochloromethane	10	12	120	10	12	120	0	70-130	20	
1,2-Dibromoethane	10	9.4	94	10	10	100	6	70-130	20	
1,2-Dibromo-3-chloropropane	10	8.6	86	10	10	100	15	41-144	20	
Isopropylbenzene	10	10	100	10	10	100	0	70-130	20	
1,2,3-Trichlorobenzene	10	9.1	91	10	10	100	9	70-130	20	
1,2,4-Trichlorobenzene	10	9.4	94	10	10	100	6	70-130	20	
Methyl Acetate	10	9.1	91	10	9.7	97	6	70-130	20	
Cyclohexane	10	9.9	99	10	9.6	96	3	70-130	20	
1,4-Dioxane	500	450	90	500	480	96	6	56-162	20	
Freon-113	10	12	120	10	11	110	9	70-130	20	
Methyl cyclohexane	10	9.8	98	10	9.7	97	1	70-130	20	



**Matrix Spike Sample Summary**  
**Form 3**  
**Volatiles**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Client Sample ID	: OSMW-3	Matrix	: WATER
Lab Sample ID	: L2010545-05	Analysis Date	: 03/15/20 19:40
Matrix Spike	: WG1351709-6	MS Analysis Date	: 03/15/20 22:14
Matrix Spike Dup	: WG1351709-7	MSD Analysis Date	: 03/15/20 22:36

Parameter	Matrix Spike Sample			Matrix Spike Duplicate					RPD	Recovery Limits	RPD Limit
	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R				
Methylene chloride	ND	250	260	104	250	260	104	0	70-130	20	
1,1-Dichloroethane	ND	250	270	108	250	280	112	4	70-130	20	
Chloroform	ND	250	300	120	250	300	120	0	70-130	20	
Carbon tetrachloride	ND	250	300	120	250	320	128	6	63-132	20	
1,2-Dichloropropane	ND	250	240	96	250	260	104	8	70-130	20	
Dibromochloromethane	ND	250	260	104	250	260	104	0	63-130	20	
1,1,2-Trichloroethane	ND	250	220	88	250	240	96	9	70-130	20	
Tetrachloroethene	2300	250	2400 NA	40 Q	250	2500	80	4	70-130	20	
Chlorobenzene	ND	250	240	96	250	250	100	4	75-130	20	
Trichlorofluoromethane	ND	250	340	136	250	360	144	6	62-150	20	
1,2-Dichloroethane	ND	250	290	116	250	290	116	0	70-130	20	
1,1,1-Trichloroethane	ND	250	330	132 Q	250	330	132 Q	0	67-130	20	
Bromodichloromethane	ND	250	270	108	250	280	112	4	67-130	20	
trans-1,3-Dichloropropene	ND	250	230	92	250	240	96	4	70-130	20	
cis-1,3-Dichloropropene	ND	250	240	96	250	250	100	4	70-130	20	
Bromoform	ND	250	240	96	250	250	100	4	54-136	20	
1,1,2,2-Tetrachloroethane	ND	250	210	84	250	220	88	5	67-130	20	
Benzene	ND	250	260	104	250	270	108	4	70-130	20	
Toluene	ND	250	240	96	250	240	96	0	70-130	20	
Ethylbenzene	ND	250	240	96	250	250	100	4	70-130	20	
Chloromethane	ND	250	250	100	250	270	108	8	64-130	20	
Bromomethane	ND	250	240	96	250	270	108	12	39-139	20	

NA - Not applicable, the sample concentration was greater than 4 times the spiking level; therefore, valid percent recoveries could not be calculated.



**Matrix Spike Sample Summary**  
**Form 3**  
**Volatiles**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Client Sample ID	: OSMW-3	Matrix	: WATER
Lab Sample ID	: L2010545-05	Analysis Date	: 03/15/20 19:40
Matrix Spike	: WG1351709-6	MS Analysis Date	: 03/15/20 22:14
Matrix Spike Dup	: WG1351709-7	MSD Analysis Date	: 03/15/20 22:36

Parameter	Matrix Spike Sample			Matrix Spike Duplicate					Recovery Limits	RPD Limit
	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD		
Vinyl chloride	ND	250	280	112	250	290	116	4	55-140	20
Chloroethane	ND	250	320	128	250	320	128	0	55-138	20
1,1-Dichloroethene	ND	250	290	116	250	300	120	3	61-145	20
trans-1,2-Dichloroethene	ND	250	280	112	250	280	112	0	70-130	20
Trichloroethene	340	250	610	108	250	640	120	5	70-130	20
1,2-Dichlorobenzene	ND	250	240	96	250	240	96	0	70-130	20
1,3-Dichlorobenzene	ND	250	240	96	250	240	96	0	70-130	20
1,4-Dichlorobenzene	ND	250	230	92	250	240	96	4	70-130	20
Methyl tert butyl ether	ND	250	250	100	250	270	108	8	63-130	20
p/m-Xylene	ND	500	490	98	500	510	102	4	70-130	20
o-Xylene	ND	500	500	100	500	520	104	4	70-130	20
cis-1,2-Dichloroethene	42J	250	310	124	250	330	132 Q	6	70-130	20
Styrene	ND	500	500	100	500	520	104	4	70-130	20
Dichlorodifluoromethane	ND	250	280	112	250	320	128	13	36-147	20
Acetone	ND	250	240	96	250	260	104	8	56-148	20
Carbon disulfide	ND	250	260	104	250	280	112	7	51-130	20
2-Butanone	ND	250	240	96	250	250	100	4	63-138	20
4-Methyl-2-pentanone	ND	250	210	84	250	210	84	0	59-130	20
2-Hexanone	ND	250	190	76	250	210	84	10	57-130	20
Bromochloromethane	ND	250	280	112	250	290	116	4	70-130	20
1,2-Dibromoethane	ND	250	240	96	250	250	100	4	70-130	20
1,2-Dibromo-3-chloropropane	ND	250	210	84	250	240	96	13	41-144	20

**Matrix Spike Sample Summary**  
**Form 3**  
**Volatiles**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Client Sample ID	: OSMW-3	Matrix	: WATER
Lab Sample ID	: L2010545-05	Analysis Date	: 03/15/20 19:40
Matrix Spike	: WG1351709-6	MS Analysis Date	: 03/15/20 22:14
Matrix Spike Dup	: WG1351709-7	MSD Analysis Date	: 03/15/20 22:36

Parameter	Matrix Spike Sample				Matrix Spike Duplicate				RPD	Recovery Limits	RPD Limit
	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R				
Isopropylbenzene	ND	250	240	96	250	250	100	4	70-130	20	
1,2,3-Trichlorobenzene	ND	250	220	88	250	230	92	4	70-130	20	
1,2,4-Trichlorobenzene	ND	250	210	84	250	220	88	5	70-130	20	
Methyl Acetate	ND	250	230	92	250	240	96	4	70-130	20	
Cyclohexane	ND	250	230J	92	250	250	100	8	70-130	20	
1,4-Dioxane	ND	12500	12000	96	12500	12000	96	0	56-162	20	
Freon-113	ND	250	240	96	250	270	108	12	70-130	20	
Methyl cyclohexane	ND	250	210J	84	250	230J	92	9	70-130	20	

**Initial Calibration Summary**  
**Form 6**  
**Volatiles**

<b>Client</b>	: Sterling Environmental Eng	<b>Lab Number</b>	: L2010545
<b>Project Name</b>	: 441/442 WAVERLY AVENUE	<b>Project Number</b>	: 28012
<b>Instrument ID</b>	: QUIMBY	<b>Ical Ref</b>	: ICAL16459
<b>Calibration dates</b>	: 01/22/20 07:04    01/22/20 10:38		

Calibration Files

L11 =VQ200122A03.D L1 =VQ200122A04.D L2 =VQ200122A05.D L3 =VQ200122A06.D L4 =VQ200122A07.D  
L6 =VQ200122A08.D L8 =VQ200122A09.D L10 =VQ200122A10.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
-----ISTD-----										
1) I Fluorobenzene										
2) TP Dichlorodifluo	0.389	0.525	0.399	0.444	0.452	0.446	0.450	0.444	9.95	
3) TP Chloromethane	0.862	1.048	0.858	0.880	0.896	0.885	0.865	0.899	7.46	
4) TC Vinyl chloride	0.609	0.615	0.810	0.662	0.693	0.714	0.702	0.709	9.23	
5) TP Bromomethane	0.327	0.396	0.308	0.279	0.279	0.270	0.271	0.304	14.98	
6) TP Chloroethane	0.364	0.468	0.391	0.403	0.413	0.404	0.329	0.396	10.86	
7) TP Trichlorofluor	0.604	0.796	0.590	0.669	0.688	0.680	0.690	0.674	10.05	
8) TP Ethyl ether	0.202	0.208	0.177	0.184	0.183	0.188	0.185	0.190	5.98	
10) TC 1,1-Dichloroet	0.375	0.460	0.366	0.392	0.396	0.395	0.395	0.397	7.60	
11) TP Carbon disulfide	1.141	1.372	1.110	1.183	1.210	1.211	1.216	1.206	6.91	
12) TP Freon-113	0.314	0.445	0.313	0.399	0.408	0.406	0.408	0.385	13.24	
13) TP Iodomethane				0.104	0.224	0.393	0.469	0.472	0.481	*Q
14) TP Acrolein				0.015	0.016	0.019	0.023	0.035	0.044	*Q
15) TP Methylene chlo	0.540	0.539	0.441	0.446	0.454	0.459	0.452	0.476	20	
17) TP Acetone	0.157	0.106	0.082	0.085	0.084	0.090	0.084	*L	0.9989	
18) TP trans-1,2-Dich	0.425	0.534	0.428	0.448	0.457	0.459	0.460	0.459	7.90	
19) TP Methyl acetate	0.292	0.294	0.255	0.262	0.253	0.266	0.258	0.269	6.51	
21) TP Methyl tert butyl ether	0.979	1.002	0.868	0.886	0.892	0.931	0.917	0.925	5.34	
22) TP tert-Butyl alc	0.023	0.023	0.020	0.021	0.020	0.024	0.023	0.022#	6.74	
24) TP Disopropyl ether	2.120	2.310	2.017	2.106	2.147	2.186	2.123	2.144	4.17	
25) TP 1,1-Dichloroet	1.133	1.305	1.097	1.125	1.152	1.151	1.148	1.159	5.83	
26) TP Halothane	0.338	0.407	0.336	0.360	0.370	0.370	0.374	0.365	6.63	
27) TP Acrylonitrile	0.109	0.122	0.110	0.114	0.115	0.121	0.119	0.116	4.59	
28) TP Ethyl tert-but	1.604	1.691	1.507	1.571	1.593	1.640	1.609	1.602	3.55	
29) TP Vinyl acetate	1.170	1.188	1.080	1.148	1.182	1.215	1.182	1.166	3.68	
30) TP cis-1,2-Dichlo	0.570	0.628	0.525	0.536	0.550	0.554	0.547	0.559	6.08	
31) TP 2,2-Dichloropr	0.735	0.874	0.725	0.777	0.818	0.813	0.812	0.794	6.54	
32) TP n-propyl bromide	1.015	1.229	1.223	1.204	1.253	1.281	1.242	1.207	7.30	
33) TP Bromochloromet	0.193	0.223	0.194	0.196	0.194	0.195	0.186	0.197	6.00	
34) TP Cyclohexane				1.277	0.928	1.291	1.346	1.356	1.354	1.259
35) TC Chloroform				0.872	0.973	0.810	0.836	0.850	0.854	0.862
36) TP Ethyl acetate				0.343	0.350	0.312	0.326	0.327	0.349	0.339
37) TP Carbon tetrachloride	0.586	0.615	0.755	0.584	0.684	0.707	0.709	0.721	9.86	
38) TP Tetrahydrofuran				0.096	0.108	0.091	0.103	0.098	0.106	0.120
39) S Dibromofluoromethane	0.227	0.225	0.226	0.224	0.223	0.225	0.228	0.226	0.226	0.75
40) TP 1,1,1-Trichlor				0.731	0.879	0.706	0.778	0.800	0.799	0.802
									7.13	

ave → 0.98

# **Initial Calibration Summary**

## **Form 6**

### **Volatiles**

<b>Client</b>	: Sterling Environmental Eng	<b>Lab Number</b>	: L2010545
<b>Project Name</b>	: 441/442 WAVERLY AVENUE	<b>Project Number</b>	: 28012
<b>Instrument ID</b>	: QUIMBY	<b>Ical Ref</b>	: ICAL16459
<b>Calibration dates</b>	: 01/22/20 07:04    01/22/20 10:38		

## Calibration Files

L11 =VQ200122A03.D L1 =VQ200122A04.D L2 =VQ200122A05.D L3 =VQ200122A06.D L4 =VQ200122A07.D  
L6 =VQ200122A08.D L8 =VQ200122A09.D L10 =VQ200122A10.D



**Initial Calibration Summary**  
**Form 6**  
**Volatiles**

<b>Client</b>	: Sterling Environmental Eng	<b>Lab Number</b>	: L2010545
<b>Project Name</b>	: 441/442 WAVERLY AVENUE	<b>Project Number</b>	: 28012
<b>Instrument ID</b>	: QUIMBY	<b>Ical Ref</b>	: ICAL16459
<b>Calibration dates</b>	: 01/22/20 07:04    01/22/20 10:38		

Calibration Files

L11 =VQ200122A03.D L1 =VQ200122A04.D L2 =VQ200122A05.D L3 =VQ200122A06.D L4 =VQ200122A07.D  
L6 =VQ200122A08.D L8 =VQ200122A09.D L10 =VQ200122A10.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP n-Propylbenzene	7.528	8.730	7.037	8.542	8.779	8.650	8.698	8.280	8.46	
91) TP 1,4-Dichlorobu	2.796	2.839	2.294	2.328	2.243	2.263	2.236	2.428	11.03	
92) TP 1,1,2,2-Tetra	1.321	1.335	1.077	1.056	0.993	1.009	1.006	1.114	13.42	
93) TP 4-Ethyltoluene	5.337	6.349	5.264	6.184	6.484	6.454	6.587	6.094	9.14	
94) TP 2-Chlorotoluene	5.316	6.048	4.861	5.396	5.395	5.349	5.885	5.464	7.19	
95) TP 1,3,5-Trimethy	4.632	5.185	4.472	4.850	5.081	4.998	5.055	4.896	5.31	
96) TP 1,2,3-Trichlor	1.232	1.129	0.858	0.885	0.841	0.863	0.851	*L	0.9997	
97) TP trans-1,4-Dich	0.357	0.423	0.373	0.387	0.382	0.399	0.396	0.388	5.44	
98) TP 4-Chlorotoluene	4.564	5.391	4.486	4.962	5.127	5.099	5.174	4.972	6.67	
99) TP tert-Butylbenzene	3.855	4.805	3.813	4.772	4.997	4.992	5.127	4.623	11.95	
102) TP 1,2,4-Trimethyl	4.439	4.754	4.170	4.374	4.645	4.596	4.673	4.521	4.51	
103) TP sec-Butylbenzene	4.746	6.329	5.051	6.673	7.014	6.988	7.127	*L	0.9982	
104) TP p-Isopropyltol	3.731	4.873	4.208	5.327	5.800	5.807	5.888	*L	0.9980	
105) TP 1,3-Dichlorobu	2.901	3.339	2.772	2.996	3.022	3.009	3.000	3.006	5.71	
106) TP 1,4-Dichlorobu	2.657	3.076	2.604	2.831	2.892	2.891	2.892	2.835	5.62	
107) TP p-Diethylbenzene	2.383	2.244	2.771	3.091	3.112	3.179	2.797	14.38		
108) TP n-Butylbenzene	2.456	3.656	3.405	4.431	4.918	4.939	5.038	*Q	0.9986	
109) TP 1,2-Dichlorobu	2.648	2.936	2.452	2.568	2.574	2.568	2.567	2.616	5.82	
110) TP 1,2,4,5-Tetram	3.048	3.713	3.167	2.996	2.801	2.739	2.905	3.053	10.67	
111) TP 1,2-Dibromo-3-	0.145	0.135	0.142	0.141	0.148	0.148	0.143		3.48	
112) TP 1,3,5-Trichlor	1.217	1.420	1.346	1.444	1.541	1.547	1.592	1.444	9.11	
113) TP Hexachlorobuta	0.437	0.617	0.531	0.837	0.917	0.933		*Q	0.9965	
114) TP 1,2,4-Trichlor	0.708	0.923	1.057	1.148	1.219	1.241	1.296	*L	0.9905	
115) TP Naphthalene	1.183	1.454	1.561	1.613	1.689	1.754	1.795	1.578	13.27	
116) TP 1,2,3-Trichlor	0.607	0.874	0.896	0.956	0.985	1.005	1.046	*L	0.9990	

**Initial Calibration Summary**  
**Form 6**  
**Volatiles**

<b>Client</b>	<b>: Sterling Environmental Eng</b>	<b>Lab Number</b>	<b>: L2010545</b>
<b>Project Name</b>	<b>: 441/442 WAVERLY AVENUE</b>	<b>Project Number</b>	<b>: 28012</b>
<b>Instrument ID</b>	<b>: VOA108</b>	<b>Ical Ref</b>	<b>: ICAL16564</b>
<b>Calibration dates</b>	<b>: 02/26/20 03:56      02/26/20 07:13</b>		

Calibration Files

L11 =V08200226A03.D L1 =V08200226A04.D L2 =V08200226A06.D L3 =V08200226A08.D L4 =V08200226A09.D  
L6 =V08200226A10.D L8 =V08200226A11.D L10 =V08200226A12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
-----ISTD-----										
1) I Fluorobenzene	0.213	0.191	0.185	0.209	0.225	0.216	0.220	0.208	7.16	
2) TP Dichlorodifluo	0.496	0.425	0.401	0.392	0.408	0.400	0.418	0.420	8.39	
3) TP Chloromethane	0.226	0.327	0.282	0.285	0.315	0.336	0.327	0.335	0.304	12.49
4) TC Vinyl chloride	0.162	0.121	0.121	0.129	0.141	0.147	0.157	0.140	11.98	
5) TP Bromomethane	0.168	0.139	0.130	0.134	0.131	0.125	0.122	0.136	11.25	
6) TP Chloroethane	0.317	0.330	0.307	0.349	0.381	0.370	0.373	0.347	8.50	
7) TP Trichlorofluor	0.125	0.111	0.123	0.125	0.132	0.127	0.133	0.125	5.80	
8) TP Ethyl ether	0.211	0.187	0.199	0.217	0.235	0.228	0.233	0.216	8.35	
10) TC 1,1-Dichloroet	0.700	0.609	0.576	0.628	0.673	0.656	0.673	0.645	6.65	
11) TP Carbon disulfide	0.192	0.192	0.185	0.220	0.235	0.219	0.229	0.210	9.56	
12) TP Freon-113	0.037	0.044	0.050	0.053	0.053	0.055	0.049#		14.04	
14) TP Acrolein	0.295	0.240	0.245	0.243	0.259	0.249	0.255	0.255	7.37	
15) TP Methylene chlo	0.081	0.080	0.080	0.074	0.083	0.078	0.081	0.079	3.63	
17) TP Acetone	0.250	0.217	0.211	0.235	0.245	0.239	0.248	0.235	6.55	
18) TP trans-1,2-Dich	0.227	0.195	0.206	0.203	0.218	0.211	0.220	0.212	5.19	
19) TP Methyl acetate	0.659	0.536	0.570	0.577	0.632	0.615	0.638	0.604	7.27	
20) TP Methyl tert butyl ether	0.016	0.017	0.020	0.020	0.022	0.022	0.023	0.020#	13.47	
21) TP tert-Butyl alc	1.449	1.251	1.239	1.285	1.376	1.330	1.357	1.327	5.63	
22) TP Diisopropyl ether	0.583	0.500	0.505	0.531	0.559	0.541	0.555	0.539	5.52	
23) TP 1,1-Dichloroet	0.177	0.174	0.173	0.198	0.206	0.204	0.204	0.191	8.09	
24) TP Halothane	0.071	0.084	0.101	0.104	0.110	0.107	0.107	0.098	14.90	
25) TP Acrylonitrile	0.975	0.829	0.855	0.881	0.974	0.962	0.993	0.924	7.24	
26) TP Ethyl tert-but	0.776	0.734	0.813	0.836	0.927	0.900	0.931	0.845	9.10	
27) TP Vinyl acetate	0.332	0.271	0.275	0.288	0.295	0.298	0.307	0.295	6.97	
28) TP cis-1,2-Dichlo	0.291	0.270	0.270	0.303	0.325	0.318	0.331	0.301	8.39	
29) TP 2,2-Dichloropr	0.126	0.116	0.130	0.130	0.137	0.135	0.132	0.129	5.33	
30) TP Bromochloromet	0.508	0.529	0.495	0.574	0.603	0.584	0.596	0.556	7.95	
31) TP Cyclohexane	0.496	0.430	0.430	0.447	0.471	0.458	0.471	0.457	5.29	
32) TC Chloroform	0.257	0.267	0.298	0.301	0.294	0.285	0.298	0.286	6.03	
33) TP Ethyl acetate	0.334	0.319	0.289	0.342	0.357	0.350	0.363	0.336	7.53	
34) TP Carbon tetrachloride	0.049	0.088	0.085	0.086	0.087	0.085	0.089	0.081	17.55	
35) TP Tetrahydrofuran	0.262	0.253	0.256	0.263	0.259	0.266	0.264	0.261	1.86	
36) S Dibromofluoromethane	0.376	0.356	0.359	0.402	0.423	0.419	0.427	0.395	7.74	
37) TP 1,1,1-Trichlor	0.107	0.133	0.151	0.152	0.148	0.140	0.151	0.140	11.70	
39) TP 2-Butanone	0.324	0.305	0.290	0.327	0.351	0.339	0.350	0.327	7.01	
40) TP 1,1-Dichloropr										

**Initial Calibration Summary**  
**Form 6**  
**Volatiles**

<b>Client</b>	<b>: Sterling Environmental Eng</b>	<b>Lab Number</b>	<b>: L2010545</b>
<b>Project Name</b>	<b>: 441/442 WAVERLY AVENUE</b>	<b>Project Number</b>	<b>: 28012</b>
<b>Instrument ID</b>	<b>: VOA108</b>	<b>Ical Ref</b>	<b>: ICAL16564</b>
<b>Calibration dates</b>	<b>: 02/26/20 03:56    02/26/20 07:13</b>		

Calibration Files

L11 =V08200226A03.D L1 =V08200226A04.D L2 =V08200226A06.D L3 =V08200226A08.D L4 =V08200226A09.D  
L6 =V08200226A10.D L8 =V08200226A11.D L10 =V08200226A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
41)	TP Benzene	0.708	1.141	0.934	0.896	0.940	1.001	0.971	0.993	0.948	12.80
42)	TP Tertiary-Amyl Methyl Ether	0.629	0.512	0.550	0.574	0.636	0.628	0.654	0.598	0.880	
43)	S 1,2-Dichloroethane-d4	0.313	0.313	0.311	0.305	0.298	0.305	0.299	0.303	0.306	1.98
44)	TP 1,2-Dichloroet	0.498	0.387	0.393	0.391	0.411	0.393	0.399	0.410	0.57	
47)	TP Methyl cyclohe	0.385	0.368	0.347	0.403	0.429	0.413	0.421	0.395	0.56	
48)	TP Trichloroethene	0.145	0.288	0.259	0.247	0.267	0.282	0.271	0.282	0.255	18.17
50)	TP Dibromomethane	0.181	0.135	0.143	0.144	0.156	0.153	0.157	0.153	0.153	9.61
51)	TC 1,2-Dichloropr	0.325	0.285	0.288	0.295	0.319	0.312	0.319	0.306	0.306	5.31
53)	TP 2-Chloroethyl	0.144	0.141	0.155	0.164	0.179	0.171	0.175	0.161	0.161	9.35
54)	TP Bromodichlorom	0.417	0.335	0.334	0.355	0.377	0.369	0.379	0.367	0.367	7.87
57)	TP 1,4-Dioxane	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	6.12
58)	TP cis-1,3-Dichlo	0.425	0.342	0.365	0.396	0.428	0.420	0.430	0.401	0.401	8.72
59)	I Chlorobenzene-d5										
60)	S Toluene-d8	1.339	1.344	1.346	1.321	1.334	1.336	1.324	1.341	1.336	0.69
61)	TC Toluene	1.007	0.875	0.799	0.828	0.879	0.870	0.876	0.876	0.876	7.44
62)	TP 4-Methyl-2-pen	0.101	0.113	0.127	0.133	0.153	0.151	0.152	0.133	0.133	15.49
63)	TP Tetrachloroethene	0.437	0.444	0.387	0.413	0.430	0.412	0.407	0.419	0.419	4.69
65)	TP trans-1,3-Dich	0.506	0.440	0.457	0.482	0.533	0.536	0.545	0.500	0.500	8.19
67)	TP Ethyl methacry	0.297	0.286	0.336	0.356	0.407	0.404	0.407	0.356	0.356	14.68
68)	TP 1,1,2-Trichlor	0.297	0.257	0.251	0.243	0.264	0.258	0.259	0.261	0.261	6.55
69)	TP Chlorodibromom	0.441	0.367	0.368	0.370	0.402	0.398	0.400	0.392	0.392	6.84
70)	TP 1,3-Dichloropr	0.611	0.504	0.494	0.485	0.516	0.509	0.506	0.518	0.518	8.18
71)	TP 1,2-Dibromoethane	0.329	0.293	0.291	0.295	0.321	0.317	0.318	0.309	0.309	5.06
72)	TP 2-Hexanone	0.178	0.224	0.263	0.275	0.312	0.310	0.305	0.267	0.267	18.84
73)	TP Chlorobenzene	1.279	1.013	0.928	0.940	0.994	0.976	0.966	1.014	1.014	11.92
74)	TC Ethylbenzene	1.938	1.514	1.490	1.559	1.647	1.617	1.590	1.622	1.622	9.22
75)	TP 1,1,2-Tetra-	0.478	0.371	0.347	0.364	0.392	0.383	0.382	0.388	0.388	10.86
76)	TP p/m Xylene	0.707	0.580	0.586	0.610	0.648	0.630	0.619	0.626	0.626	6.89
77)	TP o Xylene	0.684	0.563	0.570	0.586	0.609	0.594	0.581	0.598	0.598	6.80
78)	TP Styrene	1.076	0.966	0.962	0.973	1.005	0.983	0.964	0.990	0.990	4.13
79)	I 1,4-Dichlorobenzene-d4										
80)	TP Bromoform	0.518	0.423	0.414	0.427	0.458	0.450	0.418	0.444	0.444	8.23
82)	TP Isopropylbenzene	3.711	3.194	2.927	3.244	3.375	3.298	3.091	3.263	3.263	7.53
83)	S 4-Bromofluorobenzene	0.977	0.956	0.967	0.935	0.989	0.964	0.964	0.950	0.963	1.70
84)	TP Bromobenzene	1.039	0.827	0.752	0.777	0.830	0.821	0.775	0.832	0.832	11.57
85)	TP n-Propylbenzene	4.109	3.641	3.353	3.658	3.823	3.737	3.499	3.689	3.689	6.53

**Initial Calibration Summary**  
**Form 6**  
**Volatiles**

<b>Client</b>	: Sterling Environmental Eng	<b>Lab Number</b>	: L2010545
<b>Project Name</b>	: 441/442 WAVERLY AVENUE	<b>Project Number</b>	: 28012
<b>Instrument ID</b>	: VOA108	<b>Ical Ref</b>	: ICAL16564
<b>Calibration dates</b>	: 02/26/20 03:56    02/26/20 07:13		

Calibration Files

L11 =V08200226A03.D L1 =V08200226A04.D L2 =V08200226A06.D L3 =V08200226A08.D L4 =V08200226A09.D  
L6 =V08200226A10.D L8 =V08200226A11.D L10 =V08200226A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
86)	TP 1,4-Dichlorobutane		1.740	1.361	1.308	1.335	1.396	1.341	1.231	1.387	11.79
87)	TP 1,1,2,2-Tetrachloroethane		0.908	0.732	0.698	0.684	0.713	0.692	0.654	0.726	11.55
88)	TP 4-Ethyltoluene		3.376	2.955	2.765	2.992	3.151	3.112	2.937	3.041	6.39
89)	TP 2-Chlorotoluene		3.141	2.569	2.350	2.449	2.565	2.531	2.380	2.570	10.38
90)	TP 1,3,5-Trimethylbenzene		3.099	2.701	2.419	2.658	2.768	2.734	2.595	2.711	7.62
91)	TP 1,2,3-Trichloropropane		0.686	0.617	0.540	0.546	0.562	0.539	0.511	0.572	10.51
92)	TP trans-1,4-Dichloro-2-methylpropane		0.169	0.219	0.237	0.236	0.252	0.251	0.232	0.228	12.42
93)	TP 4-Chlorotoluene		2.743	2.366	2.107	2.231	2.325	2.300	2.173	2.321	8.91
94)	TP tert-Butylbenzene		3.208	2.935	2.540	2.785	2.882	2.869	2.711	2.847	7.25
95)	TP Pentachloroethane		0.466	0.586	0.437	0.443	0.438	0.467	0.435	0.467	11.56
97)	TP 1,2,4-Trimethylbenzene		2.919	2.595	2.394	2.625	2.763	2.742	2.613	2.665	6.17
98)	TP sec-Butylbenzene		3.684	3.251	2.854	3.176	3.312	3.250	3.095	3.232	7.75
99)	TP p-Isopropyltoluene		3.422	2.915	2.728	3.023	3.184	3.168	3.023	3.066	7.19
100)	TP 1,3-Dichlorobutane		1.899	1.528	1.403	1.474	1.546	1.549	1.490	1.556	10.27
101)	TP 1,4-Dichlorobutane		2.163	1.593	1.437	1.497	1.570	1.573	1.514	1.621	15.11
102)	TP p-Diethylbenzene		1.861	1.649	1.537	1.721	1.855	1.845	1.777	1.749	6.99
103)	TP n-Butylbenzene		2.861	2.498	2.269	2.503	2.661	2.650	2.529	2.567	7.13
104)	TP 1,2-Dichlorobutane		1.790	1.465	1.350	1.372	1.458	1.470	1.414	1.474	9.97
105)	TP 1,2,4,5-Tetramethylbenzene		1.654	2.041	2.544	2.916	2.989	2.891	*L		0.9980
106)	TP 1,2-Dibromo-3-chloropropane		0.088	0.097	0.100	0.104	0.120	0.124	0.125	0.108	13.69
107)	TP 1,3,5-Trichlorobutane		1.037	0.884	0.886	0.955	1.061	1.093	1.069	0.998	8.85
108)	TP Hexachlorobutane		0.403	0.393	0.336	0.372	0.409	0.420	0.413	0.392	7.48
109)	TP 1,2,4-Trichlorobutane		0.866	0.741	0.767	0.878	1.021	1.052	1.030	0.908	14.14
110)	TP Naphthalene		1.659	1.708	1.885	2.158	2.549	2.586	2.500	2.149	18.79
111)	TP 1,2,3-Trichlorobutane		0.681	0.684	0.718	0.808	0.939	0.958	0.941	0.818	15.50

# Calibration Verification Summary

## Form 7

### Volatile

Client : Sterling Environmental Eng  
 Project Name : 441/442 WAVERLY AVENUE  
 Instrument ID : QUIMBY  
 Lab File ID : VQ200313B01  
 Sample No : WG1351377-2  
 Channel :

Lab Number	: L2010545		
Project Number	: 28012		
Calibration Date	: 03/13/20 09:27		
Init. Calib. Date(s)	01/22/20	01/22/20	
Init. Calib. Times	07:04	10:38	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	76	0
Dichlorodifluoromethane	0.444	0.373	-	16	20	71	0
Chloromethane	✓ 0.899	0.709	-	21.1*	20	63	0
Vinyl chloride	0.689	0.61	-	11.5	20	70	0
Bromomethane	✓ 0.304	0.382	-	-25.7*	20	95	0
Chloroethane	0.396	0.386	-	2.5	20	75	0
Trichlorofluoromethane	✓ 0.674	0.867	-	-28.6*	20	112	0
Ethyl ether	0.19	0.192	-	-1.1	20	82	0
1,1-Dichloroethene	0.397	0.439	-	-10.6	20	92	0
Carbon disulfide	1.206	1.248	-	-3.5	20	86	0
Freon-113	0.385	0.452	-	-17.4	20	110	0
Methylene chloride	0.476	0.495	-	-4	20	86	0
Acetone	10	10.377	-	-3.8	20	85	0
trans-1,2-Dichloroethene	0.459	0.492	-	-7.2	20	88	0
Methyl acetate	0.269	0.249	-	7.4	20	75	0
Methyl tert-butyl ether	0.925	0.972	-	-5.1	20	86	0
tert-Butyl alcohol	0.022	0.021*	-	4.5	20	80	0
Diisopropyl ether	2.144	2.067	-	3.6	20	78	0
1,1-Dichloroethane	1.159	1.12	-	3.4	20	78	0
Halothane	0.365	0.395	-	-8.2	20	90	0
Acrylonitrile	0.116	0.095	-	18.1	20	66	0
Ethyl tert-butyl ether	1.602	1.451	-	9.4	20	74	0
Vinyl acetate	1.166	1.149	-	1.5	20	81	0
cis-1,2-Dichloroethene	0.559	0.561	-	-0.4	20	82	0
2,2-Dichloropropane	0.794	0.977	-	-23* NA	20	103	0
Bromochloromethane	0.197	0.217	-	-10.2	20	85	0
Cyclohexane	1.259	1.119	-	11.1	20	92	0
Chloroform	0.862	0.954	-	-10.7	20	90	0
Ethyl acetate	✓ 0.335	0.306	-	8.7	20	75	0
Carbon tetrachloride	✓ 0.67	0.85	-	-26.9*	20	111	0
Tetrahydrofuran	0.103	0.098	-	4.9	20	82	0
Dibromofluoromethane	0.226	0.24	-	-6.2	20	82	0
1,1,1-Trichloroethane	✓ 0.785	0.95	-	-21*	20	103	0
2-Butanone	0.137	0.128	-	6.6	20	76	0
1,1-Dichloropropene	0.706	0.799	-	-13.2	20	98	0
Benzene	2.044	2.098	-	-2.6	20	83	0
tert-Amyl methyl ether	1.045	1.017	-	2.7	20	80	0
1,2-Dichloroethane-d4	0.262	0.285	-	-8.8	20	84	0
1,2-Dichloroethane	0.596	0.666	-	-11.7	20	90	0
Methyl cyclohexane	10	9.573	-	4.3	20	107	0
Trichloroethene	0.508	0.565	-	-11.2	20	90	0
Dibromomethane	0.217	0.224	-	-3.2	20	84	0
1,2-Dichloropropane	0.599	0.539	-	10	20	74	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatile

Client : Sterling Environmental Eng  
 Project Name : 441/442 WAVERLY AVENUE  
 Instrument ID : QUIMBY  
 Lab File ID : VQ200313B01  
 Sample No : WG1351377-2  
 Channel :

Lab Number	: L2010545
Project Number	: 28012
Calibration Date	: 03/13/20 09:27
Init. Calib. Date(s)	: 01/22/20 01/22/20
Init. Calib. Times	: 07:04 10:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.601	0.679	-	-13	20	92	0
1,4-Dioxane	0.00138	0.00214*	-	-55.1*	20	117	0
cis-1,3-Dichloropropene	0.744	0.807	-	-8.5	20	87	-.01
Chlorobenzene-d5	1	1	-	0	20	86	0
Toluene-d8	1.398	1.363	-	2.5	20	82	0
Toluene	1.838	1.73	-	5.9	20	85	0
4-Methyl-2-pentanone	0.153	0.108	-	29.4*	20	65	0
Tetrachloroethene	0.745	0.755	-	-1.3	20	99	0
trans-1,3-Dichloropropene	0.863	0.868	-	-0.6	20	91	0
Ethyl methacrylate	0.521	0.432	-	17.1	20	77	-.01
1,1,2-Trichloroethane	0.376	0.331	-	12	20	79	0
Chlorodibromomethane	0.513	0.512	-	0.2	20	90	0
1,3-Dichloropropane	0.8	0.748	-	6.5	20	85	0
1,2-Dibromoethane	0.404	0.365	-	9.7	20	81	-.02
2-Hexanone	0.271	0.202	-	25.5*	20	70	-.01
Chlorobenzene	1.907	1.802	-	5.5	20	86	0
Ethylbenzene	3.478	3.258	-	6.3	20	90	0
1,1,1,2-Tetrachloroethane	0.651	0.667	-	-2.5	20	94	0
p/m Xylene	1.183	1.234	-	-4.3	20	101	0
o Xylene	1.09	1.149	-	-5.4	20	99	-.01
Styrene	1.753	1.845	-	-5.2	20	98	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	107	-.01
Bromoform	0.71	0.561	-	21*	20	88	-.01
Isopropylbenzene	7.598	6.353	-	16.4	20	103	-.02
4-Bromofluorobenzene	1.144	0.942	-	17.7	20	89	-.01
Bromobenzene	1.742	1.385	-	20.5* NA	20	90	0
n-Propylbenzene	8.28	6.981	-	15.7	20	106	0
1,4-Dichlorobutane	2.428	1.537	-	36.7* NA	20	72	0
1,1,2,2-Tetrachloroethane	1.114	0.746	-	33*	20	74	0
4-Ethyltoluene	6.094	5.823	-	4.4	20	118	0
2-Chlorotoluene	5.464	4.986	-	8.7	20	110	-.01
1,3,5-Trimethylbenzene	4.896	5.233	-	-6.9	20	125	0
1,2,3-Trichloropropane	10	8.154	-	18.5	20	90	-.02
trans-1,4-Dichloro-2-butene	0.388	0.269	-	30.7* NA	20	77	0
4-Chlorotoluene	4.972	4.342	-	12.7	20	103	-.01
tert-Butylbenzene	4.623	4.243	-	8.2	20	119	-.01
1,2,4-Trimethylbenzene	4.521	4.938	-	-9.2	20	127	0
sec-Butylbenzene	10	8.314	-	16.9	20	119	0
p-Isopropyltoluene	10	9.309	-	6.9	20	132	0
1,3-Dichlorobenzene	3.006	2.787	-	7.3	20	107	-.01
1,4-Dichlorobenzene	2.835	2.7	-	4.8	20	111	0
p-Diethylbenzene	2.797	2.825	-	-1	20	135	0
n-Butylbenzene	10	9.376	-	6.2	20	129	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Instrument ID	: QUIMBY	Calibration Date	: 03/13/20 09:27
Lab File ID	: VQ200313B01	Init. Calib. Date(s)	: 01/22/20      01/22/20
Sample No	: WG1351377-2	Init. Calib. Times	: 07:04      10:38
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	2.616	2.393	-	8.5	20	104	0
1,2,4,5-Tetramethylbenzene	3.053	3.167	-	-3.7	20	107	0
1,2-Dibromo-3-chloropropan	✓ 0.143	0.101	-	29.4*	20	80	0
1,3,5-Trichlorobenzene	1.444	1.581	-	-9.5	20	125	0
Hexachlorobutadiene	10	9.125	-	8.8	20	136	-.01
1,2,4-Trichlorobenzene	10	8.901	-	11	20	108	-.01
Naphthalene	1.578	1.316	-	16.6	20	90	0
1,2,3-Trichlorobenzene	10	8.593	-	14.1	20	101	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatile

Client : Sterling Environmental Eng  
 Project Name : 441/442 WAVERLY AVENUE  
 Instrument ID : VOA108  
 Lab File ID : V08200315A01  
 Sample No : WG1351709-2  
 Channel :

Lab Number : L2010545  
 Project Number : 28012  
 Calibration Date : 03/15/20 13:28  
 Init. Calib. Date(s) : 02/26/20 02/26/20  
 Init. Calib. Times : 03:56 07:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	64	0
Dichlorodifluoromethane	✓ 0.208	0.276	-	-32.7*	20	95	0
Chloromethane	0.42	0.454	-	-8.1	20	72	0
Vinyl chloride	0.304	0.335	-	-10.2	20	75	0
Bromomethane	✓ 0.14	0.19	-	-35.7*	20	101	0
Chloroethane	✓ 0.136	0.165	-	-21.3*	20	81	0
Trichlorofluoromethane	✓ 0.347	0.467	-	-34.6*	20	97	0
Ethyl ether	0.125	0.118	-	5.6	20	61	0
1,1-Dichloroethene	0.216	0.245	-	-13.4	20	79	0
Carbon disulfide	0.645	0.674	-	-4.5	20	75	0
Freon-113	0.21	0.242	-	-15.2	20	83	0
Acrolein	0.049	0.038*	-	22.4* MA	20	55	0
Methylene chloride	0.255	0.261	-	-2.4	20	68	0
Acetone	0.079	0.07*	-	11.4	20	56	0
trans-1,2-Dichloroethene	0.235	0.254	-	-8.1	20	77	0
Methyl acetate	0.212	0.193	-	9	20	60	0
Methyl tert-butyl ether	0.604	0.608	-	-0.7	20	68	0
tert-Butyl alcohol	0.02	0.018*	-	10	20	57	0
Diisopropyl ether	1.327	1.282	-	3.4	20	66	0
1,1-Dichloroethane	0.539	0.578	-	-7.2	20	73	0
Halothane	0.191	0.203	-	-6.3	20	75	0
Acrylonitrile	0.098	0.083	-	15.3	20	53	0
Ethyl tert-butyl ether	0.924	0.938	-	-1.5	20	70	0
Vinyl acetate	0.845	0.805	-	4.7	20	63	0
cis-1,2-Dichloroethene	0.295	0.32	-	-8.5	20	74	0
2,2-Dichloropropane	0.301	0.41	-	-36.2* MA	20	97	0
Bromochloromethane	0.129	0.15	-	-16.3	20	73	-0.01
Cyclohexane	0.556	0.552	-	0.7	20	71	0
Chloroform	0.457	0.53	-	-16	20	79	0
Ethyl acetate	0.286	0.252	-	11.9	20	54	0
Carbon tetrachloride	0.336	0.392	-	-16.7	20	86	0
Tetrahydrofuran	0.081	0.066	-	18.5	20	50	-0.01
Dibromofluoromethane	✓ 0.261	0.293	-	-12.3	20	71	0
1,1,1-Trichloroethane	✓ 0.395	0.498	-	-26.1*	20	88	0
2-Butanone	0.14	0.127	-	9.3	20	53	-0.01
1,1-Dichloropropene	0.327	0.348	-	-6.4	20	77	0
Benzene	0.948	0.992	-	-4.6	20	71	0
tert-Amyl methyl ether	0.598	0.573	-	4.2	20	66	0
1,2-Dichloroethane-d4	0.306	0.341	-	-11.4	20	71	0
1,2-Dichloroethane	0.41	0.468	-	-14.1	20	76	0
Methyl cyclohexane	0.395	0.389	-	1.5	20	72	0
Trichloroethene	0.255	0.296	-	-16.1	20	76	0
Dibromomethane	0.153	0.156	-	-2	20	69	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatile

Client : Sterling Environmental Eng  
 Project Name : 441/442 WAVERLY AVENUE  
 Instrument ID : VOA108  
 Lab File ID : V08200315A01  
 Sample No : WG1351709-2  
 Channel :

Lab Number	: L2010545	
Project Number	: 28012	
Calibration Date	: 03/15/20 13:28	
Init. Calib. Date(s)	02/26/20	02/26/20
Init. Calib. Times	03:56	07:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.306	0.307	-	-0.3	20	68	0
2-Chloroethyl vinyl ether	0.161	0.131	-	18.6	20	54	0
Bromodichloromethane	0.367	0.401	-	-9.3	20	77	0
1,4-Dioxane	0.00183	0.00165*	-	9.8	20	59	0
cis-1,3-Dichloropropene	0.401	0.411	-	-2.5	20	72	0
Chlorobenzene-d5	1	1	-	0	20	70	0
Toluene-d8	1.336	1.251	-	6.4	20	66	0
Toluene	0.876	0.83	-	5.3	20	73	0
4-Methyl-2-pentanone	0.133	0.099*	-	25.6*	20	54	0
Tetrachloroethene	0.419	0.392	-	6.4	20	71	0
trans-1,3-Dichloropropene	0.5	0.471	-	5.8	20	72	0
Ethyl methacrylate	0.356	0.278	-	21.9* NA	20	58	0
1,1,2-Trichloroethane	0.261	0.233	-	10.7	20	65	0
Chlorodibromomethane	0.392	0.392	-	0	20	74	0
1,3-Dichloropropane	0.518	0.473	-	8.7	20	67	0
1,2-Dibromoethane	0.309	0.291	-	5.8	20	70	0
2-Hexanone	0.267	0.198	-	25.8*	20	53	0
Chlorobenzene	1.014	0.99	-	2.4	20	74	0
Ethylbenzene	1.622	1.611	-	0.7	20	75	0
1,1,1,2-Tetrachloroethane	0.388	0.418	-	-7.7	20	84	0
p/m Xylene	0.626	0.643	-	-2.7	20	77	0
o Xylene	0.598	0.61	-	-2	20	75	0
Styrene	0.99	1.004	-	-1.4	20	73	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	71	0
Bromoform	0.444	0.429	-	3.4	20	74	0
Isopropylbenzene	3.263	3.248	-	0.5	20	79	0
4-Bromoiodobenzene	0.963	0.933	-	3.1	20	71	0
Bromobenzene	0.832	0.831	-	0.1	20	79	0
n-Propylbenzene	3.689	3.585	-	2.8	20	76	0
1,4-Dichlorobutane	1.387	1.173	-	15.4	20	64	0
1,1,2,2-Tetrachloroethane	0.726	0.606	-	16.5	20	62	0
4-Ethyltoluene	3.041	3.039	-	0.1	20	78	0
2-Chlorotoluene	2.57	2.553	-	0.7	20	77	0
1,3,5-Trimethylbenzene	2.711	2.717	-	-0.2	20	80	0
1,2,3-Trichloropropane	0.572	0.492	-	14	20	65	0
trans-1,4-Dichloro-2-butene	0.228	0.224	-	1.8	20	67	0
4-Chlorotoluene	2.321	2.311	-	0.4	20	78	0
tert-Butylbenzene	2.847	2.438	-	14.4	20	68	0
1,2,4-Trimethylbenzene	2.665	2.662	-	0.1	20	79	0
sec-Butylbenzene	3.232	3.169	-	1.9	20	79	0
p-Isopropyltoluene	3.066	3.081	-	-0.5	20	80	0
1,3-Dichlorobenzene	1.556	1.6	-	-2.8	20	81	0
1,4-Dichlorobenzene	1.621	1.556	-	4	20	77	0

\* Value outside of QC limits.



## Calibration Verification Summary

### Form 7

### Volatiles

Client	:	Sterling Environmental Eng	Lab Number	:	L2010545
Project Name	:	441/442 WAVERLY AVENUE	Project Number	:	28012
Instrument ID	:	VOA108	Calibration Date	:	03/15/20 13:28
Lab File ID	:	V08200315A01	Init. Calib. Date(s)	:	02/26/20 02/26/20
Sample No	:	WG1351709-2	Init. Calib. Times	:	03:56 07:13
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.749	1.704	-	2.6	20	79	0
n-Butylbenzene	2.567	2.508	-	2.3	20	79	0
1,2-Dichlorobenzene	1.474	1.455	-	1.3	20	77	0
1,2,4,5-Tetramethylbenzene	10	8.943	-	10.6	20	78	0
1,2-Dibromo-3-chloropropan	0.108	0.093	-	13.9	20	66	0
1,3,5-Trichlorobenzene	0.998	1.014	-	-1.6	20	81	0
Hexachlorobutadiene	0.392	0.408	-	-4.1	20	86	0
1,2,4-Trichlorobenzene	0.908	0.853	-	6.1	20	79	0
Naphthalene	2.149	1.661	-	22.7* <sup>NA</sup>	20	63	0
1,2,3-Trichlorobenzene	0.818	0.745	-	8.9	20	74	0

\* Value outside of QC limits.



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-01	Date Collected	: 03/09/20 11:10
Client ID	: OSMW-4	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 18:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B20	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		
			RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.16	0.50	0.16	J
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-01	Date Collected	: 03/09/20 11:10
Client ID	: OSMW-4	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 18:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B20	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L			Qualifier
			RL	MDL		
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70		U
79-01-6	Trichloroethene	ND	0.50	0.18		U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70		U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70		U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70		U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70		U
179601-23-1	p/m-Xylene	ND	2.5	0.70		U
95-47-6	o-Xylene	ND	2.5	0.70		U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70		U
100-42-5	Styrene	ND	2.5	0.70		U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0		U
67-64-1	Acetone	1.6	5.0	1.5	J	U
75-15-0	Carbon disulfide	ND	5.0	1.0		U
78-93-3	2-Butanone	ND	5.0	1.9		U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0		U
591-78-6	2-Hexanone	ND	5.0	1.0		U
74-97-5	Bromochloromethane	ND	2.5	0.70		U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65		U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70		U
98-82-8	Isopropylbenzene	ND	2.5	0.70		U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70		U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70		U
79-20-9	Methyl Acetate	ND	2.0	0.23		U
110-82-7	Cyclohexane	3.8	10	0.27	J	
123-91-1	1,4-Dioxane	ND	250	61.		U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-01	Date Collected	: 03/09/20 11:10
Client ID	: OSMW-4	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 18:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B20	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	1.3	10	0.40	J

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-02	Date Collected	: 03/09/20 12:50
Client ID	: GZ-22D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B21	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		
			RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	21	0.50	0.13	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	2.1	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	6.7	1.0	0.07	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-02	Date Collected	: 03/09/20 12:50
Client ID	: GZ-22D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B21	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	81	2.5	0.70	
79-01-6	Trichloroethene	0.23	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	1.7	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	4.7	2.5	0.70	
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	0.78	10	0.27	J
123-91-1	1,4-Dioxane	ND	250	61.	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-02	Date Collected	: 03/09/20 12:50
Client ID	: GZ-22D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B21	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	0.65	10	0.40	J

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-03	Date Collected	: 03/09/20 13:45
Client ID	: GZ-21D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B22	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	77	0.50	0.13	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	1.4	1.0	0.07	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-03	Date Collected	: 03/09/20 13:45
Client ID	: GZ-21D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B22	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	1.6	2.5	0.70	J
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	91	2.5	0.70	
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-03	Date Collected	: 03/09/20 13:45
Client ID	: GZ-21D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 19:58
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B22	Instrument ID	: QUIMBY
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-04D	Date Collected	: 03/09/20 14:50
Client ID	: GZ-23D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 20:29
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B23	Instrument ID	: QUIMBY
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
75-09-2	Methylene chloride	ND	50	14.	U
75-34-3	1,1-Dichloroethane	ND	50	14.	U
67-66-3	Chloroform	ND	50	14.	U
56-23-5	Carbon tetrachloride	ND	10	2.7	U
78-87-5	1,2-Dichloropropane	ND	20	2.7	U
124-48-1	Dibromochloromethane	ND	10	3.0	U
79-00-5	1,1,2-Trichloroethane	ND	30	10.	U
127-18-4	Tetrachloroethene	1700	10	3.6	
108-90-7	Chlorobenzene	ND	50	14.	U
75-69-4	Trichlorofluoromethane	ND	50	14.	U
107-06-2	1,2-Dichloroethane	4.9	10	2.6	J
71-55-6	1,1,1-Trichloroethane	ND	50	14.	U
75-27-4	Bromodichloromethane	ND	10	3.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.3	U
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.9	U
75-25-2	Bromoform	ND	40	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.3	U
71-43-2	Benzene	ND	10	3.2	U
108-88-3	Toluene	ND	50	14.	U
100-41-4	Ethylbenzene	ND	50	14.	U
74-87-3	Chloromethane	ND	50	14.	U
74-83-9	Bromomethane	ND	50	14.	U
75-01-4	Vinyl chloride	30	20	1.4	
75-00-3	Chloroethane	ND	50	14.	U
75-35-4	1,1-Dichloroethene	ND	10	3.4	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-04D	Date Collected	: 03/09/20 14:50
Client ID	: GZ-23D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 20:29
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B23	Instrument ID	: QUIMBY
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	16	50	14.	J
79-01-6	Trichloroethene	560	10	3.5	
95-50-1	1,2-Dichlorobenzene	ND	50	14.	U
541-73-1	1,3-Dichlorobenzene	ND	50	14.	U
106-46-7	1,4-Dichlorobenzene	ND	50	14.	U
1634-04-4	Methyl tert butyl ether	ND	50	14.	U
179601-23-1	p/m-Xylene	ND	50	14.	U
95-47-6	o-Xylene	ND	50	14.	U
156-59-2	cis-1,2-Dichloroethene	160	50	14.	
100-42-5	Styrene	ND	50	14.	U
75-71-8	Dichlorodifluoromethane	ND	100	20.	U
67-64-1	Acetone	ND	100	29.	U
75-15-0	Carbon disulfide	ND	100	20.	U
78-93-3	2-Butanone	ND	100	39.	U
108-10-1	4-Methyl-2-pentanone	ND	100	20.	U
591-78-6	2-Hexanone	ND	100	20.	U
74-97-5	Bromochloromethane	ND	50	14.	U
106-93-4	1,2-Dibromoethane	ND	40	13.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	14.	U
98-82-8	Isopropylbenzene	ND	50	14.	U
87-61-6	1,2,3-Trichlorobenzene	ND	50	14.	U
120-82-1	1,2,4-Trichlorobenzene	ND	50	14.	U
79-20-9	Methyl Acetate	ND	40	4.7	U
110-82-7	Cyclohexane	ND	200	5.4	U
123-91-1	1,4-Dioxane	ND	5000	1200	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-04D	Date Collected	: 03/09/20 14:50
Client ID	: GZ-23D	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/13/20 20:29
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: MM
Lab File ID	: VQ200313B23	Instrument ID	: QUIMBY
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	50	14.	U
108-87-2	Methyl cyclohexane	8.5	200	7.9	J

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-05D	Date Collected	: 03/09/20 15:40
Client ID	: OSMW-3	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 19:40
Sample Matrix	: WATER	Dilution Factor	: 25
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A18	Instrument ID	: VOA108
Sample Amount	: 0.4 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
75-09-2	Methylene chloride	ND	62	18.	U
75-34-3	1,1-Dichloroethane	ND	62	18.	U
67-66-3	Chloroform	ND	62	18.	U
56-23-5	Carbon tetrachloride	ND	12	3.4	U
78-87-5	1,2-Dichloropropane	ND	25	3.4	U
124-48-1	Dibromochloromethane	ND	12	3.7	U
79-00-5	1,1,2-Trichloroethane	ND	38	12.	U
127-18-4	Tetrachloroethene	2300	12	4.5	
108-90-7	Chlorobenzene	ND	62	18.	U
75-69-4	Trichlorofluoromethane	ND	62	18.	U
107-06-2	1,2-Dichloroethane	ND	12	3.3	U
71-55-6	1,1,1-Trichloroethane	ND	62	18.	U
75-27-4	Bromodichloromethane	ND	12	4.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	12	4.1	U
10061-01-5	cis-1,3-Dichloropropene	ND	12	3.6	U
75-25-2	Bromoform	ND	50	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	4.2	U
71-43-2	Benzene	ND	12	4.0	U
108-88-3	Toluene	ND	62	18.	U
100-41-4	Ethylbenzene	ND	62	18.	U
74-87-3	Chloromethane	ND	62	18.	U
74-83-9	Bromomethane	ND	62	18.	U
75-01-4	Vinyl chloride	ND	25	1.8	U
75-00-3	Chloroethane	ND	62	18.	U
75-35-4	1,1-Dichloroethene	ND	12	4.2	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-05D	Date Collected	: 03/09/20 15:40
Client ID	: OSMW-3	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 19:40
Sample Matrix	: WATER	Dilution Factor	: 25
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A18	Instrument ID	: VOA108
Sample Amount	: 0.4 ml	GC Column	: RTX-502.2
Level	: LOW	% Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	62	18.	U
79-01-6	Trichloroethene	340	12	4.4	
95-50-1	1,2-Dichlorobenzene	ND	62	18.	U
541-73-1	1,3-Dichlorobenzene	ND	62	18.	U
106-46-7	1,4-Dichlorobenzene	ND	62	18.	U
1634-04-4	Methyl tert butyl ether	ND	62	18.	U
179601-23-1	p/m-Xylene	ND	62	18.	U
95-47-6	o-Xylene	ND	62	18.	U
156-59-2	cis-1,2-Dichloroethene	42	62	18.	J <span style="color: red;">JT</span>
100-42-5	Styrene	ND	62	18.	U
75-71-8	Dichlorodifluoromethane	ND	120	25.	U
67-64-1	Acetone	ND	120	36.	U
75-15-0	Carbon disulfide	ND	120	25.	U
78-93-3	2-Butanone	ND	120	48.	U
108-10-1	4-Methyl-2-pentanone	ND	120	25.	U
591-78-6	2-Hexanone	ND	120	25.	U
74-97-5	Bromochloromethane	ND	62	18.	U
106-93-4	1,2-Dibromoethane	ND	50	16.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	62	18.	U
98-82-8	Isopropylbenzene	ND	62	18.	U
87-61-6	1,2,3-Trichlorobenzene	ND	62	18.	U
120-82-1	1,2,4-Trichlorobenzene	ND	62	18.	U
79-20-9	Methyl Acetate	ND	50	5.8	U
110-82-7	Cyclohexane	ND	250	6.8	U
123-91-1	1,4-Dioxane	ND	6200	1500	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-05D	Date Collected	: 03/09/20 15:40
Client ID	: OSMW-3	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 19:40
Sample Matrix	: WATER	Dilution Factor	: 25
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A18	Instrument ID	: VOA108
Sample Amount	: 0.4 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	62	18.	U
108-87-2	Methyl cyclohexane	ND	250	9.9	U

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-06D	Date Collected	: 03/09/20 16:40
Client ID	: B6-OWD	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:02
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A19	Instrument ID	: VOA108
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
75-09-2	Methylene chloride	ND	50	14.	U
75-34-3	1,1-Dichloroethane	ND	50	14.	U
67-66-3	Chloroform	ND	50	14.	U
56-23-5	Carbon tetrachloride	ND	10	2.7	U
78-87-5	1,2-Dichloropropane	ND	20	2.7	U
124-48-1	Dibromochloromethane	ND	10	3.0	U
79-00-5	1,1,2-Trichloroethane	ND	30	10.	U
127-18-4	Tetrachloroethene	740	10	3.6	
108-90-7	Chlorobenzene	ND	50	14.	U
75-69-4	Trichlorofluoromethane	ND	50	14.	U
107-06-2	1,2-Dichloroethane	8.9	10	2.6	J
71-55-6	1,1,1-Trichloroethane	ND	50	14.	U
75-27-4	Bromodichloromethane	ND	10	3.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.3	U
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.9	U
75-25-2	Bromoform	ND	40	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.3	U
71-43-2	Benzene	5.8	10	3.2	J
108-88-3	Toluene	ND	50	14.	U
100-41-4	Ethylbenzene	ND	50	14.	U
74-87-3	Chloromethane	ND	50	14.	U
74-83-9	Bromomethane	ND	50	14.	U
75-01-4	Vinyl chloride	ND	20	1.4	U
75-00-3	Chloroethane	ND	50	14.	U
75-35-4	1,1-Dichloroethene	ND	10	3.4	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-06D	Date Collected	: 03/09/20 16:40
Client ID	: B6-OWD	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:02
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A19	Instrument ID	: VOA108
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	26	50	14.	J
79-01-6	Trichloroethene	2200	10	3.5	
95-50-1	1,2-Dichlorobenzene	ND	50	14.	U
541-73-1	1,3-Dichlorobenzene	ND	50	14.	U
106-46-7	1,4-Dichlorobenzene	ND	50	14.	U
1634-04-4	Methyl tert butyl ether	ND	50	14.	U
179601-23-1	p/m-Xylene	ND	50	14.	U
95-47-6	o-Xylene	ND	50	14.	U
156-59-2	cis-1,2-Dichloroethene	530	50	14.	
100-42-5	Styrene	ND	50	14.	U
75-71-8	Dichlorodifluoromethane	ND	100	20.	U
67-64-1	Acetone	ND	100	29.	U
75-15-0	Carbon disulfide	ND	100	20.	U
78-93-3	2-Butanone	ND	100	39.	U
108-10-1	4-Methyl-2-pentanone	ND	100	20.	U
591-78-6	2-Hexanone	ND	100	20.	U
74-97-5	Bromochloromethane	ND	50	14.	U
106-93-4	1,2-Dibromoethane	ND	40	13.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	14.	U
98-82-8	Isopropylbenzene	ND	50	14.	U
87-61-6	1,2,3-Trichlorobenzene	ND	50	14.	U
120-82-1	1,2,4-Trichlorobenzene	ND	50	14.	U
79-20-9	Methyl Acetate	ND	40	4.7	U
110-82-7	Cyclohexane	ND	200	5.4	U
123-91-1	1,4-Dioxane	ND	5000	1200	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-06D	Date Collected	: 03/09/20 16:40
Client ID	: B6-OWD	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:02
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A19	Instrument ID	: VOA108
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	50	14.	U
108-87-2	Methyl cyclohexane	ND	200	7.9	U

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-07	Date Collected	: 03/09/20 00:00
Client ID	: DUP03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:24
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A20	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	20	0.50	0.13	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	1.9	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	7.1	1.0	0.07	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-07	Date Collected	: 03/09/20 00:00
Client ID	: DUP03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:24
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A20	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	77	2.5	0.70	
79-01-6	Trichloroethene	0.32	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	1.3	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	4.3	2.5	0.70	
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	0.76	10	0.27	J
123-91-1	1,4-Dioxane	ND	250	61.	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-07	Date Collected	: 03/09/20 00:00
Client ID	: DUP03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 20:24
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A20	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U

**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-08	Date Collected	: 03/09/20 00:00
Client ID	: TB03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 14:55
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A05	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	% Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-08	Date Collected	: 03/09/20 00:00
Client ID	: TB03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 14:55
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A05	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			
		Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	4.7	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



**Results Summary**  
**Form 1**  
**Volatile Organics by GC/MS**

Client	: Sterling Environmental Eng	Lab Number	: L2010545
Project Name	: 441/442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L2010545-08	Date Collected	: 03/09/20 00:00
Client ID	: TB03092020	Date Received	: 03/10/20
Sample Location	: MAMARONECK, NY	Date Analyzed	: 03/15/20 14:55
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: AD
Lab File ID	: V08200315A05	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U