



August 17, 2016

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

Subject: Former M. Argueso and Company, Inc.  
441 & 442 Waverly Avenue, Mamaroneck, NY  
Site #C360108  
1st Biannual 2016 Groundwater Monitoring Results  
STERLING File #28012 (Task 995)

Dear Mr. Lanners,

The first 2016 biannual groundwater sampling event for the above-referenced site was conducted by Sterling Environmental Engineering, P.C. (STERLING) on May 12, 2016. This sampling 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.

### **Background**

In June 2013, Hydrogen Release Compound (HRC) was injected into the subsurface surrounding wells GZ-22D and GZ-23D. Quarterly monitoring was conducted for one year after the injections were completed. Biannual monitoring was approved by the NYSDEC starting in 2015.

This report presents the first biannual groundwater monitoring results for 2016.

### **Groundwater Monitoring**

Four (4) onsite and two (2) offsite monitoring wells were sampled via peristaltic pump and analyzed for Part 375 Volatile Organic Compounds (VOCs). Figure 1, showing the well locations, is attached. The Daily Field Report and Sampling Data Sheets are also attached.

Results of the laboratory analyses are contained in Table 1, attached. Laboratory results and the Data Usability Summary Report (DUSR) are also attached. The results are compared to Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Water Quality Standards and Guidance Values.

Since the injections, levels of Total VOCs have decreased in monitoring wells B6-OWD, GZ-21D, GZ-22D, GZ-23D, and OSMW-4, as shown on the chart in Figure 1.

*“Serving our clients and the environment since 1993”*

The following discussion details the trends in each well:

#### **B6-OWD**

Initially, levels of several VOCs increased in this well. During the four most recent events, levels of all VOCs in this well have decreased to below standards.

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

Initially, levels of several VOCs increased in this well. During the most recent event, levels of all VOCs in this well have decreased to below standards with the exception of 1,2-Dichloroethane.

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

PCE and TCE levels in this well have decreased to below standards for the three most recent events. All other VOCs have decreased to levels below standards with the exception of 1,2-Dichloroethane, Benzene, Vinyl Chloride, trans-1,2-Dichloroethene, Methyl tert butyl ether (MTBE), and cis-1,2-Dichloroethene. These VOCs have remained relatively level for the past three events.

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

Both PCE and TCE concentrations decreased significantly through 2014. TCE concentrations have gradually increased since the end of 2014 and PCE concentrations have increased during the most recent event. Vinyl chloride, a daughter compound of PCE and TCE, increased following the injections. Vinyl Chloride decreased since 2014, however has increased in the most recent event. Both cis-1,2-Dichloroethene and trans-1,2-Dichloroethene increased following the injections, and remain above standards. Benzene exceeded the groundwater standard for the most recent event and has sporadically exceeded the groundwater standard in the past.

#### **Offsite Wells**

Offsite wells OSMW-3 and OSMW-4 were installed upgradient of the site wells to determine upgradient groundwater conditions. These well installations are upgradient of the treatment zone and may not reflect the same decreasing levels of VOCs observed onsite.

#### **OSMW-3**

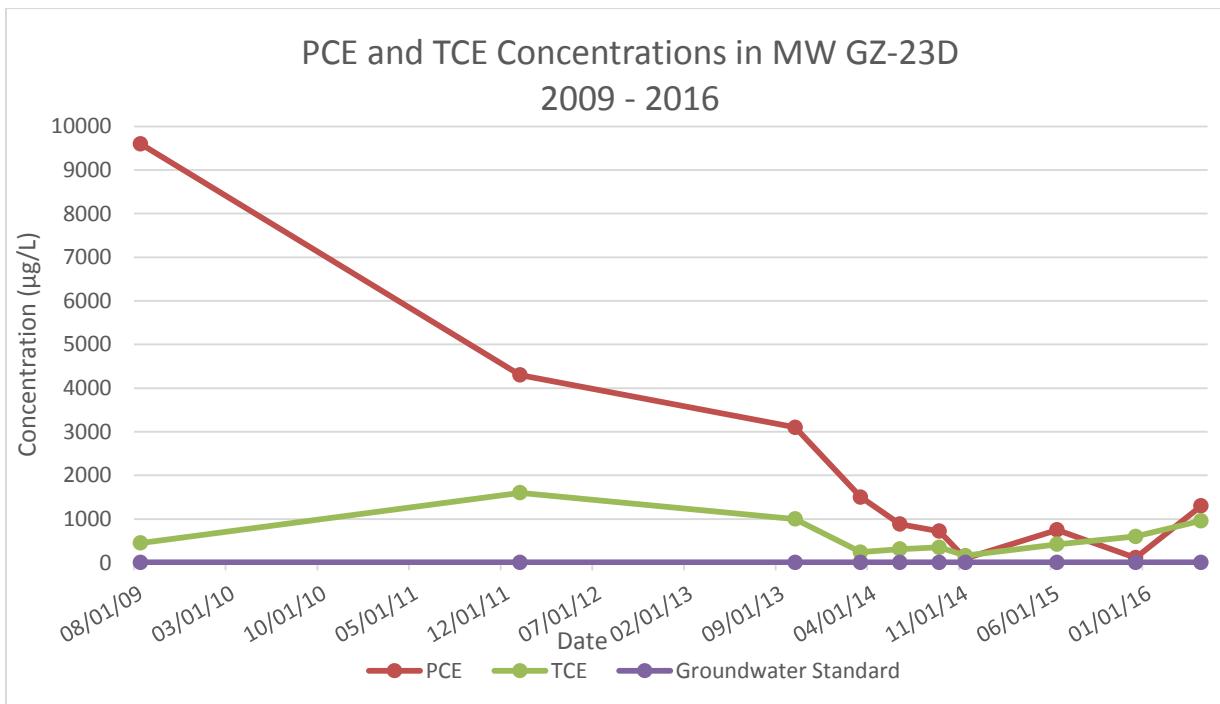
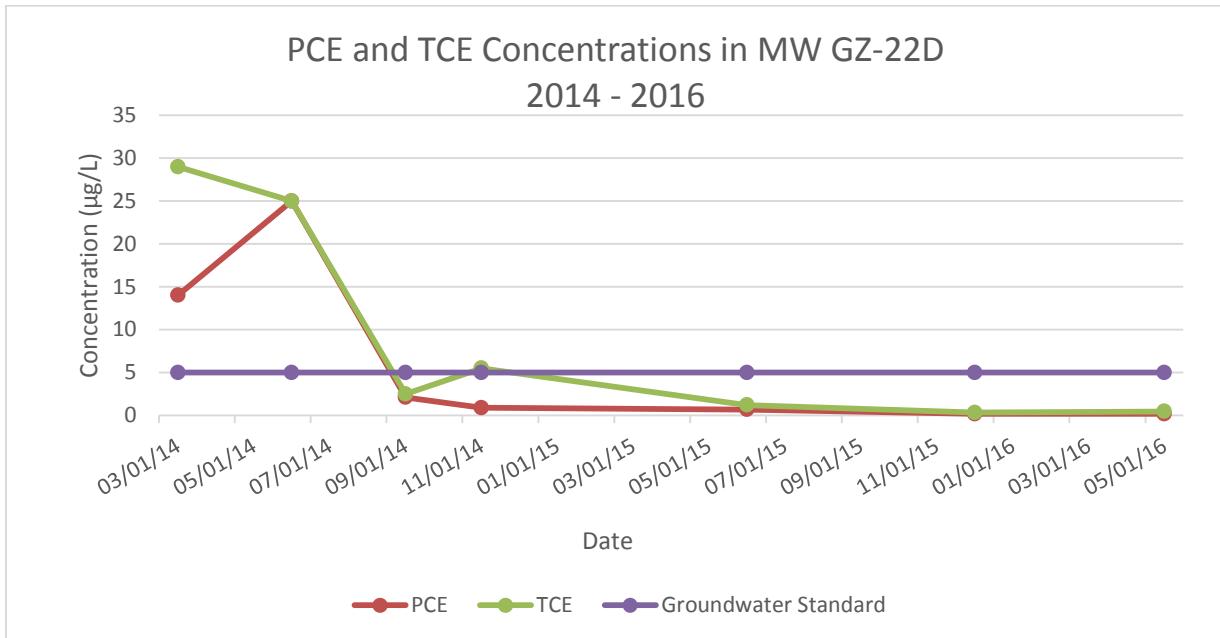
Both PCE and TCE levels increased following the injections however both compounds have been decreasing for the three most recent events. The levels of PCE and TCE remain above standards. Cis-1,2-Dichloroethene also increased, and has been decreasing in the four most recent events. 1,2-Dichloroethane and trans-1,2-Dichloroethene are above standards for this event.

#### **OSMW-4**

All VOCs were below standards for both events in 2015. All VOCs were below standards during this event with the exception of Benzene with a reported concentration of 1.2 µL, which is just above the 1.0 µg/L groundwater standard.

The charts below depict the levels of PCE and TCE in wells GZ-22D and GZ-23D over time.

Initially, wells GZ-22D and GZ-23D contained the highest concentrations of PCE and TCE of the onsite wells and were therefore chosen for treatment.



## Groundwater Flow

Figure 1 depicts groundwater flow in a northeasterly direction in the area of the monitoring wells.

## Inspections

In accordance with the SMP, a comprehensive annual site-wide inspection and asphalt and soil cover system inspection were last conducted on December 17, 2015. The 2016 annual site-wide inspection and soil cover system inspection will be conducted during the second biannual 2016 groundwater monitoring event in the latter part of 2016.

## Conclusions and Recommendations

A review of the groundwater monitoring data since the injections occurred indicates an overall decrease in the level of VOCs in all wells except OSMW-3. An increase in TCE and PCE concentrations were reported at GZ-23D, however levels of these compounds remain lower than initial concentrations prior to the injections. Therefore, the remedy continues to achieve remedial goals at this site. STERLING recommends groundwater monitoring continue on a biannual schedule and will conduct the next biannual sampling event in October or November 2016.

If the VOC levels in B6-OWD, GZ-21D, and OSMW-4 remain at or below standards for the next two sampling events, STERLING recommends that sampling of those two wells be discontinued.

Please contact me should you have any questions.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.

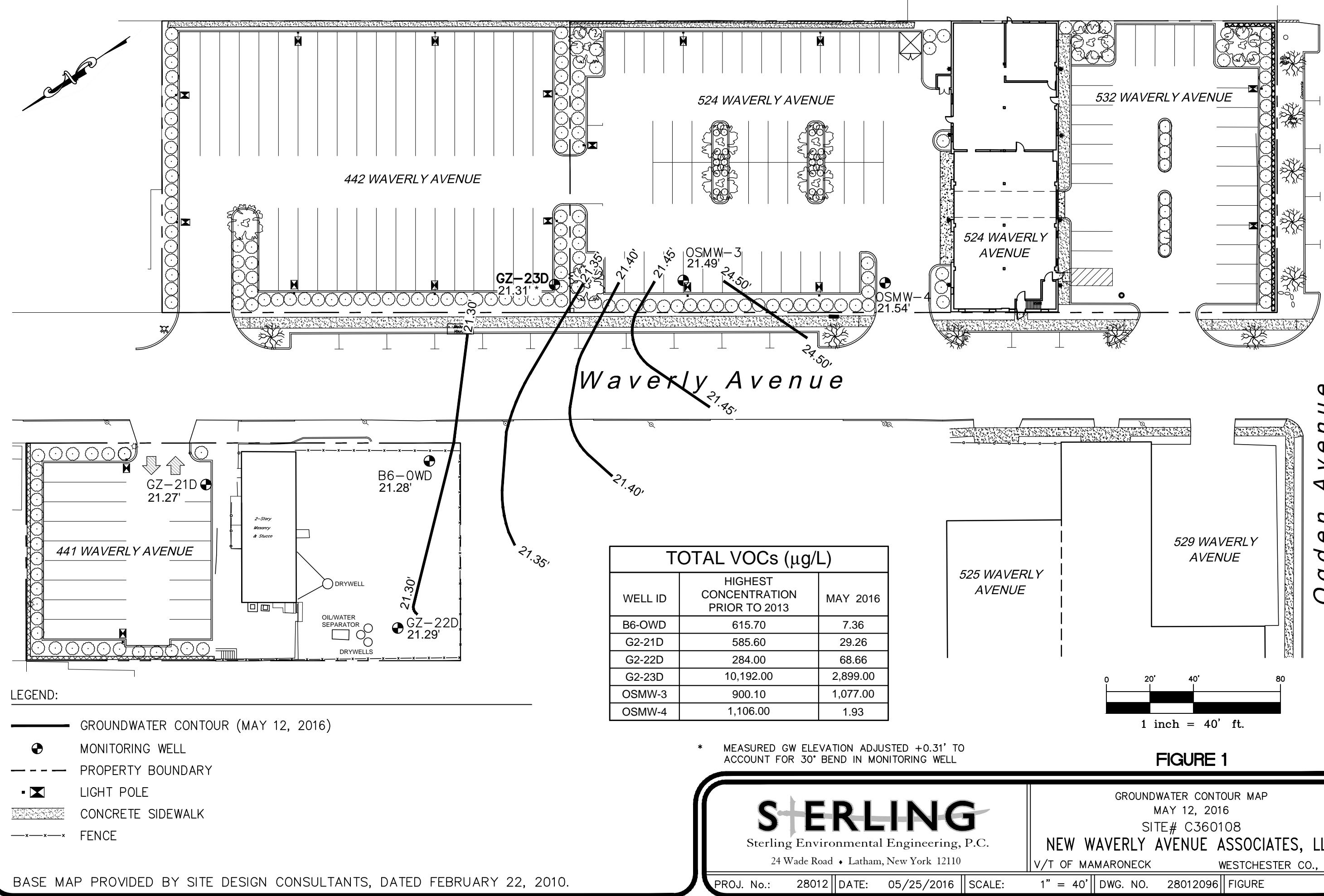


Mark P. Millspaugh, P.E.  
President  
[mark.millspaugh@sterlingenvironmental.com](mailto:mark.millspaugh@sterlingenvironmental.com)

MPM/bc  
Email/First Class Mail  
Attachments

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

**FIGURE**



## **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**  
**Volatile Organic Compounds**  
**Site #C360108**

Location		Water Quality Standard*	441 Waverly Avenue																				DUP-1 [2]	DUP-1 [1]			
Sample ID			GZ-21D										DUP-1 [4]	GZ-22D													
Unit			µg/L											µg/L	µg/L												
Sample Date			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	06/18/14	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	03/24/14	10/15/13		
Parameter	CAS#																										
<i>Volatile Organic Compounds:</i>																											
1,1-Dichloroethane	75-34-3	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.38	<0.70	<0.70	<0.70	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.38	<0.70	<0.70	<0.70	<25	<0.5		
1,1-Dichloroethene	75-35-4	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.29	<0.14	<0.14	<0.14	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.29	<0.14	<0.14	<0.14	<25	<0.5		
1,2,3-Trichlorobenzene	87-61-6	5.0	<5.0	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	NA	<5.0	NA	NA	NA	NA	NA	NA	<0.70	<0.70	NA	NA	NA	NA		
1,2,4-Trichlorobenzene	120-82-1	5.0	<5.0	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	NA	<5.0	NA	NA	NA	NA	NA	NA	<0.70	<0.70	NA	NA	NA	NA		
1,2-Dichloroethane	107-06-2	0.6	<b>170</b> D	<b>5.3</b>	<5.0	<b>190</b> D	<b>4.1</b>	0.4 J	<b>54</b>	<b>55</b>	<b>28</b>	<b>190</b>	<b>22</b>	<b>17</b>	<b>16</b>	<b>24</b> J	<25	<b>1.3</b>	<b>0.6</b> J	<b>5.4</b>	<b>14</b>	<b>15</b>	<b>22</b> J	<b>16</b>			
cis-1,2-Dichloroethene	156-59-2	5.0	<b>270</b> D	<b>10</b>	<b>7.6</b>	<b>310</b> D	<b>290</b>	<b>5.6</b>	<0.81	<b>100</b>	<0.70	0.83 J	<b>350</b>	<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>	<b>100</b>	<b>12</b>		
trans-1,2-Dichloroethene	156-60-5	5.0	<b>6.6</b>	<5.0	<5.0	3.8	<5.0	<1.0	<0.9	0.99 J	0.86 J	<0.70	<4.0	<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>	<25	4.4 J		
2-Butanone (MEK)	78-93-3	50 GV	<5.0	<5.0	<5.0	<10	<50	<10	<1.3	2.5 J	<1.9	<1.9	<40	<5.0	<5.0	<5.0	<250	<b>1400</b>	<b>190</b>	12	<1.9	<1.9	<1.9	<250	<5.0		
Acetone	67-64-1	50 GV	<50.0	<5.0	<5.0	<10	<50	<10	<3.0	20	4.4 J	<1.5	<40	<50.0	<5.0	<5.0	<250	<b>370</b> J	<b>270</b>	<b>51</b>	2.4 J	2.0 J	<1.5	<250	<5.0		
Benzene	71-43-2	1.0	<b>61</b>	<5.0	<5.0	<b>8.2</b>	<5.0	<1.0	<0.41	<b>1.2</b>	1.0	<0.16	<4.0	<b>2.6</b> J	<b>1.3</b> J	<b>1.2</b> J	<25	<25	<b>1.6</b>	<b>1.7</b>	<b>2.2</b>	<b>1.9</b>	<b>2.3</b>	<25	<b>1.2</b> J		
n-Butylbenzene	104-51-8	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.64	NA	NA	NA	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.64	NA	NA	NA	<25	<5.0		
sec-Butylbenzene	135-98-8	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.75	NA	NA	NA	<4.0	1.2 J	<5.0	<5.0	<25	<25	<1.0	<0.75	NA	NA	NA	<25	<5.0		
tert-Butylbenzene	98-06-6	5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.81	NA	NA	NA	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.81	NA	NA	NA	<25	<5.0			
Carbon disulfide	75-15-0	---	<5.0	NA	NA	NA	NA	NA	4.2 J	2.0 J	<1.0	NA	<5.0	NA	NA	<25	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	NA	NA		
Ethylbenzene	100-41-4	5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.74	<0.70	<0.70	<0.70	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.74	<0.70	<0.70	<0.70	<25	<5.0			
Hexachlorobutadiene	87-68-3	0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	NA	NA	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Isopropylbenzene	98-82-8	5.0	<5.0	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	NA	1.5 J	NA	NA	<25	NA	NA	NA	<0.70	<0.70	<0.70	NA	NA			
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	<5.0	<5.0	0.27 J	<5.0	<1.0	<0.16	<0.70	<0.70	<0.70	<4.0	<b>14</b>	<b>31</b>	<b>42</b>	<b>34</b>	<b>25</b>	<b>33</b>	<b>25</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>36</b>	<b>43</b>			
n-Propylbenzene	103-65-1	5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.64	NA	NA	NA	<4.0	4.4 J	<5.0	<5.0	<25	<25	<1.0	<0.69	NA	NA	NA	<25	<5.0			
Tetrachloroethene	127-18-4	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	<0.18	<0.18	2.9 J	<b>120</b>	<b>97</b>	<b>62</b>	<b>14</b> J	<25	2.1	0.88 J	0.69	<0.18	<0.18	<b>21</b> J	<b>60</b>		
Trichloroethene	79-01-6	5.0	<b>33</b>	0.58 J	<5.0	<b>7.8</b>	<b>15</b>	0.82 J	2.3	<0.18	<0.18	<0.18	<b>13</b>	<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	<b>34</b>	<b>88</b>		
Toluene	108-88-3	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<0.51	<0.70	<0.70	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.51	<0.70	<0.70	<0.70	<25	<5.0			
Vinyl chloride	75-01-4	2.0	<b>4</b> J	<5.0	<5.0	<b>4.3</b>	<5.0	<1.0	<0.90	1.7	<0.07	0.43 J	<4.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<0.9	1.8	<b>6.5</b>	<b>5.7</b>	<25</td			

**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**  
**Volatile Organic Compounds**  
**Site #C360108**

Location		442 Waverly Avenue														441 Waverly Avenue										
Well ID		Water Quality Standard*	GZ-23D												B6-OWD								DUP-1 [8]			
Unit			µg/L	µg/L												µg/L										
Sample Date			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		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	12/16/15		
Parameter	Volatile Organic Compounds	CAS#																								
1,1-Dichloroethane	75-34-3	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<7.6	<7.0	<14	<7.0	<5.0	<5.0	<1.0	<4.0	<4.0	<3.0	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70		
1,1-Dichloroethene	75-35-4	5.0	<b>5.5</b>	1.6 J	<100	1.7	<20	<20	<5.8	1.9 J	<2.8	<1.4	<5.0	<5.0	<1.0	<4.0	<4.0	<2.3	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14		
1,2,3-Trichlorobenzene	87-61-6	5.0	<5.0	NA	NA	NA	NA	NA	<7.0	<14	<7.0	NA	NA	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70		
1,2,4-Trichlorobenzene	120-82-1	5.0	<5.0	NA	NA	NA	NA	NA	<7.0	<14	<7.0	NA	NA	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70		
1,2-Dichloroethane	107-06-2	0.6	<b>13</b>	<b>9</b>	<100	<b>7.8</b>	<b>6.6</b> J	<b>7.6</b> J	<4.2	<b>3.6</b> J	<b>4.3</b> J	<b>9.7</b>	<5.0	<b>1.9</b> J	<b>2.8</b>	<b>8.0</b>	<b>9.1</b>	<1.7	0.36 J	<0.13	0.31 J	<0.13				
cis-1,2-Dichloroethene	156-59-2	5.0	<b>10</b>	<b>780</b> D	<b>380</b>	<b>2200</b> D	<b>930</b>	<b>1100</b>	<b>1100</b>	<b>780</b>	<b>1000</b> j	<b>400</b>	<b>390</b> D	1.5 J	<b>76</b>	<b>180</b> D	<b>330</b>	<b>430</b> D	<6.5	1.3 J	1.1 J	2.4 J	1.2 J			
trans-1,2-Dichloroethene	156-60-5	5.0	<5.0	<b>9.1</b>	<100	<b>41</b>	<20	<20	<b>18</b> J	<b>22</b> J	<b>37</b> J	<b>32</b>	<b>150</b>	<5.0	<b>6.8</b>	<b>7.2</b>	<b>8.4</b>	<b>14</b>	<7.2	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	
2-Butanone (MEK)	78-93-3	50 GV	<5.0	<5.0	<b>260</b>	46	<b>190</b> J	<b>770</b>	37 J	20 J	<39	<19	<5.0	<5.0	<10	<40	<40	<11	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	
Acetone	67-64-1	50 GV	<50.0	<b>200</b>	<100	9.8 J	<b>81</b> J	<b>480</b>	<60	19 J	<29	<15	<50.0	<5.0	<5.0	<10	<40	<40	<24	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	
Benzene	71-43-2	1.0	<b>11</b>	4 J	<100	<b>2.7</b>	<20	<20	<8.2	3.2 J	<3.2	<b>2.8</b> J	<5.0	0.51 J	<5.0	<1.0	<4.0	<4.0	<3.3	0.38 J	0.28 J	0.28 J	0.29 J	0.29 J		
n-Butylbenzene	104-51-8	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<13	NA	NA	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<5.1	NA	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	135-98-8	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<15	NA	NA	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<6.0	NA	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	98-06-6	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<16	NA	NA	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<6.5	NA	NA	NA	NA	NA	NA	NA	
Carbon disulfide	75-15-0	---	<5.0	NA	NA	NA	NA	NA	<10	<20	<10	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	100-41-4	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<15	<7.0	<14	<7.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<5.9	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	
Hexachlorobutadiene	87-68-3	0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	98-82-8	5.0	<5.0	NA	NA	NA	NA	NA	<7.0	<7.0	<14	<7.0	NA	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	2.1 J	1.6 J	<100	<1.0	<20	<20	<3.2	<7.0	<14	<7.0	<5.0	<5.0	<1.0	<4.0	<4.0	<1.3	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	
n-Propylbenzene	103-65-1	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<14	NA	NA	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<5.5	NA	NA	NA	NA	NA	NA	NA	
Tetrachloroethylene	127-18-4	5.0	<b>9700</b> D	<b>4300</b> D	<b>3100</b>	<b>1500</b> D	<b>880</b>	<b>720</b>	<b>94</b>	<b>750</b>	<b>110</b> j	<b>1300</b>	<b>23</b>	<b>6.2</b>	<b>18</b>	<b>59</b>	<b>47</b>	<b>110</b>	<2.9	2.4	2.1	2.4	2.2			
Trichloroethylene	79-01-6	5.0	<b>450</b> DJ	<b>1600</b> D	<b>1000</b>	<b>240</b> D	<b>310</b>	<b>350</b>	<b>160</b>	<b>420</b>	<b>600</b> j	<b>960</b>	<b>43</b>	2.1 J	<b>41</b>	<b>170</b> D	<b>180</b>	<b>330</b>	<3.7	1.3	1.4	1.7	1.4			
Toluene	108-88-3	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<10	<7.0	<14	<7.0	<5.0	<5.0	<1.0	<4.0	<4.0	<4.1	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	
Vinyl chloride	75-01-4	2.0	<5.0	1.2 J	<b>28</b> J	<b>200</b> D	<b>250</b>	<b>390</b>	<b>320</b>	<b>230</b> j	<1.4	<b>200</b>	<5.0	<5.0	<1.0	<4.0	<4.0	<7.2	<0.07	0.27 J	<0.07					

**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 the laboratory detection limit shown.  
NA Not Analyzed.  
--- No standard or not applicable.

[1], [2] DUP-1 samples collected from monitoring well location GZ-22D.

[3] DUP-1 samples collected from off

**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**  
**Volatile Organic Compounds**  
**Site #C360108**

Location		Water Quality Standard*	Offsite Monitoring Wells																						
Well ID			OSMW-3								DUP-1 [6]	OSMW-4								DUP-1 [9]	DUP-1 [5]	DUP-1 [3]	DUP-1 [7]		
Unit			µg/L									µg/L													
Sample Date			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	11/05/14	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	05/12/16	09/24/14	01/10/12	06/24/15
Parameter	CAS#																								
<b>Volatile Organic Compounds</b>																									
1,1-Dichloroethane	75-34-3	5.0	<5.0	<80	<1.0	<20	<20	<19	<14	<28	<3.5	<0.38	<5.0	<5.0	<25	<25	<1.0	<0.38	<0.70	<0.70	<0.70	<1.0	<5.0	<0.70	
1,1-Dichloroethene	75-35-4	5.0	<5.0	<80	<1.0	<20	<20	<15	<2.8	<5.7	<0.71	1.4	<5.0	<5.0	<25	<25	<1.0	<0.29	<0.14	<0.14	<0.14	<1.0	<5.0	<0.14	
1,2,3-Trichlorobenzene	87-61-6	5.0	NA	NA	NA	NA	NA	<14	<28	<3.5	NA	NA	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	NA	NA	<0.70		
1,2,4-Trichlorobenzene	120-82-1	5.0	NA	NA	NA	NA	NA	<14	<28	<3.5	NA	NA	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	NA	NA	<0.70		
1,2-Dichloroethane	107-06-2	0.6	<b>4.4</b> J	<80	<b>4.7</b>	<20	<20	<11	<2.6	<5.3	<b>3.8</b>	<b>3.5</b>	<b>1.1</b> J	<5.0	<25	<25	<1.0	<0.21	<0.13	<0.13	<0.13	<1.0	<b>1.1</b> J	<0.13	
cis-1,2-Dichloroethene	156-59-2	5.0	<b>14</b>	<b>31</b> J	<b>46</b>	<b>100</b>	<b>220</b>	<b>210</b>	<b>180</b>	<b>120</b> j	<b>92</b>	<b>210</b> D	<b>29</b>	3.8 J	<25	<25	<b>6.2</b>	<b>6.0</b>	1.2 J	<0.70	<0.70	<b>5.2</b>	<b>29</b>	1.2 J	
trans-1,2-Dichloroethene	156-60-5	5.0	1.7 J	<80	3.7	<20	<b>28</b>	<45	<b>25</b> J	<28	<b>21</b>	<b>26</b>	<b>6.9</b>	1 J	<25	<25	<1.0	<0.9	<0.70	<0.70	<0.70	<1.0	<b>7.2</b>	<0.70	
2-Butanone (MEK)	78-93-3	50 GV	<5.0	<5.0	<10	<200	<200	<66	46 J	<78	<9.7	<1.3	<5.0	<5.0	<250	<250	<1.0	<1.3	<1.9	<1.9	<1.9	<10	<5.0	<1.9	
Acetone	67-64-1	50 GV	<5.0	<80	<10	<200	<200	<150	39 J	<58	<7.3	<3.0	<5.0	<5.0	<250	<250	3.2 J	<3.0	<1.5	<1.5	<1.5	3.0 J	<5.0	<1.5	
Benzene	71-43-2	1.0	<5.0	<80	1	<20	<20	<21	<3.2	<6.4	<0.80	<b>1.6</b>	<b>45</b>	<5.0	<25	<25	<b>2.8</b>	0.86 J	<0.16	0.38 J j	<b>1.2</b>	<b>1.2</b>	<b>2.9</b>	<b>47</b>	<0.16
n-Butylbenzene	104-51-8	5.0	<5.0	<80	<1.0	<20	<20	<32	NA	NA	<0.64	<5.0	<5.0	<25	<25	<1.0	<0.64	NA	NA	NA	NA	<1.0	<5.0	NA	
sec-Butylbenzene	135-98-8	5.0	<5.0	<80	<1.0	<20	<20	<38	NA	NA	<0.75	1.5 J	<5.0	<25	<25	<1.0	<0.75	NA	NA	NA	NA	<1.0	1.5 J	NA	
tert-Butylbenzene	98-06-6	5.0	<5.0	<80	<1.0	<20	<20	<41	NA	NA	<0.81	<5.0	<5.0	<25	<25	<1.0	<0.81	NA	NA	NA	NA	<1.0	<5.0	NA	
Carbon disulfide	75-15-0	---	NA	NA	NA	NA	NA	<20	<40	<5.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	
Ethylbenzene	100-41-4	5.0	<5.0	<80	<1.0	<20	<20	<37	<14	<28	<3.5	<0.74	<5.0	<5.0	<25	<25	<1.0	<0.74	<0.70	<0.70	<0.70	<1.0	<5.0	<0.70	
Hexachlorobutadiene	87-68-3	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Isopropylbenzene	98-82-8	5.0	NA	NA	NA	NA	NA	<14	<28	<3.5	<14	NA	NA	NA	NA	NA	<0.70	<0.70	<0.70	<0.70	NA	NA	<0.70		
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	<5.0	<80	0.4 J	<20	<20	<8.0	<14	<28	<3.5	0.48 J	0.78 J	<5.0	<25	<25	0.57 J	0.59 J	<0.70	<0.70	<0.70	0.63 J	<5.0	<0.70	
n-Propylbenzene	103-65-1	5.0	<5.0	<80	<1.0	<20	<20	<35	NA	NA	<0.69	1.6 J	<5.0	<25	<25	<1.0	<0.69	NA	NA	NA	NA	<1.0	1.7 J	NA	
Tetrachloroethene	127-18-4	5.0	<b>760</b> D	<b>1900</b>	<b>2400</b> D	<b>1300</b>	<b>2600</b> D	<b>3400</b>	<b>1500</b>	<b>1200</b> j	<b>670</b>	<b>2900</b> D	<b>790</b> D	<b>11</b>	<25	<25	3.4	3.2	0.44 J	<0.18	0.2 J,j	0.19 J,j	3.4	<b>730</b> D	0.48 J
Trichloroethene	79-01-6	5.0	<b>120</b>	<b>280</b>	<b>330</b> D	<b>440</b>	<b>1000</b>	<b>610</b>	<b>480</b> j	<b>290</b>	<b>900</b> D	<b>230</b> D	<b>15</b>	<25	<25	<b>6.0</b>	4.5	1.0	0.56	0.53	0.58	<b>5.5</b>	<b>220</b> D	1.1	
Toluene	108-88-3	5.0	<5.0	<80	<1.0	<20	<20	<26	<14	<28	<3.5	<0.51	<5.0	<5.0	<25	<25	<1.0	<0.51	<0.70	<0.70	<0.70	<1.0	0.67 J	<0.70	
Vinyl chloride	75-01-4	2.0	<5.0	<80	<1.0	<20	<20	<45	<1.4 j	<2.8	0.44 J	<0.9	<5.0	<5.0	<25	<25	<1.0	<0.9	<0.07 j	<0.07	<0.07	<1.0	<5.0	<0.07 j	

**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 the laboratory detection limit shown.
- NA Not Analyzed.
- No standard or not applicable.
- [1], [2] DUP-1 samples collected from monitoring well location GZ-22D.
- [3] DUP-1 samples collected from offsite monitoring well location OSMW-4.
- [4] DUP-1 samples collected from monitoring well location GZ-21D.
- [5] DUP-1 samples collected from monitoring well location OSMW-4.
- [6] DUP-1 samples collected from monitoring well location OSMW-3
- [7] DUP-1 samples collected from monitoring well location OSMW-4.
- [8] DUP-1 samples collected from monitoring well location OSMW-

## **DAILY FIELD REPORT**

**DAILY FIELD REPORT**

<b>Project Name:</b>	<u>441/442 Waverly Avenue</u>	<b>Project No.:</b>	<u>28012</u>
<b>Client Name:</b>	<u>New Waverly Avenue Associates, LLC</u>	<b>Date:</b>	<u>May 12, 2016</u>
<b>Location:</b>	<u>441/442 Waverly Avenue, Mamaroneck, NY</u>	<b>Weather:</b>	<u>80°F, Sunny</u>
<b>Inspector:</b> <u>Cody Sargood (CS); Sterling Environmental Engineering, P.C.</u>			

**Work Description, Comments, Discussion, Problems, Instructions:**

Conduct groundwater sampling of offsite monitoring wells OSMW-3 and OSMW-4 and four (4) existing onsite deep monitoring wells GZ-21D, GZ-22D, GZ-23D and B6-OWD.

- 9:15 AM: CS arrives onsite. CS calibrates and sets up equipment at OSMW-4.
- 10:00 AM: CS begins low flow sampling procedure at OSMW-4. Water is fairly clear with a slight sulfur odor.
- 10:40 AM: CS samples OSMW-4 using a peristaltic pump. CS also collects the MS/MSD QA/QC samples and the duplicate sample from OSMW-4.
- 11:25 AM: CS begins low flow sampling procedure at B6-OWD. Water is fairly clear with some small black filaments present in water. No odor was observed.
- 11:45 AM: CS samples B6-OWD using a peristaltic pump.
- 12:05 PM: CS begins low flow sampling procedure at GZ-22D. Water is observed to be clear with a slight sulfur odor.
- 12:30 PM: CS samples GZ-22D using a peristaltic pump.
- 12:50 PM: CS begins low flow sampling procedure at GZ-21D. Water is observed to be very clear with no obvious odor.
- 1:10 PM: CS samples GZ-21D using a peristaltic pump.
- 1:40 PM: CS begins low flow sampling procedure at OSMW-3. Water is observed to be clear with a very slight solvent odor.
- 2:05 PM: CS samples OSMW-3 using a peristaltic pump.
- 2:20 PM: CS begins low flow sampling procedure at GZ-23D. Water is observed to be slightly cloudy with a slight solvent odor.
- 2:40 PM: CS samples GZ-23D using a peristaltic pump.
- 2:45 PM: CS re-calibrates sampling equipment.
- 3:00 PM: CS departs site to deliver samples to the Alpha Analytical distribution center in Albany, New York.

**Visitors (Name, Affiliation):** \_\_\_\_\_

**Signature:** 

**PURGING/SAMPLING DATA SHEETS**

## Purging / Sampling Data Sheet

Project: 28012 Site: 442 Waverly Avenue, Mamaroneck, NY  
 Well No.: GZ-23D Date: May 12, 2016  
  
 Well Depth: 46.95 feet Screen Length: 40-45 feet BGS  
 Well Diameter: 2 inches Casing Type: PVC  
  
 Sampling Device: Peristaltic Pump Tubing Type: LDPE  
 Static Water Level: 10.02 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>c</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
2:20	0.150	10.10	0.08	7.8	15.73	2.818	-103.1	1.23	54.89
2:25	0.150	10.12	0.02	7.8	15.64	2.819	-100.1	0.89	45.61
2:30	0.150	10.11	-0.01	7.9	15.65	2.820	-99.9	0.85	59.16
2:35	0.150	10.12	0.01	7.8	15.62	2.817	-102.2	0.79	50.98

**Total:** 0.10

Note: Well has a 30 degree elbow in well. Depth to water and depth to bottom measurements on this form do not factor in the bend in riser. Please refer to the groundwater contour map for true groundwater elevation.

BGS = below ground surface

Sample obtained at 2:40 pm; slightly cloudy, slight solvent odor observed.

## Purging / Sampling Data Sheet

Project: 28012 Site: 441 Waverly Avenue, Mamaroneck, NY  
 Well No.: GZ-21D Date: May 12, 2016  
  
 Well Depth: 44.21 feet Screen Length: 40-50 feet BGS  
 Well Diameter: 2 inch Casing Type: PVC  
  
 Sampling Device: Peristaltic Pump Tubing Type: LDPE  
 Static Water Level: 8.11 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>c</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
12:50	0.115	8.25	0.14	8.1	14.79	1.043	-111.7	5.25	12.05
12:55	0.150	8.27	0.02	8.0	14.89	1.043	-87.5	1.08	5.95
1:00	0.150	8.28	0.01	7.9	14.81	1.038	-73.3	0.69	9.66
1:05	0.150	8.28	0.00	8.0	14.80	1.037	-75.8	0.65	4.02

**Total:** 0.17

BGS = below ground surface

Sample obtained at 1:10 pm; Very clear, no obvious odor observed.

## Purging / Sampling Data Sheet

Project: 28012 Site: 524 Waverly Avenue, Mamaroneck, NY  
 Well No.: OSMW-3 Date: May 12, 2016  
  
 Well Depth: 39.4 feet Screen Length: 29 – 39 feet BGS  
 Well Diameter: 1 inch Casing Type: PVC  
  
 Sampling Device: Perestaltic Pump Tubing Type: LDPE  
 Static Water Level: 9.01 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>c</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1:40	0.150	9.04	0.03	7.9	14.44	0.797	30.1	6.62	15.64
1:45	0.150	9.05	0.01	7.9	14.79	0.794	41.6	1.15	8.194
1:50	0.150	9.06	0.01	8.0	14.82	0.796	43.1	0.89	12.29
2:00	0.150	9.06	0.00	8.1	14.86	0.794	43.3	0.81	5.522

Total: 0.05

BGS = below ground surface

Sample obtained at 2:05 pm; Clear, very slight solvent odor observed.

## Purging / Sampling Data Sheet

Project: 28012 Site: 524 Waverly Avenue, Mamaroneck, NY  
 Well No.: OSMW-4 Date: May 12, 2016  
  
 Well Depth: 35.62 feet Screen Length: 25-35 feet BGS  
 Well Diameter: 1 inch Casing Type: PVC  
  
 Sampling Device: Peristaltic Pump Tubing Type: LDPE  
 Static Water Level: 9.30 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>c</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
10:00	0.125	9.36	0.06	6.5	16.05	1.288	4.2	4.1	100.4
10:05	0.100	9.37	0.01	6.9	16.11	1.303	-47.6	0.66	62.17
10:10	0.115	9.36	-0.01	7.2	16:14	1.324	-66.9	0.59	50.09
10:15	0.115	9.37	0.01	7.3	16:16	1.336	-75.4	0.69	28.08
10:20	0.115	9.36	-0.01	7.5	16:18	1.337	-77.8	0.65	33.82
10:25	0.115	9.36	0.00	7.5	16:19	1.337	-75.8	0.60	28.14

**Total:** 0.06

BGS = below ground surface

Sample obtained at 10:40 am; Fairly clear, slight sulfur odor observed. The duplicate and MS/MSD samples were also collected at this location.

## Purging / Sampling Data Sheet

Project: 28012 Site: 441 Waverly Avenue, Mamaroneck, NY  
 Well No.: B6-OWD Date: May 12, 2016  
  
 Well Depth: 35.3 feet Screen Length: N/A  
 Well Diameter: 2 inch Casing Type: PVC  
  
 Sampling Device: Peristaltic Pump Tubing Type: LDPE  
 Static Water Level: 9.08 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>6</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
11:25	0.150	9.11	0.03	7.9	13.92	1.390	96.6	2.77	45.11
11:30	0.125	9.15	0.04	8.0	13.72	1.389	114.6	1.07	32.09
11:35	0.125	9.16	0.01	7.9	13.78	1.385	120.8	0.88	25.55
11:40	0.125	9.17	0.01	7.9	13.77	1.385	121.2	0.83	24.23

**Total:** 0.09

Sample obtained at 11:45 am; Fairly clear, no odor observed.

## Purging / Sampling Data Sheet

Project: 28012 Site: 441 Waverly Avenue, Mamaroneck, NY  
 Well No.: GZ-22D Date: May 12, 2016  
  
 Well Depth: 45.35 feet Screen Length: 40-45 feet BGS  
 Well Diameter: 2 inch Casing Type: PVC  
  
 Sampling Device: Peristaltic Pump Tubing Type: LDPE  
 Static Water Level: 9.19 feet Measuring Point: Top of PVC  
  
 Sampling Personnel: Cody Sargood, Sterling Environmental Engineering, P.C.

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 0.33ft)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm <sup>c</sup> ) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
12:05	0.150	9.23	0.04	7.5	15.75	0.850	-132.2	3.22	20.32
12:10	0.150	9.26	0.03	7.7	15.97	0.838	-131.4	0.76	15.11
12:15	0.150	9.25	-0.01	7.7	15.99	0.832	-125.3	0.75	10.02
12:20	0.150	9.25	0.00	7.7	16.02	0.830	-119.9	0.73	13.33
12:25	0.150	9.26	0.01	7.8	16.12	0.830	-119.3	0.69	18.86
<b>Total:</b>		0.07							

BGS = below ground surface

Sample obtained at 12:30 pm; Very clear, very slight sulfur odor observed.

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



## ANALYTICAL REPORT

Lab Number:	L1614525
Client:	Sterling Environmental Eng 24 Wade Road Latham, NY 12110
ATTN:	Cody Sargood
Phone:	(518) 456-4900
Project Name:	WAVERLY AVE
Project Number:	28012
Report Date:	05/23/16

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

---

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:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1614525-01	B6-OWD	WATER	NY	05/12/16 11:45	05/12/16
L1614525-02	GZ-21D	WATER	NY	05/12/16 13:10	05/12/16
L1614525-03	GZ-22D	WATER	NY	05/12/16 12:30	05/12/16
L1614525-04	GZ-23D	WATER	NY	05/12/16 14:40	05/12/16
L1614525-05	OSMW-3	WATER	NY	05/12/16 14:05	05/12/16
L1614525-06	OSMW-4	WATER	NY	05/12/16 10:40	05/12/16
L1614525-07	DUPLICATE	WATER	NY	05/12/16 00:00	05/12/16
L1614525-08	TRIP BLANK	WATER	NY	05/12/16 12:00	05/12/16

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

### 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

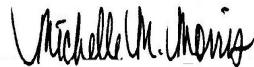
#### Case Narrative (continued)

##### 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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/23/16

# ORGANICS

# VOLATILES



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-01	Date Collected:	05/12/16 11:45
Client ID:	B6-OWD	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/17/16 21:39		
Analyst:	MS		

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	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.4		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	0.31	J	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	0.14	1
Benzene	0.28	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	0.27	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.7		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-01	Date Collected:	05/12/16 11:45
Client ID:	B6-OWD	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	2.4	J	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	41.	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	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-02	Date Collected:	05/12/16 13:10
Client ID:	GZ-21D	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/17/16 22:11		
Analyst:	MS		

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	0.13	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	28		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	0.14	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	0.43	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-02	Date Collected:	05/12/16 13:10
Client ID:	GZ-21D	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.83	J	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	41.	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	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-03	Date Collected:	05/12/16 12:30
Client ID:	GZ-22D	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/17/16 22:43		
Analyst:	MS		

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	0.13	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	15		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	0.14	1
Benzene	2.3		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	5.7		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	28		ug/l	2.5	0.70	1
Trichloroethene	0.46	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-03	Date Collected:	05/12/16 12:30
Client ID:	GZ-22D	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	12		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	5.2		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	0.52	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	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	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	101		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-04	D	Date Collected:	05/12/16 14:40
Client ID:	GZ-23D		Date Received:	05/12/16
Sample Location:	NY		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	1,8260C			
Analytical Date:	05/17/16 23:17			
Analyst:	MS			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.3	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	1300		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	4.3	J	ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.4	10
Benzene	2.8	J	ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	200		ug/l	10	0.70	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
trans-1,2-Dichloroethene	32		ug/l	25	7.0	10
Trichloroethene	960		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-04	D	Date Collected:	05/12/16 14:40
Client ID:	GZ-23D		Date Received:	05/12/16
Sample Location:	NY		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND	ug/l	25	7.0	10	
p/m-Xylene	ND	ug/l	25	7.0	10	
o-Xylene	ND	ug/l	25	7.0	10	
cis-1,2-Dichloroethene	400	ug/l	25	7.0	10	
Styrene	ND	ug/l	25	7.0	10	
Dichlorodifluoromethane	ND	ug/l	50	10.	10	
Acetone	ND	ug/l	50	15.	10	
Carbon disulfide	ND	ug/l	50	10.	10	
2-Butanone	ND	ug/l	50	19.	10	
4-Methyl-2-pentanone	ND	ug/l	50	10.	10	
2-Hexanone	ND	ug/l	50	10.	10	
Bromochloromethane	ND	ug/l	25	7.0	10	
1,2-Dibromoethane	ND	ug/l	20	6.5	10	
1,2-Dibromo-3-chloropropane	ND	ug/l	25	7.0	10	
Isopropylbenzene	ND	ug/l	25	7.0	10	
1,2,3-Trichlorobenzene	ND	ug/l	25	7.0	10	
1,2,4-Trichlorobenzene	ND	ug/l	25	7.0	10	
Methyl Acetate	ND	ug/l	20	2.3	10	
Cyclohexane	ND	ug/l	100	2.7	10	
1,4-Dioxane	ND	ug/l	2500	410	10	
Freon-113	ND	ug/l	25	7.0	10	
Methyl cyclohexane	ND	ug/l	100	4.0	10	

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	98		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-05	D	Date Collected:	05/12/16 14:05
Client ID:	OSMW-3		Date Received:	05/12/16
Sample Location:	NY		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	1,8260C			
Analytical Date:	05/17/16 23:49			
Analyst:	MS			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.66	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	670		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	3.8		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.72	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	0.44	J	ug/l	5.0	0.35	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.71	5
trans-1,2-Dichloroethene	21		ug/l	12	3.5	5
Trichloroethene	290		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-05	D	Date Collected:	05/12/16 14:05
Client ID:	OSMW-3		Date Received:	05/12/16
Sample Location:	NY		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	92		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	3.4	J	ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	200	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-06	Date Collected:	05/12/16 10:40
Client ID:	OSMW-4	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 22:26		
Analyst:	MS		

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	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.20	J	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	0.14	1
Benzene	1.2		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	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.53		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614525-06 Date Collected: 05/12/16 10:40  
 Client ID: OSMW-4 Date Received: 05/12/16  
 Sample Location: NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	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	2.7	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	1.5	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-07	Date Collected:	05/12/16 00:00
Client ID:	DUPLICATE	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 22:49		
Analyst:	MS		

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	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.19	J	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	0.14	1
Benzene	1.2		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	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.58		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-07	Date Collected:	05/12/16 00:00
Client ID:	DUPLICATE	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	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	2.3	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	1.2	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-08	Date Collected:	05/12/16 12:00
Client ID:	TRIP BLANK	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/17/16 17:23		
Analyst:	MS		

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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: WAVERLY AVE

Lab Number: L1614525

Project Number: 28012

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614525-08	Date Collected:	05/12/16 12:00
Client ID:	TRIP BLANK	Date Received:	05/12/16
Sample Location:	NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	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	41.	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	102		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	99		70-130

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/17/16 16:51  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG895053-5					
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	0.13	
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	0.14	
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	0.14	
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:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/17/16 16:51  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG895053-5					
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	41.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/17/16 16:51  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG895053-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG895665-12					
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	0.13	
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	0.14	
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	0.14	
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:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG895665-12					
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	0.84	J	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	41.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG895665-12					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG895053-3 WG895053-4								
Methylene chloride	97		95		70-130	2		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	98		96		70-130	2		20
2-Chloroethylvinyl ether	170	Q	170	Q	70-130	0		20
Carbon tetrachloride	92		89		63-132	3		20
1,2-Dichloropropane	98		95		70-130	3		20
Dibromochloromethane	88		88		63-130	0		20
1,1,2-Trichloroethane	99		99		70-130	0		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	100		98		75-130	2		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	93		93		70-130	0		20
1,1,1-Trichloroethane	95		92		67-130	3		20
Bromodichloromethane	92		90		67-130	2		20
trans-1,3-Dichloropropene	91		85		70-130	7		20
cis-1,3-Dichloropropene	88		87		70-130	1		20
1,1-Dichloropropene	100		95		70-130	5		20
Bromoform	83		83		54-136	0		20
1,1,2,2-Tetrachloroethane	99		98		67-130	1		20
Benzene	100		98		70-130	2		20
Toluene	100		99		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG895053-3 WG895053-4								
Ethylbenzene	100		99		70-130	1		20
Chloromethane	78		83		64-130	6		20
Bromomethane	82		73		39-139	12		20
Vinyl chloride	110		100		55-140	10		20
Chloroethane	94		89		55-138	5		20
1,1-Dichloroethene	91		110		61-145	19		20
trans-1,2-Dichloroethene	97		95		70-130	2		20
Trichloroethene	97		95		70-130	2		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	100		97		70-130	3		20
1,4-Dichlorobenzene	100		98		70-130	2		20
Methyl tert butyl ether	89		90		63-130	1		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	110		105		70-130	5		20
cis-1,2-Dichloroethene	96		93		70-130	3		20
Dibromomethane	91		90		70-130	1		20
1,2,3-Trichloropropane	94		93		64-130	1		20
Acrylonitrile	79		93		70-130	16		20
Isopropyl Ether	99		97		70-130	2		20
tert-Butyl Alcohol	74		78		70-130	5		20
Styrene	105		100		70-130	5		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05-08 Batch: WG895053-3 WG895053-4								
Dichlorodifluoromethane	95		88		36-147	8		20
Acetone	87		79		58-148	10		20
Carbon disulfide	91		88		51-130	3		20
2-Butanone	93		88		63-138	6		20
Vinyl acetate	84		84		70-130	0		20
4-Methyl-2-pentanone	90		89		59-130	1		20
2-Hexanone	92		90		57-130	2		20
Acrolein	89		97		40-160	9		20
Bromochloromethane	99		100		70-130	1		20
2,2-Dichloropropane	93		89		63-133	4		20
1,2-Dibromoethane	95		95		70-130	0		20
1,3-Dichloropropane	97		97		70-130	0		20
1,1,1,2-Tetrachloroethane	100		97		64-130	3		20
Bromobenzene	100		97		70-130	3		20
n-Butylbenzene	110		100		53-136	10		20
sec-Butylbenzene	110		100		70-130	10		20
tert-Butylbenzene	110		100		70-130	10		20
o-Chlorotoluene	110		100		70-130	10		20
p-Chlorotoluene	100		99		70-130	1		20
1,2-Dibromo-3-chloropropane	80		79		41-144	1		20
Hexachlorobutadiene	95		93		63-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG895053-3 WG895053-4								
Isopropylbenzene	100		98		70-130	2		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	83		86		70-130	4		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	89		90		70-130	1		20
1,2,4-Trichlorobenzene	92		89		70-130	3		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
Methyl Acetate	80		85		70-130	6		20
Ethyl Acetate	94		92		70-130	2		20
Cyclohexane	100		98		70-130	2		20
Ethyl-Tert-Butyl-Ether	92		90		70-130	2		20
Tertiary-Amyl Methyl Ether	88		88		66-130	0		20
1,4-Dioxane	104		110		56-162	6		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		100		70-130	10		20
p-Diethylbenzene	98		96		70-130	2		20
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	110		100		70-130	10		20
Tetrahydrofuran	81		79		58-130	3		20
Ethyl ether	91		91		59-134	0		20
trans-1,4-Dichloro-2-butene	84		83		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i> <i>%Recovery</i>	<i>Qual</i>	<i>LCSD</i> <i>%Recovery</i>	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05-08 Batch: WG895053-3 WG895053-4								
Iodomethane	67	Q	66	Q	70-130	2		20
Methyl cyclohexane	100		97		70-130	3		20

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

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG895665-10 WG895665-11								
Methylene chloride	110		91		70-130	19		20
1,1-Dichloroethane	100		86		70-130	15		20
Chloroform	110		89		70-130	21	Q	20
2-Chloroethylvinyl ether	43	Q	33	Q	70-130	26	Q	20
Carbon tetrachloride	100		84		63-132	17		20
1,2-Dichloropropane	100		84		70-130	17		20
Dibromochloromethane	120		100		63-130	18		20
1,1,2-Trichloroethane	98		83		70-130	17		20
Tetrachloroethene	120		95		70-130	23	Q	20
Chlorobenzene	110		90		75-130	20		20
Trichlorofluoromethane	110		84		62-150	27	Q	20
1,2-Dichloroethane	100		85		70-130	16		20
1,1,1-Trichloroethane	110		92		67-130	18		20
Bromodichloromethane	110		89		67-130	21	Q	20
trans-1,3-Dichloropropene	90		75		70-130	18		20
cis-1,3-Dichloropropene	94		78		70-130	19		20
1,1-Dichloropropene	100		86		70-130	15		20
Bromoform	93		80		54-136	15		20
1,1,2,2-Tetrachloroethane	91		77		67-130	17		20
Benzene	100		87		70-130	14		20
Toluene	100		86		70-130	15		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG895665-10 WG895665-11								
Ethylbenzene	100		86		70-130	15		20
Chloromethane	86		99		64-130	14		20
Bromomethane	82		73		39-139	12		20
Vinyl chloride	110		97		55-140	13		20
Chloroethane	97		100		55-138	3		20
1,1-Dichloroethene	110		87		61-145	23	Q	20
trans-1,2-Dichloroethene	110		91		70-130	19		20
Trichloroethene	100		86		70-130	15		20
1,2-Dichlorobenzene	100		92		70-130	8		20
1,3-Dichlorobenzene	110		93		70-130	17		20
1,4-Dichlorobenzene	110		91		70-130	19		20
Methyl tert butyl ether	110		90		63-130	20		20
p/m-Xylene	110		90		70-130	20		20
o-Xylene	110		90		70-130	20		20
cis-1,2-Dichloroethene	110		92		70-130	18		20
Dibromomethane	100		86		70-130	15		20
1,2,3-Trichloropropane	90		78		64-130	14		20
Acrylonitrile	100		84		70-130	17		20
Isopropyl Ether	96		80		70-130	18		20
tert-Butyl Alcohol	114		98		70-130	15		20
Styrene	110		95		70-130	15		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG895665-10 WG895665-11								
Dichlorodifluoromethane	90		77		36-147	16		20
Acetone	80		79		58-148	1		20
Carbon disulfide	120		91		51-130	27	Q	20
2-Butanone	80		68		63-138	16		20
Vinyl acetate	89		74		70-130	18		20
4-Methyl-2-pentanone	97		85		59-130	13		20
2-Hexanone	85		70		57-130	19		20
Acrolein	91		78		40-160	15		20
Bromochloromethane	110		98		70-130	12		20
2,2-Dichloropropane	100		84		63-133	17		20
1,2-Dibromoethane	110		91		70-130	19		20
1,3-Dichloropropane	100		85		70-130	16		20
1,1,1,2-Tetrachloroethane	120		98		64-130	20		20
Bromobenzene	110		95		70-130	15		20
n-Butylbenzene	97		83		53-136	16		20
sec-Butylbenzene	100		86		70-130	15		20
tert-Butylbenzene	93		79		70-130	16		20
o-Chlorotoluene	100		86		70-130	15		20
p-Chlorotoluene	100		85		70-130	16		20
1,2-Dibromo-3-chloropropane	93		82		41-144	13		20
Hexachlorobutadiene	120		100		63-130	18		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG895665-10 WG895665-11								
Isopropylbenzene	100		89		70-130	12		20
p-Isopropyltoluene	100		86		70-130	15		20
Naphthalene	81		80		70-130	1		20
n-Propylbenzene	98		83		69-130	17		20
1,2,3-Trichlorobenzene	97		98		70-130	1		20
1,2,4-Trichlorobenzene	100		93		70-130	7		20
1,3,5-Trimethylbenzene	110		89		64-130	21	Q	20
1,2,4-Trimethylbenzene	100		90		70-130	11		20
Methyl Acetate	88		74		70-130	17		20
Ethyl Acetate	95		85		70-130	11		20
Cyclohexane	85		70		70-130	19		20
Ethyl-Tert-Butyl-Ether	100		85		70-130	16		20
Tertiary-Amyl Methyl Ether	92		77		66-130	18		20
1,4-Dioxane	132		116		56-162	13		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		83		70-130	19		20
p-Diethylbenzene	98		84		70-130	15		20
p-Ethyltoluene	110		90		70-130	20		20
1,2,4,5-Tetramethylbenzene	95		83		70-130	13		20
Tetrahydrofuran	93		98		58-130	5		20
Ethyl ether	130		110		59-134	17		20
trans-1,4-Dichloro-2-butene	66	Q	55	Q	70-130	18		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i> <i>%Recovery</i>	<i>Qual</i>	<i>LCSD</i> <i>%Recovery</i>	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG895665-10 WG895665-11								
Iodomethane	82		65	Q	70-130	23	Q	20
Methyl cyclohexane	96		79		70-130	19		20

<b>Surrogate</b>	<i>LCS</i> <i>%Recovery</i>	<i>Qual</i>	<i>LCSD</i> <i>%Recovery</i>	<i>Qual</i>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		93		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	106		105		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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): 06-07 QC Batch ID: WG895665-6 WG895665-7 QC Sample: L1614525-06 Client ID: OSMW-4												
Methylene chloride	ND	10	9.8	98		11	110		70-130	12		20
1,1-Dichloroethane	ND	10	10	100		12	120		70-130	18		20
Chloroform	ND	10	11	110		12	120		70-130	9		20
Carbon tetrachloride	ND	10	11	110		12	120		63-132	9		20
1,2-Dichloropropane	ND	10	9.9	99		11	110		70-130	11		20
Dibromochloromethane	ND	10	11	110		12	120		63-130	9		20
1,1,2-Trichloroethane	ND	10	10	100		12	120		70-130	18		20
Tetrachloroethene	0.20J	10	9.9	99		11	110		70-130	11		20
Chlorobenzene	ND	10	9.7	97		11	110		75-130	13		20
Trichlorofluoromethane	ND	10	11	110		12	120		62-150	9		20
1,2-Dichloroethane	ND	10	12	120		13	130		70-130	8		20
1,1,1-Trichloroethane	ND	10	12	120		13	130		67-130	8		20
Bromodichloromethane	ND	10	11	110		12	120		67-130	9		20
trans-1,3-Dichloropropene	ND	10	8.9	89		10	100		70-130	12		20
cis-1,3-Dichloropropene	ND	10	8.7	87		9.9	99		70-130	13		20
1,1-Dichloropropene	ND	10	11	110		12	120		70-130	9		20
Bromoform	ND	10	8.4	84		9.5	95		54-136	12		20
1,1,2,2-Tetrachloroethane	ND	10	9.3	93		10	100		67-130	7		20
Benzene	1.2	10	11	98		13	118		70-130	17		20
Toluene	ND	10	9.6	96		11	110		70-130	14		20
Ethylbenzene	ND	10	9.9	99		11	110		70-130	11		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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): 06-07 QC Batch ID: WG895665-6 WG895665-7 QC Sample: L1614525-06 Client ID: OSMW-4												
Chloromethane	ND	10	10	100		12	120		64-130	18		20
Bromomethane	ND	10	3.8	38	Q	4.8	48		39-139	23	Q	20
Vinyl chloride	ND	10	9.4	94		11	110		55-140	16		20
Chloroethane	ND	10	7.5	75		8.9	89		55-138	17		20
1,1-Dichloroethene	ND	10	9.4	94		11	110		61-145	16		20
trans-1,2-Dichloroethene	ND	10	9.6	96		11	110		70-130	14		20
Trichloroethene	0.53	10	10	95		12	115		70-130	18		20
1,2-Dichlorobenzene	ND	10	10	99		11	109		70-130	10		20
1,3-Dichlorobenzene	ND	10	9.8	98		11	110		70-130	12		20
1,4-Dichlorobenzene	ND	10	9.6	96		11	110		70-130	14		20
Methyl tert butyl ether	ND	10	11	104		12	114		63-130	9		20
p/m-Xylene	ND	20	20	99		23	114		70-130	14		20
o-Xylene	ND	20	20	100		23	115		70-130	14		20
cis-1,2-Dichloroethene	ND	10	9.9	97		11	108		70-130	11		20
Dibromomethane	ND	10	10	100		12	120		70-130	18		20
1,2,3-Trichloropropane	ND	10	10	100		11	110		64-130	10		20
Acrylonitrile	ND	10	12	120		13	130		70-130	8		20
Isopropyl Ether	ND	10	9.9	99		11	110		70-130	11		20
tert-Butyl Alcohol	ND	50	54	108		62	124		70-130	14		20
Styrene	ND	20	21	105		24	120		70-130	13		20
Dichlorodifluoromethane	ND	10	9.5	95		10	100		36-147	5		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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): 06-07 QC Batch ID: WG895665-6 WG895665-7 QC Sample: L1614525-06 Client ID: OSMW-4												
Acetone	ND	10	12	107		11	97		58-148	9		20
Carbon disulfide	ND	10	10	100		12	120		51-130	18		20
2-Butanone	ND	10	12	120		13	130		63-138	8		20
Vinyl acetate	ND	10	9.8	98		11	110		70-130	12		20
4-Methyl-2-pentanone	ND	10	9.8	98		10	100		59-130	2		20
2-Hexanone	ND	10	10	100		11	110		57-130	10		20
Acrolein	ND	10	14	140		15	150		40-160	7		20
Bromochloromethane	ND	10	9.8	98		11	110		70-130	12		20
2,2-Dichloropropane	ND	10	10	100		12	120		63-133	18		20
1,2-Dibromoethane	ND	10	9.8	98		11	110		70-130	12		20
1,3-Dichloropropane	ND	10	9.9	99		11	110		70-130	11		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		12	120		64-130	9		20
Bromobenzene	ND	10	9.4	94		11	110		70-130	16		20
n-Butylbenzene	ND	10	10	99		12	119		53-136	18		20
sec-Butylbenzene	ND	10	10	97		12	117		70-130	18		20
tert-Butylbenzene	ND	10	9.1	90		10	99		70-130	9		20
o-Chlorotoluene	ND	10	9.8	98		11	110		70-130	12		20
p-Chlorotoluene	ND	10	9.9	99		11	110		70-130	11		20
1,2-Dibromo-3-chloropropane	ND	10	9.0	90		10	100		41-144	11		20
Hexachlorobutadiene	ND	10	11	110		13	130		63-130	17		20
Isopropylbenzene	ND	10	10	96		12	116		70-130	18		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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): 06-07 QC Batch ID: WG895665-6 WG895665-7 QC Sample: L1614525-06 Client ID: OSMW-4												
p-Isopropyltoluene	ND	10	9.9	99		11	110		70-130	11		20
Naphthalene	ND	10	9.2	92		12	120		70-130	26	Q	20
n-Propylbenzene	ND	10	9.9	98		11	109		69-130	11		20
1,2,3-Trichlorobenzene	ND	10	8.6	86		12	120		70-130	33	Q	20
1,2,4-Trichlorobenzene	ND	10	10	100		12	120		70-130	18		20
1,3,5-Trimethylbenzene	ND	10	10	100		12	120		64-130	18		20
1,2,4-Trimethylbenzene	ND	10	10	100		12	120		70-130	18		20
Methyl Acetate	ND	10	8.9	89		9.8	98		70-130	10		20
Ethyl Acetate	ND	10	10	100		11	110		70-130	10		20
Cyclohexane	2.7J	10	12	120		13	130		70-130	8		20
Ethyl-Tert-Butyl-Ether	ND	10	10	100		12	120		70-130	18		20
Tertiary-Amyl Methyl Ether	ND	10	8.8	88		10	100		66-130	13		20
1,4-Dioxane	ND	500	570	114		550	110		56-162	4		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	10	100		11	110		70-130	10		20
p-Diethylbenzene	ND	10	9.8	93		11	105		70-130	12		20
p-Ethyltoluene	ND	10	10	100		12	120		70-130	18		20
1,2,4,5-Tetramethylbenzene	2.7	10	13	103		15	123		70-130	14		20
Tetrahydrofuran	ND	10	14	140	Q	15	150	Q	58-130	7		20
Ethyl ether	ND	10	8.4	84		9.5	95		59-134	12		20
trans-1,4-Dichloro-2-butene	ND	10	7.1	71		8.0	80		70-130	12		20
Iodomethane	ND	10	5.5	55	Q	6.9	69	Q	70-130	23	Q	20

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

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

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): 06-07 QC Batch ID: WG895665-6 WG895665-7 QC Sample: L1614525-06 Client ID: OSMW-4												
Methyl cyclohexane	1.5J	10	11	110		13	130		70-130	17		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		119		70-130
4-Bromofluorobenzene	107		108		70-130
Dibromofluoromethane	111		110		70-130
Toluene-d8	104		105		70-130

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1614525-01A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-01B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-01C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-02A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-02B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-02C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-03A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-03B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-03C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-04A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-04B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-04C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-05A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-05B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-05C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06A1	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06A2	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06B1	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06B2	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06C1	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-06C2	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-07A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-07B	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-07C	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)
L1614525-08A	Vial HCl preserved	A	N/A	5.2	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

## GLOSSARY

### **Acronyms**

- 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).
- 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.
- 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.
- 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.
- 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.
- 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**

- 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**

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.

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.

### **Data Qualifiers**

- A - Spectra identified as "Aldol Condensation Product".
- 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).

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



**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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



**Project Name:** WAVERLY AVE  
**Project Number:** 28012

**Lab Number:** L1614525  
**Report Date:** 05/23/16

## 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 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amyl methyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
EPA 1010A: NPW: Ignitability  
EPA 6010C: NPW: Strontium; SCM: Strontium  
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
EPA 9038: NPW: Sulfate  
EPA 9050A: NPW: Specific Conductance  
EPA 9056: NPW: Chloride, Nitrate, Sulfate  
EPA 9065: NPW: Phenols  
EPA 9251: NPW: Chloride  
SM3500: NPW: Ferrous Iron  
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
SM5310C: DW: Dissolved Organic Carbon

**Mansfield Facility**

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane  
SM 2540D: TSS  
SM2540G: SCM: Percent Solids  
EPA 1631E: SCM: Mercury  
EPA 7474: SCM: Mercury  
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.  
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.  
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.  
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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A**: Lead; **8270D**: bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

---

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

**Drinking Water**

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1**: Mercury;  
EPA 300.0: 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**  
EPA 332: Perchlorate.

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

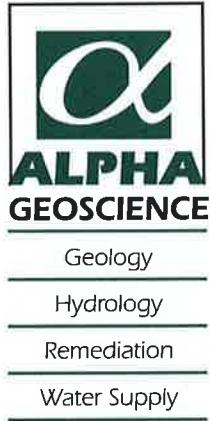
**Non-Potable Water**

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;  
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;  
EPA 245.1, **SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1**: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, **SM4500NO3-F**,  
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D**.  
EPA 624: Volatile Halocarbons & Aromatics,  
EPA 608: 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: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.  
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

---

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

<b>NEW YORK CHAIN OF CUSTODY</b>		Service Centers		Page 1		Date Rec'd in Lab	5/13/16	ALPHA Job # <u>11614525</u>	
		Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		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: Waverly Ave		<input checked="" type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input type="checkbox"/> Same as Client Info PO #	
Client Information		Project Location: NY		Project #: 28012		Regulatory Requirement		Disposal Site Information	
Client: Sterling Environmental Engineering (Use Project name as Project #) <input type="checkbox"/>		Address: 24 Wade Rd		Project Manager: Cody Sargood		<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.	
Latham, NY 12110		Phone: 518-456-4900		Turn-Around Time				Disposal Facility: <input type="checkbox"/> NJ <input checked="" type="checkbox"/> NY <input type="checkbox"/> Other: NA	
Fax: 518-456-3532		Email: cody.sargood@sterlingenvironmental.com		Standard <input checked="" type="checkbox"/> Due Date: 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: cody.sargood@sterlingenvironmental.com * Category B Report *									
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS		Sample Filtration	
		Date	Time			VOCs 8260	Done	Lab to do	Preservation
14525 - 01	B6-OWD	5/12/16	1145	H2O	<input checked="" type="checkbox"/>	X			?
02	GZ-21D		1310		<input checked="" type="checkbox"/>	X			
03	GZ-22D		1230		<input checked="" type="checkbox"/>	X			
04	GZ-23D		1440		<input checked="" type="checkbox"/>	X			
05	OSMW-3		1405		<input checked="" type="checkbox"/>	X			
06	OSMW-4		1040		<input checked="" type="checkbox"/>	X			
06	MS/MSD		1040		<input checked="" type="checkbox"/>	X			
07	DUPLICATE		--		<input checked="" type="checkbox"/>	X			
08	TRIP BLANK		12:00		<input checked="" type="checkbox"/>	X			
Preservative Code: A = None B = HCl C = HNO3 D = H2SO4 E = NaOH F = MeOH G = NaHSO4 H = Na2S2O3 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		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.	
						Preservative B			
Relinquished By: <i>Cody Sargood</i> <i>Faulty Data</i>		Date/Time: 5/12/16 18:00		Received By: <i>Cody Sargood</i> <i>Online</i>		Date/Time 5/12/16 18:00 5/13/16 00:00			
Form No: 01-25 (rev. 30-Sept-2013)									



May 25, 2016

Mr. Cody M. Sargood  
Assistant Engineer  
Sterling Environmental Engineering, P.C.  
24 Wade Road  
Latham, New York 12110

Re: Data Validation Report  
Waverly Avenue  
May 2016 Ground Water Sampling Event

Dear Mr. Sargood:

The data usability summary report and QA/QC review are attached to this letter for the above referenced project sampling event. The data for Alpha Analytical Labs, lab number L1614525 were acceptable with some minor issues that are identified and discussed in the validation summary. There were no data that were flagged 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

Z:\projects\2009\09600 - 09620\09619-waverly ave\2016\waverly ave-162.ltr.wpd

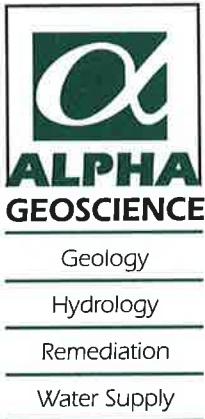
## **Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II**

- 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.
- 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  
Lab Number: L1614525**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected May 12, 2016**

Prepared by: Donald Anné  
May 25, 2016

---

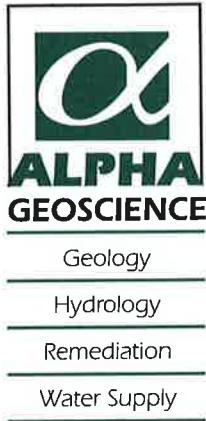
The data package contained the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results volatile analyses for 6 ground water samples, 1 field duplicate, and 1 trip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

- Positive volatile results for tetrachloroethene were flagged as estimated (J) in samples OSMW-4 and DUPLICATE because the relative percent difference for tetrachloroethene was above the allowable maximum in the associated aqueous LCS/LCSD.

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 reviews.



**QA/QC Review of Method 8260B Volatiles  
Data for Alpha Analytical Labs  
Lab Number: L1614525**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected May 12, 2016**

Prepared by: Donald Anné  
May 25, 2016

**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 SPCCs and CCCs were within method 8260B criteria.

The average RRFs for target compounds were above the allowable minimum (0.0005 for 1,4-dioxane, 0.010 for all other compounds) and the %RSDs were below the allowable maximum (30%), as required.

**Continuing Calibration:** The SPCCs and CCCs were within method 8260B criteria.

The RRFs for target compounds were above the allowable minimum (0.0005 for 1,4-dioxane, 0.010 for all other compounds), as required.

The %D for 1,4-dioxane was above the allowable maximum (25%) on 05-19-16 (V05160519N03). Positive results for 1,4-dioxane should be considered estimated (J) in associated samples.

**Blanks:** Method the blank WG895665-12BLANK contained a trace of 1,2,3-trichlorobenzene (0.84 ug/L). Positive results for 1,2,3-trichlorobenzene that are less than 5 times the highest 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.

Matrix Spike/Matrix Spike Duplicate: Two of fifty-two relative percent differences for target compounds were above the allowable maximum and 1 of 104 percent recoveries was below QC limits for aqueous MS/MSD sample B6-OWD. No action is taken on MS/MSD data alone to qualify or reject an entire set of samples.

Laboratory Control Sample: The relative percent differences (RPDs) for target compounds were below the allowable maximum and the percent recoveries (%Rs) were within QC limits for aqueous samples WG898083-3LCS and WG895053-4LCSD.

The %Rs for target compounds were within QC limits, but the RPDs for chloroform, tetrachloroethene, trichlorofluoromethane, bromodichloromethane, 1,1-dichloroethene, and carbon disulfide were above the allowable maximum for aqueous samples WG895665-10 and WG895665-11. Positive results for these compounds should be considered estimated (J) in associated aqueous samples.

Field Duplicates: The relative percent differences for benzene and trichloroethene were below the allowable maximum (20%) for aqueous field duplicate pair OSMW-4/DUPLICATE (attached table), as required.

Compound ID: Checked compounds 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. L1614525

S1= OSMW-4

S2= DUPLICATE

Analyte	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
tetrachloroethene	<b>0.20</b>	<b>0.19</b>	NC
benzene	<b>1.2</b>	<b>1.2</b>	0%
trichloroethene	<b>0.53</b>	<b>0.58</b>	9%
cyclohexane	<b>2.7</b>	<b>2.3</b>	NC
methyl cyclohexane	<b>1.5</b>	<b>1.2</b>	NC

\* RPD is above the allowable maximum (20%)

All results are in ug/L

**Bold numbers were values that 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  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Matrix	: WATER		
LCS Sample ID	: WG895665-10	Analysis Date : 05/19/16 20:07	File ID : V05160519N03
LCSD Sample ID	: WG895665-11	Analysis Date : 05/19/16 20:30	File ID : V05160519N04

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	11.	110	10	9.1	91	19	70-130	20	
1,1-Dichloroethane	10	10.	100	10	8.6	86	15	70-130	20	
Chloroform	10	11.	110	10	8.9	89	21 Q	70-130	20	
2-Chloroethylvinyl ether	NA	4.3	43 Q	NA	3.3	NA	33 Q 26 Q	NA	70-130	20
Carbon tetrachloride	10	10.	100	10	8.4	84	17	63-132	20	
1,2-Dichloropropane	10	10.	100	10	8.4	84	17	70-130	20	
Dibromochloromethane	10	12.	120	10	10.	100	18	63-130	20	
1,1,2-Trichloroethane	10	9.8	98	10	8.3	83	17	70-130	20	
Tetrachloroethene	10	12.	120	10	9.5	95	23 Q	70-130	20	
Chlorobenzene	10	11.	110	10	9.0	90	20	75-130	20	
Trichlorofluoromethane	10	11.	110	10	8.4	84	27 Q	62-150	20	
1,2-Dichloroethane	10	10.	100	10	8.5	85	16	70-130	20	
1,1,1-Trichloroethane	10	11.	110	10	9.2	92	18	67-130	20	
Bromodichloromethane	10	11.	110	10	8.9	89	21 Q	67-130	20	
trans-1,3-Dichloropropene	10	9.0	90	10	7.5	75	18	70-130	20	
cis-1,3-Dichloropropene	10	9.4	94	10	7.8	78	19	70-130	20	
1,1-Dichloropropene	10	10.	100	10	8.6	86	15	70-130	20	
Bromoform	10	9.3	93	10	8.0	80	15	54-136	20	
1,1,2,2-Tetrachloroethane	10	9.1	91	10	7.7	77	17	67-130	20	
Benzene	10	10.	100	10	8.7	87	14	70-130	20	
Toluene	10	10.	100	10	8.6	86	15	70-130	20	
Ethylbenzene	10	10.	100	10	8.6	86	15	70-130	20	
Chloromethane	10	8.6	86	10	9.9	99	14	64-130	20	
Bromomethane	10	8.2	82	10	7.3	73	12	39-139	20	
Vinyl chloride	10	11.	110	10	9.7	97	13	55-140	20	
Chloroethane	10	9.7	97	10	10.	100	3	55-138	20	
1,1-Dichloroethene	10	11.	110	10	8.7	87	23 Q	61-145	20	
trans-1,2-Dichloroethene	10	11.	110	10	9.1	91	19	70-130	20	



**Laboratory Control Sample  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Matrix	: WATER		
LCS Sample ID	: WG895665-10	Analysis Date : 05/19/16 20:07	File ID : V05160519N03
LCSD Sample ID	: WG895665-11	Analysis Date : 05/19/16 20:30	File ID : V05160519N04

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	10.	100	10	8.6	86	15	70-130	20
1,2-Dichlorobenzene	10	10.	100	10	9.2	92	8	70-130	20
1,3-Dichlorobenzene	10	11.	110	10	9.3	93	17	70-130	20
1,4-Dichlorobenzene	10	11.	110	10	9.1	91	19	70-130	20
Methyl tert butyl ether	10	11.	110	10	9.0	90	20	63-130	20
p/m-Xylene	20	22.	110	20	18.	90	20	70-130	20
o-Xylene	20	22.	110	20	18.	90	20	70-130	20
cis-1,2-Dichloroethene	10	11.	110	10	9.2	92	18	70-130	20
Dibromomethane	10	10.	100	10	8.6	86	15	70-130	20
1,2,3-Trichloropropane	10	9.0	90	10	7.8	78	14	64-130	20
Acrylonitrile	10	10.	100	10	8.4	84	17	70-130	20
Isopropyl Ether	10	9.6	96	10	8.0	80	18	70-130	20
tert-Butyl Alcohol	50	57.	114	50	49.	98	15	70-130	20
Styrene	20	22.	110	20	19.	95	15	70-130	20
Dichlorodifluoromethane	10	9.0	90	10	7.7	77	16	36-147	20
Acetone	10	8.0	80	10	7.9	79	1	58-148	20
Carbon disulfide	10	12.	120	10	9.1	91	27 Q	51-130	20
2-Butanone	10	8.0	80	10	6.8	68	16	63-138	20
Vinyl acetate	10	8.9	89	10	7.4	74	18	70-130	20
4-Methyl-2-pentanone	10	9.7	97	10	8.5	85	13	59-130	20
2-Hexanone	10	8.5	85	10	7.0	70	19	57-130	20
Acrolein	10	9.1	91	10	7.8	78	15	40-160	20
Bromochloromethane	10	11.	110	10	9.8	98	12	70-130	20
2,2-Dichloropropane	10	10.	100	10	8.4	84	17	63-133	20
1,2-Dibromoethane	10	11.	110	10	9.1	91	19	70-130	20
1,3-Dichloropropane	10	10.	100	10	8.5	85	16	70-130	20
1,1,1,2-Tetrachloroethane	10	12.	120	10	9.8	98	20	64-130	20
Bromobenzene	10	11.	110	10	9.5	95	15	70-130	20

**Laboratory Control Sample  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Matrix	: WATER		
LCS Sample ID	: WG895665-10	Analysis Date : 05/19/16 20:07	File ID : V05160519N03
LCSD Sample ID	: WG895665-11	Analysis Date : 05/19/16 20:30	File ID : V05160519N04

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			
n-Butylbenzene	10	9.7	97	10	8.3	83	16	53-136	20
sec-Butylbenzene	10	10.	100	10	8.6	86	15	70-130	20
tert-Butylbenzene	10	9.3	93	10	7.9	79	16	70-130	20
o-Chlorotoluene	10	10.	100	10	8.6	86	15	70-130	20
p-Chlorotoluene	10	10.	100	10	8.5	85	16	70-130	20
1,2-Dibromo-3-chloropropane	10	9.3	93	10	8.2	82	13	41-144	20
Hexachlorobutadiene	10	12.	120	10	10.	100	18	63-130	20
Isopropylbenzene	10	10.	100	10	8.9	89	12	70-130	20
p-Isopropyltoluene	10	10.	100	10	8.6	86	15	70-130	20
Naphthalene	10	8.1	81	10	8.0	80	1	70-130	20
n-Propylbenzene	10	9.8	98	10	8.3	83	17	69-130	20
1,2,3-Trichlorobenzene	10	9.7	97	10	9.8	98	1	70-130	20
1,2,4-Trichlorobenzene	10	10.	100	10	9.3	93	7	70-130	20
1,3,5-Trimethylbenzene	NA	10	110	10	8.9	89	21	Q NA	64-130
1,2,4-Trimethylbenzene	10	10.	100	10	9.0	90	11	70-130	20
Methyl Acetate	10	8.8	88	10	7.4	74	17	70-130	20
Ethyl Acetate	10	9.5	95	10	8.5	85	11	70-130	20
Cyclohexane	10	8.5	85	10	7.0	70	19	70-130	20
Ethyl-Tert-Butyl-Ether	10	10.	100	10	8.5	85	16	70-130	20
Tertiary-Amyl Methyl Ether	10	9.2	92	10	7.7	77	18	66-130	20
1,4-Dioxane	500	660	132	500	580	116	13	56-162	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	10.	100	10	8.3	83	19	70-130	20
p-Diethylbenzene	10	9.8	98	10	8.4	84	15	70-130	20
p-Ethyltoluene	10	11.	110	10	9.0	90	20	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.5	95	10	8.3	83	13	70-130	20
Tetrahydrofuran	10	9.3	93	10	9.8	98	5	58-130	20
Ethyl ether	10	13.	130	10	11.	110	17	59-134	20
trans-1,4-Dichloro-2-butene	NA	10	6.6 Q NA	10	5.5	NA	55 Q 18	70-130	20



**Laboratory Control Sample**  
**Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Matrix	: WATER		
LCS Sample ID	: WG895665-10	Analysis Date : 05/19/16 20:07	File ID : V05160519N03
LCSD Sample ID	: WG895665-11	Analysis Date : 05/19/16 20:30	File ID : V05160519N04

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			
Iodomethane	NA	10	8.2	82	10	6.5	NA	65 Q	23 Q M 70-130
Methyl cyclohexane		10	9.6	96	10	7.9	79	19	70-130

**Matrix Spike  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Client Sample ID	: OSMW-4	Matrix	: WATER
Lab Sample ID	: L1614525-06	Analysis Date	: 05/19/16 22:26
Matrix Spike	: WG895665-6	MS Analysis Date	: 05/18/16 16:40
Matrix Spike Dup	: WG895665-7	MSD Analysis Date	: 05/18/16 17:03

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)			
Methylene chloride	ND	10	9.8	98	10	11.	110	12	70-130
1,1-Dichloroethane	ND	10	10.	100	10	12.	120	18	70-130
Chloroform	ND	10	11.	110	10	12.	120	9	70-130
Carbon tetrachloride	ND	10	11.	110	10	12.	120	9	63-132
1,2-Dichloropropane	ND	10	9.9	99	10	11.	110	11	70-130
Dibromochloromethane	ND	10	11.	110	10	12.	120	9	63-130
1,1,2-Trichloroethane	ND	10	10.	100	10	12.	120	18	70-130
Tetrachloroethene	0.20J	10	9.9	99	10	11.	110	11	70-130
Chlorobenzene	ND	10	9.7	97	10	11.	110	13	75-130
Trichlorofluoromethane	ND	10	11.	110	10	12.	120	9	62-150
1,2-Dichloroethane	ND	10	12.	120	10	13.	130	8	70-130
1,1,1-Trichloroethane	ND	10	12.	120	10	13.	130	8	67-130
Bromodichloromethane	ND	10	11.	110	10	12.	120	9	67-130
trans-1,3-Dichloropropene	ND	10	8.9	89	10	10.	100	12	70-130
cis-1,3-Dichloropropene	ND	10	8.7	87	10	9.9	99	13	70-130
1,1-Dichloropropene	ND	10	11.	110	10	12.	120	9	70-130
Bromoform	ND	10	8.4	84	10	9.5	95	12	54-136
1,1,2,2-Tetrachloroethane	ND	10	9.3	93	10	10.	100	7	67-130
Benzene	1.2	10	11.	98	10	13.	118	17	70-130
Toluene	ND	10	9.6	96	10	11.	110	14	70-130
Ethylbenzene	ND	10	9.9	99	10	11.	110	11	70-130
Chloromethane	ND	10	10.	100	10	12.	120	18	64-130
Bromomethane	ND	10	3.8	38 Q	10	4.8	48	23 Q	39-139
Vinyl chloride	ND	10	9.4	94	10	11.	110	16	55-140

**Matrix Spike  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Client Sample ID	: OSMW-4	Matrix	: WATER
Lab Sample ID	: L1614525-06	Analysis Date	: 05/19/16 22:26
Matrix Spike	: WG895665-6	MS Analysis Date	: 05/18/16 16:40
Matrix Spike Dup	: WG895665-7	MSD Analysis Date	: 05/18/16 17:03

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			
Chloroethane	ND	10	7.5	75	10	8.9	89	17	55-138	20
1,1-Dichloroethene	ND	10	9.4	94	10	11.	110	16	61-145	20
trans-1,2-Dichloroethene	ND	10	9.6	96	10	11.	110	14	70-130	20
Trichloroethene	0.53	10	10.	95	10	12.	115	18	70-130	20
1,2-Dichlorobenzene	ND	10	10.	99	10	11.	109	10	70-130	20
1,3-Dichlorobenzene	ND	10	9.8	98	10	11.	110	12	70-130	20
1,4-Dichlorobenzene	ND	10	9.6	96	10	11.	110	14	70-130	20
Methyl tert butyl ether	ND	10	11.	104	10	12.	114	9	63-130	20
p/m-Xylene	ND	20	20.	99	20	23.	114	14	70-130	20
o-Xylene	ND	20	20.	100	20	23.	115	14	70-130	20
cis-1,2-Dichloroethene	ND	10	9.9	97	10	11.	108	11	70-130	20
Dibromomethane	ND	10	10.	100	10	12.	120	18	70-130	20
1,2,3-Trichloropropane	ND	10	10.	100	10	11.	110	10	64-130	20
Acrylonitrile	ND	10	12.	120	10	13.	130	8	70-130	20
Isopropyl Ether	ND	10	9.9	99	10	11.	110	11	70-130	20
tert-Butyl Alcohol	ND	50	54.	108	50	62.	124	14	70-130	20
Styrene	ND	20	21.	105	20	24.	120	13	70-130	20
Dichlorodifluoromethane	ND	10	9.5	95	10	10.	100	5	36-147	20
Acetone	ND	10	12.	107	10	11.	97	9	58-148	20
Carbon disulfide	ND	10	10.	100	10	12.	120	18	51-130	20
2-Butanone	ND	10	12.	120	10	13.	130	8	63-138	20
Vinyl acetate	ND	10	9.8	98	10	11.	110	12	70-130	20
4-Methyl-2-pentanone	ND	10	9.8	98	10	10.	100	2	59-130	20
2-Hexanone	ND	10	10.	100	10	11.	110	10	57-130	20



**Matrix Spike  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Client Sample ID	: OSMW-4	Matrix	: WATER
Lab Sample ID	: L1614525-06	Analysis Date	: 05/19/16 22:26
Matrix Spike	: WG895665-6	MS Analysis Date	: 05/18/16 16:40
Matrix Spike Dup	: WG895665-7	MSD Analysis Date	: 05/18/16 17:03

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				
Acrolein	ND	10	14.	140	10	15.	150	7	40-160	20	
Bromochloromethane	ND	10	9.8	98	10	11.	110	12	70-130	20	
2,2-Dichloropropane	ND	10	10.	100	10	12.	120	18	63-133	20	
1,2-Dibromoethane	ND	10	9.8	98	10	11.	110	12	70-130	20	
1,3-Dichloropropane	ND	10	9.9	99	10	11.	110	11	70-130	20	
1,1,1,2-Tetrachloroethane	ND	10	11.	110	10	12.	120	9	64-130	20	
Bromobenzene	ND	10	9.4	94	10	11.	110	16	70-130	20	
n-Butylbenzene	ND	10	10.	99	10	12.	119	18	53-136	20	
sec-Butylbenzene	ND	10	10.	97	10	12.	117	18	70-130	20	
tert-Butylbenzene	ND	10	9.1	90	10	10.	99	9	70-130	20	
o-Chlorotoluene	ND	10	9.8	98	10	11.	110	12	70-130	20	
p-Chlorotoluene	ND	10	9.9	99	10	11.	110	11	70-130	20	
1,2-Dibromo-3-chloropropane	ND	10	9.0	90	10	10.	100	11	41-144	20	
Hexachlorobutadiene	ND	10	11.	110	10	13.	130	17	63-130	20	
Isopropylbenzene	ND	10	10.	96	10	12.	116	18	70-130	20	
p-Isopropyltoluene	ND	10	9.9	99	10	11.	110	11	70-130	20	
Naphthalene	NA	ND	10	9.2	92	10	12.	120	NA 26 Q	70-130	20
n-Propylbenzene	ND	10	9.9	98	10	11.	109	11	69-130	20	
1,2,3-Trichlorobenzene	ND	10	8.6	86	10	12.	120	33 Q	70-130	20	
1,2,4-Trichlorobenzene	ND	10	10.	100	10	12.	120	18	70-130	20	
1,3,5-Trimethylbenzene	ND	10	10.	100	10	12.	120	18	64-130	20	
1,2,4-Trimethylbenzene	ND	10	10.	100	10	12.	120	18	70-130	20	
Methyl Acetate	ND	10	8.9	89	10	9.8	98	10	70-130	20	
Ethyl Acetate	ND	10	10.	100	10	11.	110	10	70-130	20	



**Matrix Spike  
Form 3**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Client Sample ID	: OSMW-4	Matrix	: WATER
Lab Sample ID	: L1614525-06	Analysis Date	: 05/19/16 22:26
Matrix Spike	: WG895665-6	MS Analysis Date	: 05/18/16 16:40
Matrix Spike Dup	: WG895665-7	MSD Analysis Date	: 05/18/16 17:03

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						
Cyclohexane	2.7J	10	12.	120	10	13.	130	8	70-130	20			
Ethyl-Tert-Butyl-Ether	ND	10	10.	100	10	12.	120	18	70-130	20			
Tertiary-Amyl Methyl Ether	ND	10	8.8	88	10	10.	100	13	66-130	20			
1,4-Dioxane	ND	500	570	114	500	550	110	4	56-162	20			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	10.	100	10	11.	110	10	70-130	20			
p-Diethylbenzene	ND	10	9.8	93	10	11.	105	12	70-130	20			
p-Ethyltoluene	ND	10	10.	100	10	12.	120	18	70-130	20			
1,2,4,5-Tetramethylbenzene	2.7	10	13.	103	10	15.	123	14	70-130	20			
Tetrahydrofuran <i>NA</i>	ND	10	14.	<i>NA</i>	140 Q	10	15.	<i>NA</i>	150 Q	7	58-130	20	
Ethyl ether	ND	10	8.4	84	10	9.5	95	12	59-134	20			
trans-1,4-Dichloro-2-butene	ND	10	7.1	71	10	8.0	80	12	70-130	20			
Iodomethane <i>NA</i>	ND	10	5.5	<i>NA</i>	55 Q	10	6.9	<i>NA</i>	69 Q	23 Q	<i>NA</i>	70-130	20
Methyl cyclohexane	1.5J	10	11.	110	10	13.	130	17	70-130	20			

**Form 1  
VOA**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Lab ID	: WG895665-12	Date Collected	: NA
Client ID	: WG895665-12BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/19/16 21:16
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MS
Lab File ID	: V05160519N06	Instrument ID	: VOA105
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	0.13	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	0.14	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	0.14	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U



**Form 1  
VOA**

Client	: Sterling Environmental Eng	Lab Number	: L1614525
Project Name	: WAVERLY AVE	Project Number	: 28012
Lab ID	: WG895665-12	Date Collected	: NA
Client ID	: WG895665-12BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/19/16 21:16
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MS
Lab File ID	: V05160519N06	Instrument ID	: VOA105
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
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	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	0.84	2.5	0.70	J
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	41.	U
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U

