AECOM Environment

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Annual Long Term Monitoring Report

For 2014 Utility Manufacturing/Wonder King (Site No. 130043H)

August 21, 2014

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1.0 Introduction

AECOM Technical Services Northeast, Inc. (AECOM) has been issued Work Assignment #D007626-16 under the New York State Department of Environmental Conservation (NYSDEC) State Superfund Standby Program. The site under this work assignment is Utility Manufacturing/Wonder King (Utility Manufacturing), Operable Unit No. 2 (Site No. 130043H). The location of the site is shown on Figure 1.

The scope of work for this project consisted of collecting a round of groundwater samples from nine wells in 2013. The work was performed in accordance with NYSDEC Division of Environmental Remediation Final DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010). The annual long term monitoring report for 2013 was converted to a periodic review report, which was submitted December 30, 2013. The scope of work was amended on May 16, 2014 to include annual long term groundwater monitoring and reporting for 2014 through 2017.

1.1 Background

The Utility Manufacturing site is located at 700-712 Main Street (south side) between Bond Street and Frost Street, approximately 500 feet (ft) north of Old Country Road in the New Cassel Industrial Area (NCIA), Westbury, Nassau County, New York. The site and study area for Operable Unit No. 2 are located within the NCIA (Figure 1), which is a 170-acre industrial and commercial area on the north side of Old Country Road. The sites within the Operable Unit No. 2 consist mostly of commercial and industrial operations including an auto repair facility, auto garage, office spaces, warehouse, and machine tool shop. The Former Applied Fluidics site, No. 130043M, is located approximately 750 feet east of the Utility Manufacturing site. The 89 Frost Street site, No. 130043L, and the Former Autoline Automotive site, No. 130043I, are adjacent to the Former Applied Fluidics site. All three of these sites are Class 2 sites.

1.2 Previous Investigations Conducted at the Utility Manufacturing Site

AECOM completed the initial scope of work for this project including project scoping, preparation of plans and specifications, oversight of construction services including sub-slab depressurization system installation at one facility and installation of six monitoring wells, and one round of groundwater and indoor air sampling under Work Assignment #D004436-32 issued by NYSDEC. The work was performed in accordance with NYSDEC Division of Environmental Remediation Final DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010) and the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH; Final, October 2006). The work conducted under the initial scope (well installation, groundwater sampling, and indoor air sampling) was completed in 2010 and documented in the Final Annual Long Term Monitoring Report (AECOM, 2011). In August 2011, two rounds of monitoring well sampling and vapor intrusion sampling at two structures was conducted. One round of monitoring well sampling and soil vapor intrusion sampling at one structure conducted in 2011 was documented in the Annual Long Term Monitoring Report for 2011 (AECOM, 2012a). One round of monitoring well sampling in 2012 was documented in the Annual Long Term Monitoring Report for 2012 (AECOM, 2012b). The Periodic Review Report Review Period November 27, 2012 to December 14, 2013 (AECOM, 2013) which was prepared for the site included documentation of one round of groundwater sampling in 2013.

A summary of the site investigations conducted for the Utility Manufacturing site between 1986 and 2007 is provided in the Record of Decision (ROD) dated March 2008 for Operable Unit No. 2 (NYSDEC, 2008).

1.3 Selected Remedy

A ROD presenting the selected remedy for Operable Unit No. 2 was finalized by NYSDEC in March 2008. The elements of the selected remedy are as follows:

1. Implementation of a remedial design program to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.
2. Installation of sub-slab depressurization systems in three off-site buildings that have vapor intrusion impacts.
3. Collection of periodic sub-slab vapor, indoor air and outdoor air samples at three properties where the potential for vapor intrusion exists. Periodic sampling will continue until sampling results indicate that continued sampling is no longer required.
4. Natural attenuation of groundwater contamination within the study area.
5. Imposition of an institutional control in the form of an environmental easement on the site that will require: (a) compliance with the approved site management plan; and (b) the property owner to complete and submit to NYSDEC (the Department) a periodic certification of institutional and engineering controls.
6. Development of a site management plan which will include the following institutional and engineering controls: (a) monitoring of groundwater, sub-slab vapor, indoor air and outdoor air; and (b) provisions for the continued proper operation and maintenance of the components of the remedy.
7. Provision of a periodic certification of institutional and engineering controls by the property owner, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed.
8. Continued operation of the components of the remedy until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
9. Since the remedy results in untreated hazardous waste remaining at the site, a long-term monitoring program will be instituted. Up to nine monitoring wells will be sampled periodically for VOCs to track the progress of the natural attenuation. In addition, sub-slab vapor, indoor air and outdoor air samples will be obtained and analyzed for VOCs at three buildings with potential vapor intrusion impacts. This program will allow the effectiveness of the natural attenuation and soil vapor intrusion mitigation measures to be monitored and will be a component of the operation, maintenance, and monitoring for the site.

Vapor intrusion sampling at three structures (item 3) and groundwater monitoring sampling (item 9) were conducted in 2010 and documented in the Final Annual Long Term Monitoring Report for 2011 (AECOM, 2011). Of the three off-site buildings identified for installation of sub-slab depressurization systems (item 2), property managers for two of the structures (6 and 9) have declined to have the systems installed. NYSDEC has proposed to collect vapor intrusion samples from these structures instead. To date, the firm managing Structure 9 has declined to have the vapor intrusion samples collected. Subsequent testing at Structure 6 indicates an SSDS system is not required. Since finalizing the ROD, NYSDEC has determined that an environmental easement (item 5) is not needed for the site (NYSDEC, 2012). A site management plan (AECOM, 2012c) was approved for the site by NYSDEC in September 2012 (item 6). The groundwater sampling documented in this report was completed in accordance with the long-term monitoring requirements for the site (item 9).

2.0 Field Investigation

Groundwater sampling and collection of groundwater elevation measurements was conducted in June 2014. Groundwater samples were collected from the nine wells shown on Figure 2. Well construction data is provided in Table 1. YEC, Inc. participated in field activities as a subcontractor to AECOM. A well inspection checklist was completed for each monitoring well sampled. Field forms are provided in Appendix A.

2.1 Groundwater Sampling

AECOM collected one round of samples from two wells installed for the off-site remedial investigation (MW1S and MW1D), six wells installed off-site in May 2010 (MW11S, MW11D, MW12S, MW12D, MW13S, and MW13D), and one well installed by Nassau County (NC-12). Well sampling forms showing compliance with EPA low-flow sampling procedures (EPA SOP, 1998) are provided in Appendix A. A bladder pump was used for sampling. The pump intake was set at the midpoint of the screened interval. Dedicated Teflon-lined tubing was used for all groundwater sample collection. Field measurements recorded during purging include flow rate, depth to water, temperature, pH, conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP) and turbidity. The measurements were recorded on a well sampling form. Measurements were collected approximately every five minutes. A flow-through cell was used to measure the parameters. Purging was considered complete when the indicator parameters stabilized over three consecutive readings. If the groundwater parameters did not stabilize, the samples were collected after two hours of purging. Stabilization parameters are:

- depth to water: less than 0.3 ft drawdown during purging;
- pH: ± 0.1
- conductivity: ± 3%
- DO: ± 10 % or less than 5 mg/L
- ORP: ±10 mV and
- Turbidity: ± 10 % or less than 5 (NTU)
- Temperature: ± 3 %.

During sample collection, the flow cell was disconnected and the sample tubing discharge was poured directly into the laboratory supplied sample containers and field vials. Water samples were collected in pre-preserved bottles provided by the laboratory, cooled to 4ºC after collection, and shipped to the subcontract laboratory for analysis of VOCs, dissolved iron (field filtered), sulfates, nitrates, carbon dioxide, and methane. All parameters other than VOCs are referred to as monitored natural attenuation (MNA) parameters. Analyses were performed by Pace Analytical Services, Inc. (formerly H2M Labs, Inc.), Melville, New York, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified lab (ELAP ID 10478).

A round of water table elevation data for the monitoring wells was collected on June 3, 2014, prior to groundwater sampling. All wells were sampled on June 3, 2014 except MW13D and MW13S which were sampled on June 4, 2014. The results are presented in Table 2. Groundwater elevations are

shown on Figure 3 for the shallow wells and Figure 4 for the deep wells. The groundwater flow direction appears to be to the southwest.

3.0 Laboratory Analytical Results

3.1 Groundwater Samples

3.1.1 VOC Data

Groundwater samples were collected from nine wells and submitted for the following analyses: VOCs (EPA SW-846 Method 8260), dissolved iron (EPA SW-846 Method 6010B), sulfates (EPA 300.0), nitrates (EPA 353.2), carbon dioxide (EPA SM4500CO2 D), dissolved oxygen (EPA 360.2), and methane (EPA RSK-175). The VOC groundwater results are compared to the NYS Class GA groundwater criteria and presented in Table 3. VOC detections are summarized on Figure 5. A summary of concentrations exceeding the NYS Class GA groundwater criteria are provided below:

- Tetrachloroethene (PCE) was detected in all wells except NC-12. The concentrations exceed the NYS Class GA criterion of 5 µg/L in three of the nine wells with concentrations of 8 µg/L (MW11D) and 13 µg/L (MW13S and MW-1D);
- Trichloroethene (TCE) was detected in wells MW11D, MW13S, and MW13D, and MW-1D. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW13S (12 µg/L), MW13D (30 µg/L), and MW1D (77 µg/L);
- Cis-1,2-dichloroethene (cis-1,2-DCE) was detected in all wells except MW12S, MW12D, and NC-12. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW13S (30 µg/L) and MW1D (6 µg/L).
- Trans-1,2-dichloroethene was not detected in any of the wells;
- 1,1-Dichloroethene (1,1-DCE) was detected in MW11D, MW12D, MW13S, MW13D, and MW1D. The concentration exceeds the NYS Class GA criterion of 5 µg/L in MW1D (15 µg/L);
- 1,1,1-Trichloroethane (1,1,1-TCA) was detected in four of the wells. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW13S (8 µg/L) and MW1D (6 µg/L); and,
- 1,1-Dichloroethane (1,1-DCA) was detected in two of the wells. The concentration exceeds the NYS Class GA criterion of 5 µg/L in MW13S (18 µg/L).

The VOC concentrations for parameters with exceedances of the NY Class GA criteria are presented over time in Figure 6. Groundwater samples collected from monitoring wells MW1S and MW1D in 2005 for the remedial investigation (ERM, 2005) are also included. The concentrations were compared as follows:

- Shallow well concentration differs from the deeper well concentration by more than 5 µg/L;
- The concentration differs from the previous year by more than 5 µg/L; and,
- The concentration in the well is greater than the NY Class GA criterion (5 µg/L for each parameter) or greater than twice the NY Class GA criterion.

A description of the data collected in 2014 compared to data collected in 2013 is provided below.

For wells MW11S and MW11D, the current PCE concentration in the deep well is more than 5 µg/L higher than in the shallow well. The PCE concentration in MW11D is greater than the NY Class GA criterion of 5 µg/L (8 µg/L). The PCE concentration in MW11D decreased in 2014 compared to the concentration in 2013. No other parameters have exceedances in these wells in 2013 and 2014.

For wells MW12S and MW12D, the 2013 and 2014 concentrations are below the NY Class GA criteria.

For wells MW13S and MW13D, the TCE concentration in the deep well is more than 5 µg/L higher than in the shallow well, and the TCE concentrations in both wells are greater than twice the NY Class GA criterion. The TCE concentrations in the shallow and deep wells decreased more than 5 µg/L over the 2013 level. The PCE, cis-1,2-DCE, and 1,1-DCA concentrations in the shallow well are more than 5 µg/L higher than in the deep well and are greater than twice the NY Class GA criteria. The cis-1,2-DCE concentration in the shallow well has increased more than 5 µg/L above the 2013 levels. The 1,1,1-TCA concentration in the shallow well is more than 5 µg/L higher than in the deep well and greater than the NY Class GA criteria.

For wells MW1S and MW1D, the concentrations are lower in the shallow well than in the deeper well by more than 5 µg/L for PCE, TCE, and 1,1-DCE. Concentrations are greater than twice the NY Class GA criterion of 5 µg/L for PCE, TCE, and cis-1,2-DCE in MW1D. Concentrations are greater than the NY Class GA criterion of 5 µg/L for cis-1,2-DCE, and 1,1-DCA in MW1D. The concentrations of PCE, TCE, and 1,1-DCE declined between 2013 and 2014 in well MW1D by more than 5 µg/L.

For NC-12, there were no VOC detections in 2013 or 2014.

The groundwater concentrations generally appear to be stabilizing over time. With the exception of cis-1,2-DCE in MW13S, all concentrations are within 5 µg/L of the 2013 levels or have declined by more than 5 µg/L. There were no exceedances of criteria in MW-11S, MW12S, MW12D, MW1S or NC-12 in 2013 and 2014. Concentrations of PCE, TCE, and 1,1-DCE have declined in MW1D since 2013. The VOC concentrations in MW13S and MW13D which are located farther to the west are still elevated and increasing in the shallow well for cis-1,2-DCE, but decreased in the shallow and deep wells for TCE.

3.1.2 MNA Data

The results for laboratory MNA parameters are provided in Table 4. The final field measurements of temperature and dissolved oxygen are also listed. The data were evaluated to determine whether reductive dechlorination is occurring.

Biologically-mediated reductive dechlorination of chlorinated VOCs occurs through a series of progressive biochemical reactions where chloride atoms are replaced by hydrogen atoms.

PCE → TCE → DCE → vinyl chloride → ethene

1,1,1-TCA → 1,1-DCA → chloroethane → ethane

Naturally occurring bacteria create hydrogen under reducing conditions that replaces chlorine to sequentially dechlorinate the chlorinated ethenes. These biologically-mediated reactions occur favorably in anaerobic (negligible dissolved oxygen), reducing (oxidation reduction potential or ORP is less than -75 mV), and circumneutral (pH between 6.0 and 8.5) groundwater.

For microbial-mediated reactions, aerobic reactions are the most energetically favorable. As dissolved oxygen is consumed, microbes use electron acceptors in the order of reducing energy efficiencies (denitrification of nitrate, manganese reduction, ferric iron reduction, sulfate reduction,

carbon dioxide in methanogenesis). Biotic reductive dechlorination typically occurs most favorably in the ORP range needed for sulfate reduction or methanogenesis (i.e., below -100 mV).

- pH: Water quality measurements indicate that the groundwater is slightly acidic (pH 5.02 to 6.71), and eight of the nine wells sampled have pH values less than pH 6.0. The low pH values observed are below the range indicated above and would limit biological natural attenuation processes.
- ORP and Dissolved Oxygen: Water quality measurements collected in real time during the field sampling indicate that the groundwater is generally aerobic (ORP 180 to 303 mV and dissolved oxygen between 4.76 and 8.83 mg/L) in eight out of nine wells. Biotic reductive dechlorination does not occur favorably under these observed aerobic conditions. Monitoring wells MW-13D had a DO concentration suggestive of an anaerobic environment at 0.13 mg/L.
- Nitrate was detected in all nine wells sampled (0.67 mg/L to 6.82 mg/L). Under the anaerobic conditions required for reductive dechlorination, nitrate would not be expected to be present due to conversion to ammonia through denitrification. Nitrate concentrations have been relatively stable from 2010 to 2014.
- Dissolved Iron: An increase in dissolved ferrous iron (Fe II) may indicate reducing conditions and the reduction of insoluble ferric iron (Fe III) by serving as an electron acceptor. Total dissolved iron was detected at very low concentrations (<1 mg/L) in all of the nine monitoring wells.
- Sulfate was detected in all nine wells sampled (10.5 mg/L to 86.1 mg/L). Under the anaerobic conditions required for reductive dechlorination, sulfate reducing bacteria would convert sulfate to sulfide. Sulfate concentrations have been relatively stable from 2010 to 2014.
- Methane is a byproduct of microbial degradation using carbon dioxide as an electron acceptor, and the presence of methane is an indicator of reducing conditions in groundwater. Methane was not detected in any of the nine monitoring wells sampling in June 2014.
- Carbon dioxide: An increase in carbon dioxide may provide an indication of microbial processes. Carbon dioxide was detected in all wells with concentrations ranging from 10,600 µg/L to 36,100 µg/L. However, aerobic conditions suggest that aerobic bacteria are generating this carbon dioxide.
- Daugher products are another indicator of reductive dechlorination processes, and increases in daughter products accompany decreases in parent VOCs as shown in the reactions above (i.e., increase in cis-1,2-DCE as TCE decreases). In addition, 1,1-DCA is an abiotic breakdown product of 1,1,1-TCA. Concentrations of TCE and 1,2-DCE were detected in four of the nine monitoring wells. Concentrations of 1,1-DCA were detected in two of the nine monitoring wells. Daughter products of both PCE and 1,1,1-TCA have been relatively stable over time. In addition, chloroethane and vinyl chloride were not detected.

The concentrations for 2010 through 2014 are shown over time for VOCs exceeding the NYS Class GA Groundwater Criteria in Figure 6 and for methane, carbon dioxide, sulfate, nitrate, dissolved oxygen in Figure 7. From the evaluation of MNA analyses and water quality parameters in this section, there is no evidence suggesting that biological reductive dechlorination is occurring in site groundwater for the majority of the monitoring wells. Monitoring well MW-13D is the only well that indicates a more favorable environment for microbial reductive dechlorination to occur based on biogeochemical parameters (DO, pH). However, increasing degradation of PCE in this well may be inhibited due to a prevailing aerobic and acidic environment. The overall biogeochemical environment in all other wells tends to favor aerobic bacteria. Reductions in concentrations of VOCs are mostly likely the result of dilution and dispersion and to a lesser extent sorption and volatilization. For

bioremediation of site VOCs to occur, the pH would need to be raised to circumneutral levels and groundwater would need to become more reducing.

4.0 Data Validation

Data validation was provided by Environmental Data Services, Inc. (EDS) of Williamsburg, Virginia, an independent chemist under subcontract to AECOM. Data usability summary reports (DUSRs) for each sample delivery group (SDG) are included in Appendix B.

Groundwater data from samples collected in June 2014 were reported by Pace Analytical Services, Inc., Melville, New York as one SDG, AECOM233. A total of 14 analyses were validated, including one trip blank, one storage blank, one MS/MSD pair, one field duplicate, and nine environmental samples.

AECOM233: There were minor rejections of data. These data cannot be used in the decision-making process for this project: 1,2-dibromo-3-chloropropane was rejected in all samples due to a low continuing calibration relative response factor value.

Overall, the remaining data are acceptable for the intended purposes as qualified for the following deficiencies:

- Seven compounds (bromomethane, 1,1-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, 1,1,1-trichloroethane, cis-1,3-dichloropropene, and tetrachloroethene) were qualified as estimated in one sample due to high matrix spike/matrix spike duplicate values.

- Seven compounds (bromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, 1,2-dibromo-3-chloropropane, and 1,2,4-trichlorobenzene) were qualified as estimated in all samples due to high continuing calibration percent difference values.

5.0 Conclusions and Recommendations

Groundwater sampling was performed at the Utility Manufacturing site in Westbury, NY with field work conducted in June 2014. A summary of the sampling effort is provided below:

- The groundwater flow direction appears to be to the southwest.
- The groundwater concentrations generally appear to be stabilizing over time. With the exception of cis-1,2-DCE in MW13S, all concentrations are within 5 µg/L of the 2013 levels or have declined by more than 5 µg/L. There were no exceedances of criteria in MW-11S, MW12S, MW12D, MW1S or NC-12 in 2013 and 2014.
- Review of the MNA and VOC data indicate that natural attenuation is occurring primarily through dilution and dispersion and to a lesser extent sorption and volatilization.
- Continued annual groundwater monitoring is recommended due to detections of VOCs in the June 2014 samples exceeding the NYS Class GA groundwater criteria.

6.0 References

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Table 1
Well Construction Data

Well Number	Northing	Easting	Ground Elevation	Top of Casing Elevation	Total Depth of Well
MW-1D	214,707.10	1,106,646.90	120.18	119.77	130
MW-1S	214,708.46	1,106,651.34	120.28	119.82	90
MW-11D	214,701.44	1,106,744.20	119.77	119.51	124
MW-11S	214,706.18	1,106,741.07	119.96	119.66	95
MW-12D	214,675.55	1,106,597.69	118.56	118.26	125
MW-12S	214,670.11	1,106,598.27	118.51	117.88	95
MW-13D	214,630.74	1,106,353.23	116.82	116.41	126
MW-13S	214,625.69	1,106,354.25	116.66	116.32	96
MW-02	215,480.78	1,106,935.05	123.48	122.49	58
NC-12	214,665.28	1,107,007.09	121.9	121.1	54

Notes:
All elevations and depths are in feet.
Vertical datum: NAVD88
Horizontal datum: NY State Plane NAD83

Table 2
Groundwater Elevations

Well Number	Top of Inner Casing	Depth To Water 5/12/10	Groundwater Elevation 5/12/10	Depth To Water 8/9/11	Groundwater Elevation 8/9/11	Depth To Water 4/24/12	Groundwater Elevation 4/24/12	Depth To Water 6/20/13	Groundwater Elevation 6/20/13	Depth To Water 6/3/14	Groundwater Elevation 6/3/14
MW-1D	119.77	42.4	77.37	45.59	74.18	43.84	75.93	44.06	75.71	46.52	73.25
MW-1S	119.82	41.85	77.97	45.58	74.24	43.82	76.00	44.05	75.77	46.38	73.44
MW-11D	119.51	42.74	76.77	46.65	72.86	44.7	74.81	44.95	74.56	47.36	72.15
MW-11S	119.66	42.76	76.90	46.5	73.16	44.66	75.00	45.01	74.65	47.37	72.29
MW-12D	118.26	41.47	76.79	45.25	73.01	43.52	74.74	43.76	74.50	45.6	72.66
MW-12S	117.88	41.08	76.80	44.82	73.06	43.12	74.76	43.38	74.50	46.1	71.78
MW-13D	116.41	39.74	76.67	43.5	72.91	41.81	74.6	42.1	74.31	44.35	72.06
MW-13S	116.32	39.68	76.64	43.4	72.92	41.73	74.59	42.05	74.27	44.27	72.05
MW-02	122.49	NM	NM	NM	NM	NM	NM	46.28	76.21	NM	NM
NC-12	121.1	NM	NM	NM	NM	NM	NM	45.25	75.85	47.6	73.5

Notes:
All elevations and depths are in feet.
Vertical datum: NAVD88
NM - No measurement

Table 3
VOCs in Groundwater

	NYS	MW11S					(dup)	MW11D			(dup)	MW11D	
Units: µg/L	Class GA	5/12/2010	10/3/2011	4/24/2012	6/20/2013	6/3/2014	6/3/2014	5/12/2010	10/3/2011	4/24/2012	4/24/2012	6/20/2013	6/3/2014
1,1,1-Trichloroethane	5	1 U	**0.78** J	1 UJ	5 U	5 U	5 U	**1.8**	**2.1**	**0.82** J	**1**	**1** J	5 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	5 U	5 UJ	5 UJ	1 U	1 U	1 U	1 U	5 U	5 UJ
1,1,2-Trichloroethane	1	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	5	1 U	1 U	1 U	5 U	5 U	5 U	**2.5**	**3**	**1.6**	**2**	**2** J	**2** J
1,1-Dichloroethene	5	1 U	1 U	1 U	5 U	5 U	5 U	**4**	**5.2**	**2**	**2.5**	**3** J	**2** J
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	5 UJ	5 UJ	5 UJ	1 U	1 U	1 U	1 UJ	5 UJ	5 UJ
1,2-Dibromo-3-chloropropane	0.04	1 U	1 UJ	1 U	5 UJ	R	R	1 U	1 UJ	1 U	1 U	5 UJ	R
1,2-Dibromoethane (EDB)	5	1 U	1 U	1 U	5 U	5 UJ	5 UJ	1 U	1 U	1 U	1 U	5 U	5 UJ
1,2-Dichlorobenzene	3	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,2-Dichloroethene, Total	5	2 U	1 U	NA	**3**	**1.5**	**1.7**	**1.2** J	**1.9**	NA	NA	**1**	**1.4**
1,2-Dichloropropane	1	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	5 UJ	5 U	5 U	1 U	1 U	1 U	1 U	5 UJ	5 U
2-Butanone (MEK)	5	5 U	R	5 U	5 UJ	5 UJ	5 UJ	5 UJ	R	5 U	5 R	5 UJ	5 UJ
2-Hexanone	5	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ
4-Methyl-2-pentanone (MIBK)	5	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ
Acetone	5	5 U	R	R	5 UJ	5 U	5 U	**4.8** J	R	R	R	5 UJ	5 U
Benzene	1	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Bromodichloromethane	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Bromoform	5	1 U	1 UJ	1 U	5 U	5 U	5 U	1 UJ	1 UJ	1 U	1 U	5 U	5 U
Bromomethane	5	1 UJ	1 U	1 U	5 UJ	5 UJ	5 UJ	1 U	1 U	1 U	1 U	5 UJ	5 UJ
Carbon disulfide	60	1 U	1 UJ	1 U	5 U	5 U	5 U	1 U	1 UJ	1 U	1 U	5 U	5 U
Carbon Tetrachloride	5	1 U	1 U	1 UJ	5 U	5 U	5 U	1 U	1 U	1 UJ	1 U	5 U	5 U
Chlorobenzene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chlorodibromomethane	NA	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chloroethane	5	1 U	1 U	1 U	5 UJ	5 U	5 U	1 U	1 U	1 U	1 U	5 UJ	5 U
Chloroform	7	1 U	1 UJ	1 U	5 U	5 U	5 U	1 U	1 UJ	1 U	1 U	5 U	5 U
Chloromethane	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	**3** J	**1** J	**2** J	**1.2**	**1.9**	**1.1**	**1.2**	**1** J	**1** J

Table 3
VOCs in Groundwater

	NYS	MW11S					(dup)	MW11D			(dup)	MW11D	
Units: µg/L	Class GA	5/12/2010	10/3/2011	4/24/2012	6/20/2013	6/3/2014	6/3/2014	5/12/2010	10/3/2011	4/24/2012	4/24/2012	6/20/2013	6/3/2014
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Cyclohexane	NA	1 U	1 U	1 UJ	5 U	5 U	5 U	1 U	1 U	1 UJ	1 U	5 U	5 U
Dichlorodifluoromethane	5	1 U	1 U	1 UJ	5 U	5 U	5 U	1 U	1 U	1 UJ	1 U	5 U	5 U
Ethylbenzene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Isopropylbenzene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Methyl Acetate	NA	1 U	1 U	1 UJ	5 U	5 U	5 U	1 UJ	1 U	1 UJ	1 U	5 U	5 U
Methyl tert-Butyl Ether	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Methylcyclohexane	NA	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Methylene Chloride	5	1 U	1 U	1 UJ	5 U	5 U	5 U	1 U	1 U	1 UJ	1 U	5 U	5 U
Styrene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Tetrachloroethene (PCE)	5	**8.7**	**5.5** J	**4.7**	**4** J	**2** J	**2** J	**8.1**	**17** J	**9**	**8**	**14**	**8**
Toluene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Trichloroethene (TCE)	5	1 U	**0.71** J	1 UJ	5 U	5 U	5 U	3 U	**5.3**	**2.4** J	**2.6**	**4** J	**3** J
Trichlorofluoromethane	5	1 U	1 U	1 U	5 UJ	5 U	5 U	1 U	1 U	1 U	1 U	5 UJ	5 U
Vinyl chloride	2	1 U	1 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Xylenes, total	5	2 U	2 U	2 U	5 U	5 U	5 U	2 U	2 U	2 U	2 U	5 U	5 U

U-Not detected
J-Estimated
R-Rejected
Detections are in bold text.
Exceedances are highlighted

Table 3
VOCs in Groundwater

	NYS	MW12S	(dup)	MW-12S				MW12D	MW12D				MW13S
Units: µg/L	Class GA	5/11/2010	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010
1,1,1-Trichloroethane	5	1 U	1 U	5 U	1 UJ	5 U	5 U	**8.8**	**0.91** J	**1.1** J	**2** J	**1** J	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	5 U	1 U	5 U	5 UJ	1 U	5 U	1 U	5 U	5 UJ	1 U
1,1,2-Trichloroethane	1	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
1,1,2-Trichlorotrifluoroethane	5	1 U	1 U	5 U	1 U	NA	NA	**2.2**	5 U	1 U	NA	NA	1 U
1,1-Dichloroethane	5	1 U	1 U	5 U	1 U	5 U	5 U	**2.4**	5 U	1 U	5 U	5 U	1 U
1,1-Dichloroethene	5	1 U	1 U	5 U	1 U	5 U	5 U	**17**	**1.5** J	1 U	**4** J	**1** J	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	5 U	1 U	5 UJ	5 UJ	1 U	5 U	1 U	5 UJ	5 UJ	1 U
1,2-Dibromo-3-chloropropane	0.04	1 UJ	1 U	5 UJ	1 U	5 UJ	R	1 U	5 UJ	1 U	5 UJ	R	1 UJ
1,2-Dibromoethane (EDB)	5	1 U	1 U	5 U	1 U	5 U	5 UJ	1 U	5 U	1 U	5 U	5 UJ	1 U
1,2-Dichlorobenzene	3	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
1,2-Dichloroethene, Total	5	**15**	**15**	**2.2** J	NA	5 U	5 U	**1.8** J	5 U	NA	5 U	5 U	**0.74** J
1,2-Dichloropropane	1	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	5 U	1 U	5 UJ	5 U	1 U	5 U	1 U	5 UJ	5 U	1 U
2-Butanone (MEK)	5	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 U	5 UJ	5 U	5 UJ	5 UJ	5 U
2-Hexanone	5	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ	5 U
4-Methyl-2-pentanone (MIBK)	5	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ	5 U
Acetone	5	5 U	5 U	R	R	5 UJ	5 U	5 U	R	R	5 UJ	5 U	5 U
Benzene	1	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Bromodichloromethane	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Bromoform	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Bromomethane	5	1 U	1 UJ	5 U	1 U	5 UJ	5 UJ	1 UJ	5 U	1 U	5 UJ	5 UJ	1 U
Carbon disulfide	60	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Carbon Tetrachloride	5	1 U	1 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	1 U
Chlorobenzene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Chlorodibromomethane	NA	1 UJ	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 UJ
Chloroethane	5	1 U	1 U	5 U	1 U	5 UJ	5 U	1 U	5 U	1 U	5 UJ	5 U	1 U
Chloroform	7	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Chloromethane	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
cis-1,2-Dichloroethene	5	**15**	**15**	**2.2** J	**1.7**	5 U	5 U	**1.8**	5 U	1 U	5 U	5 U	1 U

Table 3
VOCs in Groundwater

	NYS	MW12S	(dup)	MW-12S				MW12D	MW12D				MW13S
Units: µg/L	Class GA	5/11/2010	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010
cis-1,3-Dichloropropene	0.4	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Cyclohexane	NA	1 U	1 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	1 U
Dichlorodifluoromethane	5	1 UJ	1 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	1 UJ
Ethylbenzene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Isopropylbenzene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Methyl Acetate	NA	1 U	1 U	5 UJ	1 UJ	5 U	5 U	1 U	5 UJ	1 UJ	5 U	5 U	1 U
Methyl tert-Butyl Ether	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Methylcyclohexane	NA	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Methylene Chloride	5	1 U	1 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	1 U
Styrene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Tetrachloroethene (PCE)	5	**10**	**10**	**18**	**21**	**5**	**1** J	**7.1**	**1.8** J	**2.6**	**3** J	**2** J	**1.2**
Toluene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
trans-1,3-Dichloropropene	0.4	1 UJ	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 UJ
Trichloroethene (TCE)	5	**2.5**	**2.4**	**1.9** J	**3** J	**2** J	5 U	**25**	**1.4** J	**1.6** J	**3** J	5 U	**1.7**
Trichlorofluoromethane	5	1 UJ	1 U	5 U	1 U	5 UJ	5 U	1 U	5 U	1 U	5 UJ	5 U	1 UJ
Vinyl chloride	2	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U
Xylenes, total	5	2 U	2 U	5 U	2 U	5 U	5 U	2 U	5 U	2 U	5 U	5 U	2 U

Table 3
VOCs in Groundwater

	NYS	MW13S	(dup)	MW13S			MW13D					MW1S	
Units: µg/L	Class GA	8/9/2011	8/9/2011	4/24/2012	6/20/2013	6/4/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/4/2014	4/5/2005	5/12/2010
1,1,1-Trichloroethane	5	**2.1** J	**1.8** J	**2.5** J	**6**	**8** J	**4.2**	**4.7** J	**3.1** J	**2** J	**2** J	**3.6**	1 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	1 U	5 U	5 UJ	1 U	5 U	1 U	5 U	5 UJ	0.5 U	1 U
1,1,2-Trichloroethane	1	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
1,1,2-Trichlorotrifluoroethane	5	5 U	5 U	1 U		NA	**1.2**	5 U	1 U	NA	NA	0.5 U	1 U
1,1-Dichloroethane	5	**4.2** J	**3.6** J	**5.3**	**15**	**18** J	**1.2**	**0.72** J	**0.63** J	5 U	5 U	**0.9**	1 U
1,1-Dichloroethene	5	**0.82** J	**0.74** J	1 U	**2** J	**2** J	**7**	**5.6**	**3.8**	**5**	**3** J	**1.4**	1 U
1,2,4-Trichlorobenzene	5	5 U	5 U	1 U	5 UJ	5 UJ	1 U	5 U	1 U	5 UJ	5 UJ	0.5 U	1 U
1,2-Dibromo-3-chloropropane	0.04	5 UJ	5 UJ	1 U	5 UJ	R	1 UJ	5 UJ	1 U	5 UJ	R	0.5 U	1 U
1,2-Dibromoethane (EDB)	5	5 U	5 U	1 U	5 U	5 UJ	1 U	5 U	1 U	5 U	5 UJ	0.5 U	1 U
1,2-Dichlorobenzene	3	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
1,2-Dichloroethane	0.6	5 U	5 U	1 U	5 U	5 U	**0.58** J	5 U	1 U	5 U	5 U	0.5 U	1 U
1,2-Dichloroethene, Total	5	**6.1**	**5.3**	NA	**24**	**31** J	**17**	**8.5**	NA	**8**	**3.6**	NA	**18**
1,2-Dichloropropane	1	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
1,3-Dichlorobenzene	3	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
1,4-Dichlorobenzene	3	5 U	5 U	1 U	5 UJ	5 U	1 U	5 U	1 U	5 UJ	5 U	0.5 U	1 U
2-Butanone (MEK)	5	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 U	5 UJ	5 U	5 UJ	5 UJ	5 U	5 UJ
2-Hexanone	5	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ
4-Methyl-2-pentanone (MIBK)	5	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ
Acetone	5	R	R	R	5 UJ	5 U	5 U	R	R	5 UJ	5 U	5 U	**5** J
Benzene	1	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Bromodichloromethane	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Bromoform	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 UJ
Bromomethane	5	5 U	5 U	1 U	5 UJ	**2** J	1 U	5 U	1 U	5 UJ	5 UJ	0.5 U	1 U
Carbon disulfide	60	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Carbon Tetrachloride	5	5 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	0.5 U	1 U
Chlorobenzene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Chlorodibromomethane	NA	5 U	5 U	1 U	5 U	5 U	1 UJ	5 U	1 U	5 U	5 U	0.5 U	1 U
Chloroethane	5	5 U	5 U	1 U	5 UJ	5 U	1 U	5 U	1 U	5 UJ	5 U	0.5 U	1 U
Chloroform	7	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Chloromethane	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
cis-1,2-Dichloroethene	5	**6.1**	**5.3**	**7.9**	**24**	**30** J	**17**	**8.5**	**6.1**	**8**	**4** J	**84**	**18**

Table 3
VOCs in Groundwater

	NYS	MW13S	(dup)	MW13S			MW13D					MW1S	
Units: µg/L	Class GA	8/9/2011	8/9/2011	4/24/2012	6/20/2013	6/4/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/4/2014	4/5/2005	5/12/2010
cis-1,3-Dichloropropene	0.4	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Cyclohexane	NA	5 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	0.5 U	1 U
Dichlorodifluoromethane	5	5 U	5 U	1 UJ	5 U	5 U	1 UJ	5 U	1 UJ	5 U	5 U	0.5 U	1 U
Ethylbenzene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Isopropylbenzene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Methyl Acetate	NA	5 UJ	5 UJ	1 UJ	5 U	5 U	1 U	5 UJ	1 UJ	5 U	5 U	0.5 U	1 UJ
Methyl tert-Butyl Ether	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	**0.97**	1 U
Methylcyclohexane	NA	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Methylene Chloride	5	5 U	5 U	1 UJ	5 U	5 U	1 U	5 U	1 UJ	5 U	5 U	0.5 U	1 U
Styrene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Tetrachloroethene (PCE)	5	**3.5** J	**3.3** J	**5.5**	**14**	**13** J	**9.4**	**5.5**	**5.2**	**7**	**3** J	**220**	**8.9**
Toluene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
trans-1,2-Dichloroethene	5	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	**0.76**	1 U
trans-1,3-Dichloropropene	0.4	5 U	5 U	1 U	5 U	5 U	1 UJ	5 U	1 U	5 U	5 U	0.5 U	1 U
Trichloroethene (TCE)	5	**16**	**14**	**16** J	**22**	**12**	**200**	**88**	**60** J	**65**	**30**	**33**	3.1 U
Trichlorofluoromethane	5	5 U	5 U	1 U	5 UJ	5 U	1 UJ	5 U	1 U	5 UJ	5 U	0.5 U	1 U
Vinyl chloride	2	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U	0.5 U	1 U
Xylenes, total	5	5 U	5 U	2 U	5 U	5 U	2 U	5 U	2 U	5 U	5 U	0.5 U	2 U

Table 3
VOCs in Groundwater

	NYS	MW1S				MW1D			MW1D			NC-12	
Units: µg/L	Class GA	8/10/2011	4/24/2012	6/20/2013	6/3/2014	4/5/2005	5/12/2010	8/10/2011	4/24/2012	6/20/2013	6/3/2014	6/20/2013	6/3/2014
1,1,1-Trichloroethane	5	5 U	1 UJ	5 U	5 U	**17**	**15**	**3.7** J	**9.9** J	**9**	**6**	5 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	1 U	5 U	5 UJ	0.5 U	1 U	5 U	1 U	5 U	5 UJ	5 U	5 UJ
1,1,2-Trichloroethane	1	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
1,1,2-Trichlorotrifluoroethane	5	5 U	1 U	NA	NA	**1.7**	**3.5**	5 U	1 U	NA	NA	NA	NA
1,1-Dichloroethane	5	5 U	1 U	5 U	5 U	**4**	**4.3**	**2.2** J	**2.8**	**3** J	5 U	5 U	5 U
1,1-Dichloroethene	5	5 U	1 U	5 U	5 U	**22**	**30**	**4.3** J	**24**	**28**	**15**	5 U	5 U
1,2,4-Trichlorobenzene	5	5 U	1 U	5 UJ	5 UJ	0.5 U	1 U	5 U	1 U	5 UJ	5 UJ	5 UJ	5 UJ
1,2-Dibromo-3-chloropropane	0.04	5 UJ	1 U	5 UJ	R	0.5 U	1 U	5 UJ	1 U	5 UJ	R	5 UJ	R
1,2-Dibromoethane (EDB)	5	5 U	1 U	5 U	5 UJ	0.5 U	1 U	5 U	1 U	5 U	5 UJ	5 U	5 UJ
1,2-Dichlorobenzene	3	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	0.6	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene, Total	5	**20**	NA	**4**	**2.8**	NA	**4.4**	**5.7**	NA	**7**	**5.9**	5 U	5 U
1,2-Dichloropropane	1	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	3	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	3	5 U	1 U	5 UJ	5 U	0.5 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 U
2-Butanone (MEK)	5	5 UJ	5 U	5 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 UJ
2-Hexanone	5	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone (MIBK)	5	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ
Acetone	5	R	R	5 UJ	5 U	5 U	5 U	R	R	5 UJ	5 U	5 UJ	5 U
Benzene	1	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Bromodichloromethane	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Bromoform	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Bromomethane	5	5 U	1 U	5 UJ	5 UJ	0.5 U	1 UJ	5 U	1 U	5 UJ	5 UJ	5 UJ	5 UJ
Carbon disulfide	60	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 UJ	5 U
Carbon Tetrachloride	5	5 U	1 UJ	5 U	5 U	0.5 U	1 U	5 U	1 UJ	5 U	5 U	5 U	5 U
Chlorobenzene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Chlorodibromomethane	NA	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 UJ	5 U
Chloroethane	5	5 U	1 U	5 UJ	5 U	0.5 U	1 U	5 U	1 U	5 UJ	5 U	5 UJ	5 U
Chloroform	7	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Chloromethane	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5	**20**	**12**	**4** J	**3** J	**4.4**	**4.4**	**5.7**	**6.6**	**7**	**6**	5 U	5 U

Table 3
VOCs in Groundwater

	NYS	MW1S				MW1D			MW1D			NC-12	
Units: µg/L	Class GA	8/10/2011	4/24/2012	6/20/2013	6/3/2014	4/5/2005	5/12/2010	8/10/2011	4/24/2012	6/20/2013	6/3/2014	6/20/2013	6/3/2014
cis-1,3-Dichloropropene	0.4	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Cyclohexane	NA	5 U	1 UJ	5 U	5 U	0.5 U	1 U	5 U	1 UJ	5 U	5 U	5 UJ	5 U
Dichlorodifluoromethane	5	5 U	1 UJ	5 U	5 U	0.5 U	1 U	5 U	1 UJ	5 U	5 U	5 U	5 U
Ethylbenzene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Isopropylbenzene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Methyl Acetate	NA	5 UJ	1 UJ	5 U	5 U	0.5 U	1 U	5 UJ	1 UJ	5 U	5 U	5 UJ	5 U
Methyl tert-Butyl Ether	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Methylcyclohexane	NA	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 UJ	5 U
Methylene Chloride	5	5 U	1 UJ	5 U	5 U	0.5 U	1 U	5 U	1 UJ	5 U	5 U	5 U	5 U
Styrene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Tetrachloroethene (PCE)	5	**4.4** J	**5.5**	**4** J	**2** J	**8.6**	**18**	**6.6**	**24**	**26**	**13**	5 U	5 U
Toluene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Trichloroethene (TCE)	5	**2.2** J	**1.8** J	**2** J	5 U	**54**	**74**	**65**	**110** J	**110**	**77**	5 U	5 U
Trichlorofluoromethane	5	5 U	1 U	5 UJ	5 U	0.5 U	1 U	5 U	1 U	5 UJ	5 U	5 UJ	5 U
Vinyl chloride	2	5 U	1 U	5 U	5 U	0.5 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U
Xylenes, total	5	5 U	2 U	5 U	5 U	0.5 U	2 U	5 U	2 U	5 U	5 U	5 U	5 U

Table 4

MNA Parameters in Groundwater

ANALYTE	UNITS	NY Class GA	MW11S					MW11D					MW12S	(dup)	MW12S
			5/12/2010	10/3/2011	4/24/2012	6/20/2013	6/3/2014	5/12/2010	10/3/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010	5/11/2010	8/9/2011
Methane	µg/L	NA	1 U	**1.9**	**1.8**	1 U	1 U	**0.63** J	**1.7**	**13**	1 U	1 U	1 U	1 U	**0.61**
Carbon Dioxide	µg/L	NA	**5200**	**1750**	**2340**	**13200**	**10600**	**1000**	**7350**	**10300**	**26400**	**25500**	**3500**	**3400**	**6400**
Sulfate	mg/L	250	**16.1** B	**12**	**23.5**	**44.6**	**38.3**	**28.4** B	**17**	**15.6**	**16.2**	**17.3**	**28.9**	**29**	**37**
Nitrogen, Nitrate	mg/L-N	10	**1.42**	**1.3** B	**2.3** D	**2.31** D	**2.04** D	**1.62**	**1.3** B	**1.2** D	**0.77**	**0.67** D	**2.97**	**2.97**	**4** B
Iron - Dissolved	mg/L	300	0.05 U	0.2 U	**0.05** B	**0.04** B	**0.02** B	0.05 U	0.2 U	**0.23**	**0.35**	**0.01** B	0.05 U	0.05 U	0.2 U
Dissolved Oxygen															
Laboratory	mg/L	NA	**10.5**	**33.6**	**50.4**	**12.0**	**8.4**	**10.6**	**35.6**	**37.3**	**1.8**	**7.0**	**11.3**	**11.3**	**37.2**
Field	mg/L	NA	**9.7**	**13.4**	**14.0**	**6.7**	**7.8**	**3.8**	**3.1**	**2.8**	**0.7**	**8.6**	**10.1**	NA	**7.5**
Temperature															
Field	Celsius	NA	**14.4**	**17.9**	**11.7**	**22.2**	**16.2**	**13.3**	**19.0**	**15.9**	**18.9**	**20.5**	**15.8**	NA	**20.1**

U Not detected

J Concentrations are estimated.

D Dilution required due to high concentration of target analyte(s)

B Analyte was detected in the associated Method Blank

NA Not available

Detections are in bold text.

The field dissolved oxygen and temperature are the final readings collected during groundwater sampling.

Table 4

MNA Parameters in Groundwater

ANALYTE	UNITS	NY Class GA	'MW12S			MW12D					MW13S				
			4/24/2012	6/20/2013	6/3/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/3/2014	5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/4/2014
Methane	µg/L	NA	**1.8**	1 U	1 U	1 U	**0.63**	**1.6**	1 U	1 U	1 U	**0.63**	**2.0**	1 U	1 U
Carbon Dioxide	µg/L	NA	**3530**	**8800**	**35200**	**3500**	**2300**	**8150**	**13200**	**15800**	**17000**	**11000**	**12900**	**17600**	**34300**
Sulfate	mg/L	250	**47.6**	**39.2**	**41.2**	**46.8**	**25**	**29.3**	**22.8**	**20.1**	**47.9**	**28**	**39.5**	**31.2**	**33.2**
Nitrogen, Nitrate	mg/L-N	10	**3.77**	**2.68** D	**2.12** D	**3.38** D	**2.4** B	**2.59**	**2.57** D	**2.38** D	**3.81** D	**4.4** B	**5.34**	**4.44** D	**3.31** D
Iron - Dissolved	mg/L	300	0.2 U	**0.04** B	**0.02** B	0.05 U	0.2 U	0.2 U	**0.09** B	**0.01** B	0.05 U	0.2 U	0.2 U	**0.04** B	**0.01** B
Dissolved Oxygen															
Laboratory	mg/L	NA	**27.4**	**8.9**	**9.1**	**9.9**	**47.4**	**35.0**	**9.9**	**9.4**	**12.2**	**16.9**	**18.4**	**9.3**	**12.2**
Field	mg/L	NA	**12.7**	**3.3**	**6.5**	**9.9**	**15.8**	**8.3**	**8.3**	**4.8**	**10.1**	**7.5**	**10.7**	**8.0**	**8.8**
Temperature															
Field	Celsius	NA	**15.0**	**38.8**	**20.4**	**17.2**	**18.7**	**10.5**	**18.1**	**20.4**	**16.7**	**19.4**	**11.3**	**17.8**	**19.6**

Table 4

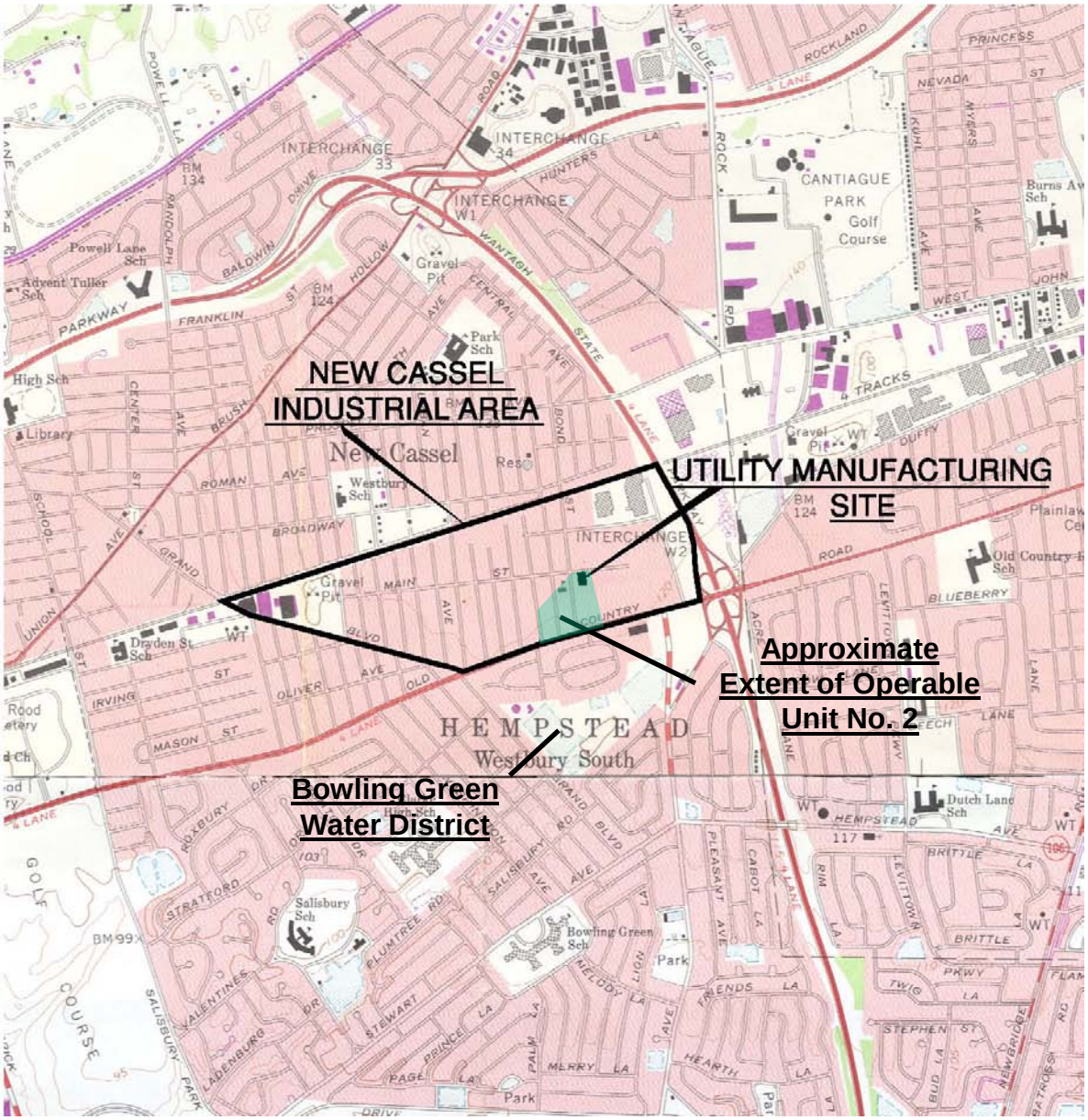
MNA Parameters in Groundwater

ANALYTE	UNITS	NY Class GA	MW13D					MW1S						MW1D	
			5/11/2010	8/9/2011	4/24/2012	6/20/2013	6/4/2014	5/12/2010	8/10/2011	4/24/2012	6/20/2013	6/20/2013	6/4/2014	5/12/2010	8/10/2011
Methane	µg/L	NA	1 U	**0.67**	**1.7**	1 U	1 U	1 U	**0.7**	**1.7**	1 U	1 U	1 U	1 U	**0.78**
Carbon Dioxide	µg/L	NA	**9000**	**13600**	**22400**	**30800**	**17600**	**7700**	**10400**	**8790**	**26400**	**13200**	**20200**	**15000**	**3860**
Sulfate	mg/L	250	**12.4**	**12**	**16.5**	**9.94**	**10.5**	**25.9** B	**13**	**18.6**	**25.4**	**44.4**	**37.1**	**24.4** B	**16**
Nitrogen, Nitrate	mg/L-N	10	**6.39** D	**4.6** B	**5.7**	**6.53** D	**6.82** D	**1.85**	**2.2** B	**2.6** D	**2.39** D	**2.27** D	**1.94** D	**2.8**	**2.5** B
Iron - Dissolved	mg/L	300	0.05 U	1.17 U	0.2 U	**0.04** B	**0.12**	0.05 U	0.2 U	**0.05** B	**0.05** B	**0.06** B	**0.02** B	**0.029** J	0.2 U
Dissolved Oxygen															
Laboratory	mg/L	NA	**9.3**	**16.0**	**52.3**	**5.5**	**1.0**	**6.6**	**25.2**	**48.4**	**8.1**	**11.4**	**12.1**	**4.2**	**38.0**
Field	mg/L	NA	**10.1**	**4.5**	**3.3**	**5.7**	**0.1**	**6.8**	**12.2**	**10.4**	**7.0**	NA	**8.2**	**0.6**	**16.8**
Temperature															
Field	Celsius	NA	**18.3**	**18.3**	**15.7**	**18.9**	**16.3**	**15.8**	**17.9**	**15.9**	**19.3**	NA	**22.8**	**15.2**	**20.8**

Table 4

MNA Parameters in Groundwater

ANALYTE	UNITS	NY Class GA	MW1D								NC-12			
			4/24/2012		6/20/2013		6/20/2013		6/4/2014		6/28/2013		6/4/2014	
Methane	µg/L	NA	**1.8**		1	U	1	U	1	U	1	U	1	U
Carbon Dioxide	µg/L	NA	**13000**		**35200**		**35200**		**22000**		**26400**		**36100**	
Sulfate	mg/L	250	**22.5**		**20**		**20**		**16.1**		**134**	D	**86.1**	D
Nitrogen, Nitrate	mg/L-N	10	**2.4**	D	**1.67**	D	**1.67**	D	**1.55**	D	**2.8**	D	**2.89**	D
Iron - Dissolved	mg/L	300	**0.036**	B	**0.20**		**0.20**		**0.18**		**0.11**		**0.02**	B
Dissolved Oxygen														
Laboratory	mg/L	NA	**18.3**		**2.3**		**2.3**		**7.5**		**8.0**		**8.6**	
Field	mg/L	NA	**2.3**		**1.1**		**1.1**		**8.4**		**8.08**		**6.3**	
Temperature														
Field	Celsius	NA	**16.4**		**17.7**		**17.7**		**23.2**		**18.9**		**20.7**	



From ERM (2005):
USGS Hicksville & Freeport NY Quadrangle, 1979

100 Red Schoolhouse Road, Suite B-1
Chestnut Ridge , NY 10977-6715

ENVIRONMENTAL CONSULTING ENGINEERS

AECOM

PROJECT:

SITE MANAGEMENT

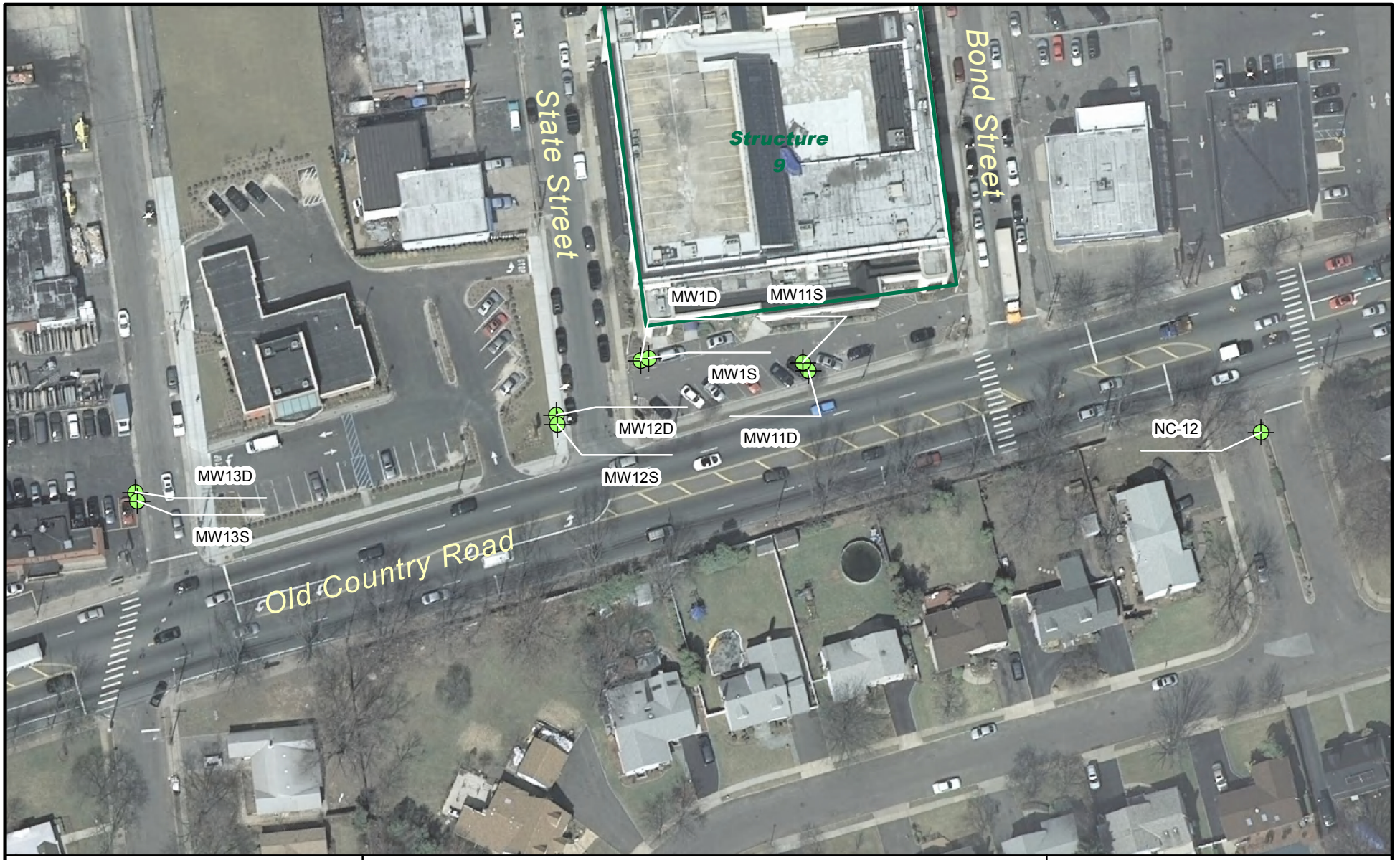
Utility Manufacturing/Wonder King, OU2
700 – 712 Main Street, Westbury, New York

SITE LOCATION MAP

Project No: 60269807

Figure No: 1

June 24, 2013



AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 20 40 80
Feet

Legend

- Monitoring Wells
- Indoor Air Sample Structures

Groundwater Sampling Locations

Project No: 60269807

Figure No: 2

June 24, 2013

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 37.5 75 150 Feet

Legend

Monitoring Wells

Indoor Air Sample Structures

Groundwater elevations are in NAVD88.

Groundwater Elevations
Shallow Wells - June 2014

Project No: 60269807

Figure No: 3

8/18/2014

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 15 30 60
Feet

Legend

Monitoring Wells

Indoor Air Sample Structures

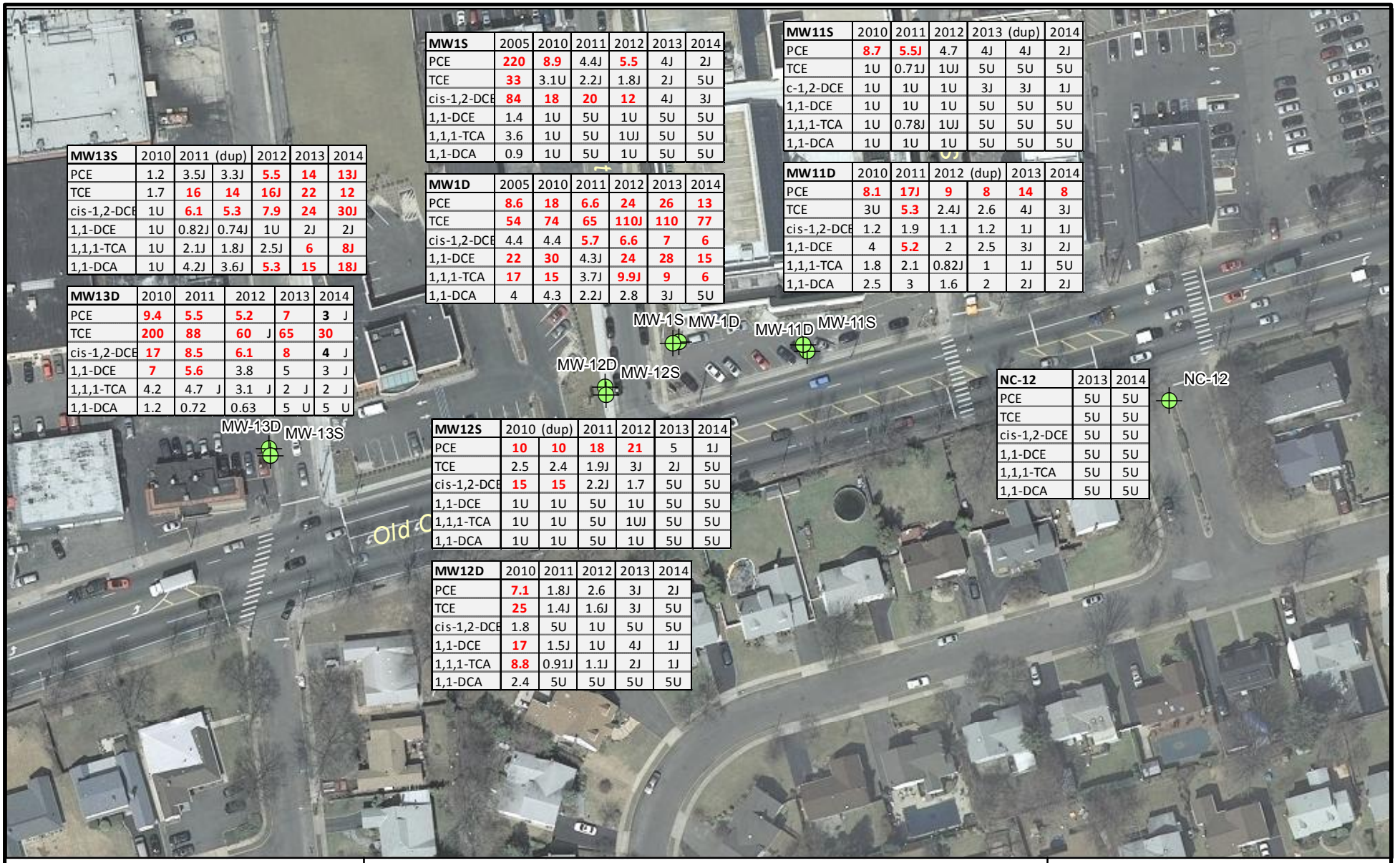
Groundwater elevations are in NAVD88.

Groundwater Elevations
Deep Wells - June 2014

Project No: 60269807

Figure No: 4

6/23/2014



MW13S	2010	2011 (dup)		2012	2013	2014
PCE	1.2	3.5J	3.3J	5.5	14	13J
TCE	1.7	16	14	16J	22	12
cis-1,2-DCE	1U	6.1	5.3	7.9	24	30J
1,1-DCE	1U	0.82J	0.74J	1U	2J	2J
1,1,1-TCA	1U	2.1J	1.8J	2.5J	6	8J
1,1-DCA	1U	4.2J	3.6J	5.3	15	18J

MW13D	2010	2011	2012	2013	2014
PCE	9.4	5.5	5.2	7	3 J
TCE	200	88	60 J	65	30
cis-1,2-DCE	17	8.5	6.1	8	4 J
1,1-DCE	7	5.6	3.8	5	3 J
1,1,1-TCA	4.2	4.7 J	3.1 J	2 J	2 J
1,1-DCA	1.2	0.72	0.63	5 U	5 U

MW1S	2005	2010	2011	2012	2013	2014
PCE	220	8.9	4.4J	5.5	4J	2J
TCE	33	3.1U	2.2J	1.8J	2J	5U
cis-1,2-DCE	84	18	20	12	4J	3J
1,1-DCE	1.4	1U	5U	1U	5U	5U
1,1,1-TCA	3.6	1U	5U	1UJ	5U	5U
1,1-DCA	0.9	1U	5U	1U	5U	5U

MW1D	2005	2010	2011	2012	2013	2014
PCE	8.6	18	6.6	24	26	13
TCE	54	74	65	110J	110	77
cis-1,2-DCE	4.4	4.4	5.7	6.6	7	6
1,1-DCE	22	30	4.3J	24	28	15
1,1,1-TCA	17	15	3.7J	9.9J	9	6
1,1-DCA	4	4.3	2.2J	2.8	3J	5U

MW12S	2010 (dup)		2011	2012	2013	2014
PCE	10	10	18	21	5	1J
TCE	2.5	2.4	1.9J	3J	2J	5U
cis-1,2-DCE	15	15	2.2J	1.7	5U	5U
1,1-DCE	1U	1U	5U	1U	5U	5U
1,1,1-TCA	1U	1U	5U	1UJ	5U	5U
1,1-DCA	1U	1U	5U	1U	5U	5U

MW12D	2010	2011	2012	2013	2014
PCE	7.1	1.8J	2.6	3J	2J
TCE	25	1.4J	1.6J	3J	5U
cis-1,2-DCE	1.8	5U	1U	5U	5U
1,1-DCE	17	1.5J	1U	4J	1J
1,1,1-TCA	8.8	0.91J	1.1J	2J	1J
1,1-DCA	2.4	5U	5U	5U	5U

MW11S	2010	2011	2012	2013 (dup)		2014
PCE	8.7	5.5J	4.7	4J	4J	2J
TCE	1U	0.71J	1UJ	5U	5U	5U
c-1,2-DCE	1U	1U	1U	3J	3J	1J
1,1-DCE	1U	1U	1U	5U	5U	5U
1,1,1-TCA	1U	0.78J	1UJ	5U	5U	5U
1,1-DCA	1U	1U	1U	5U	5U	5U

MW11D	2010	2011	2012 (dup)		2013	2014
PCE	8.1	17J	9	8	14	8
TCE	3U	5.3	2.4J	2.6	4J	3J
cis-1,2-DCE	1.2	1.9	1.1	1.2	1J	1J
1,1-DCE	4	5.2	2	2.5	3J	2J
1,1,1-TCA	1.8	2.1	0.82J	1	1J	5U
1,1-DCA	2.5	3	1.6	2	2J	2J

NC-12	2013	2014
PCE	5U	5U
TCE	5U	5U
cis-1,2-DCE	5U	5U
1,1-DCE	5U	5U
1,1,1-TCA	5U	5U
1,1-DCA	5U	5U

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 20 40 80
Feet

Legend

Monitoring Well

Concentrations exceeding the NYS Class GA criteria are in red.
Units: µg/L

The NYS Class GA criteria for all other parameters shown are 5 µg/L.

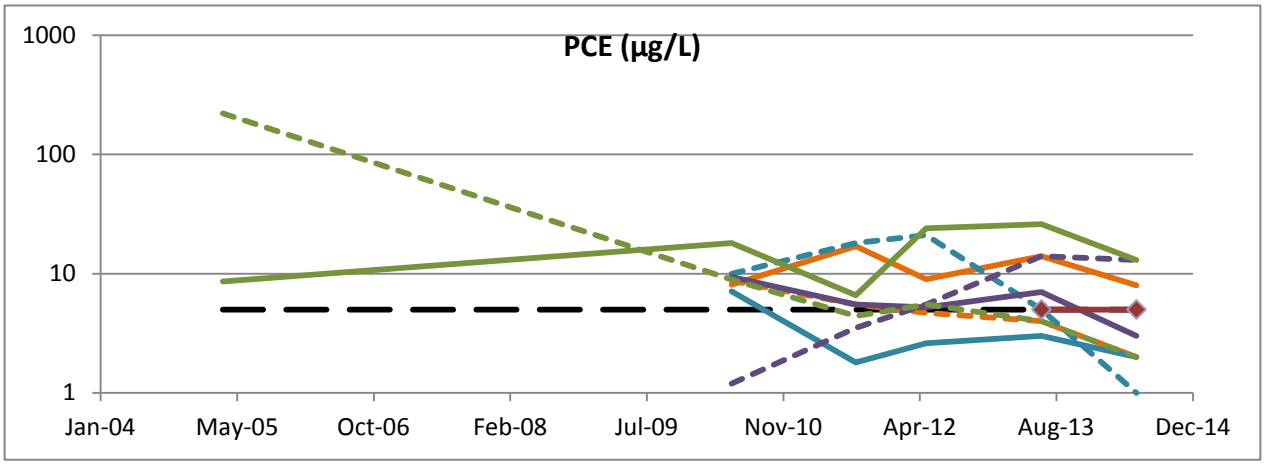
(dup) Environmental duplicate sample

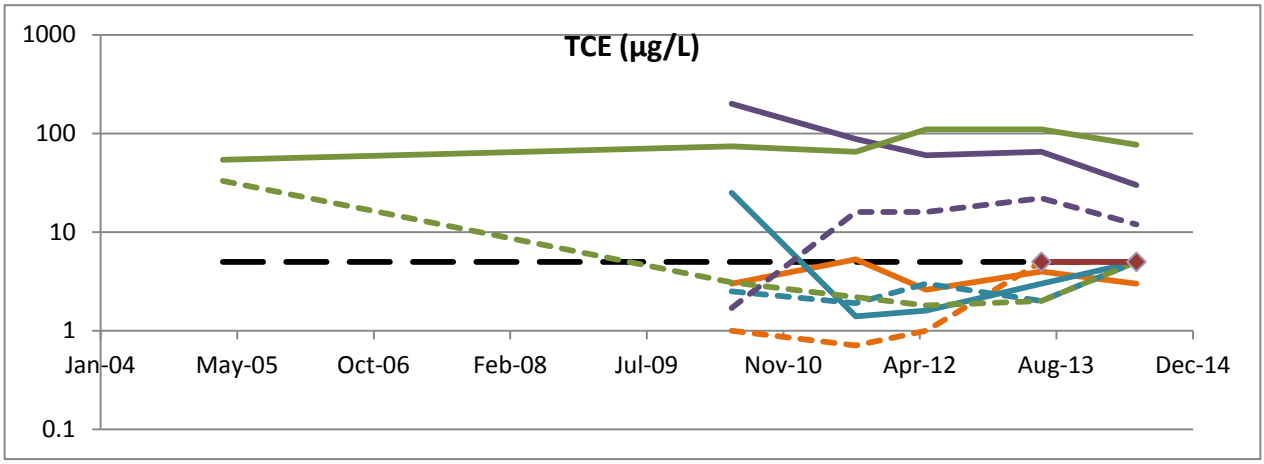
Groundwater Sampling Results

Project No: 60269807

Figure No: 5

9/22/2014





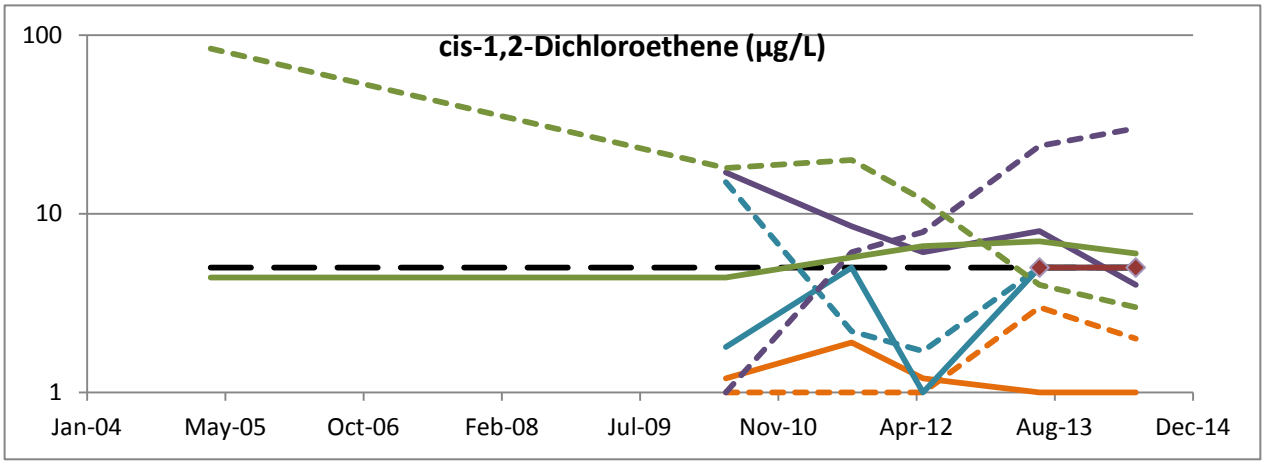
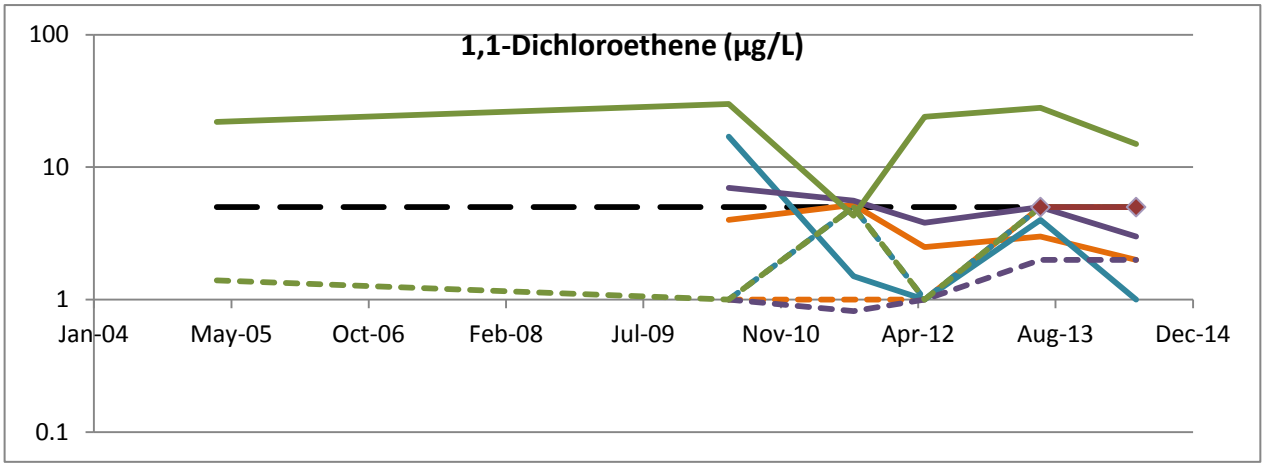


Figure 6

Groundwater VOC Concentrations over Time

Page 1 of 2



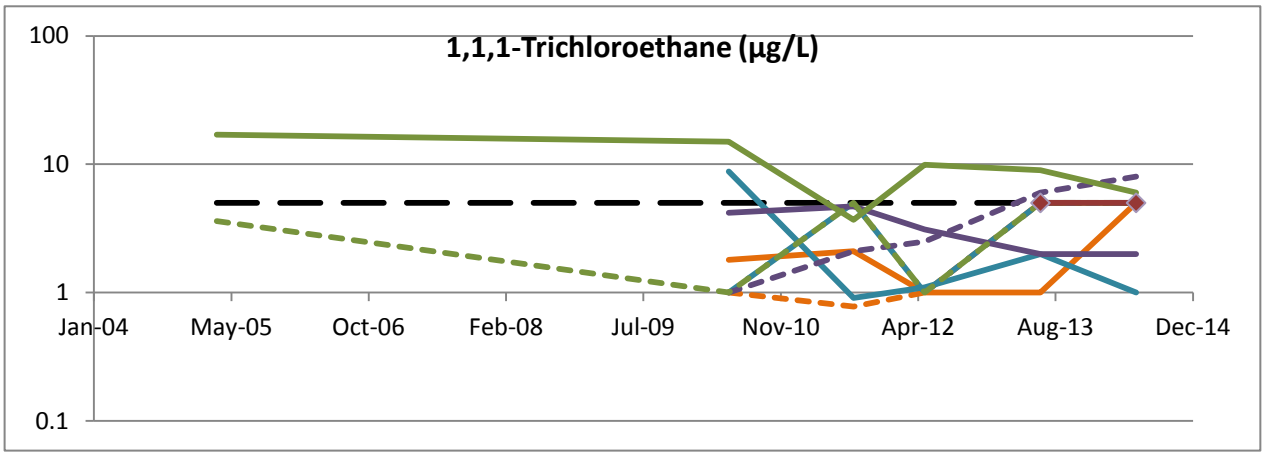
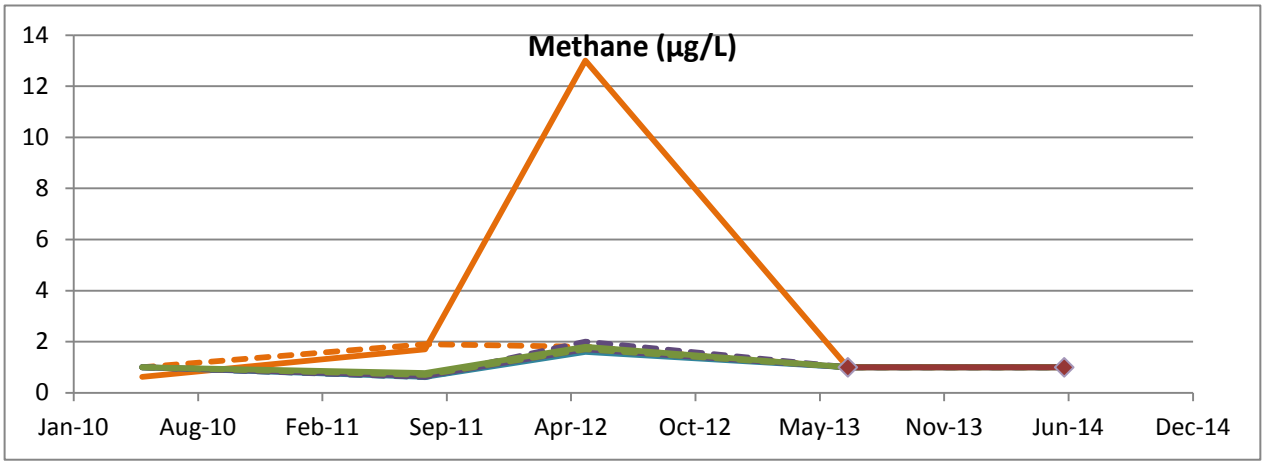


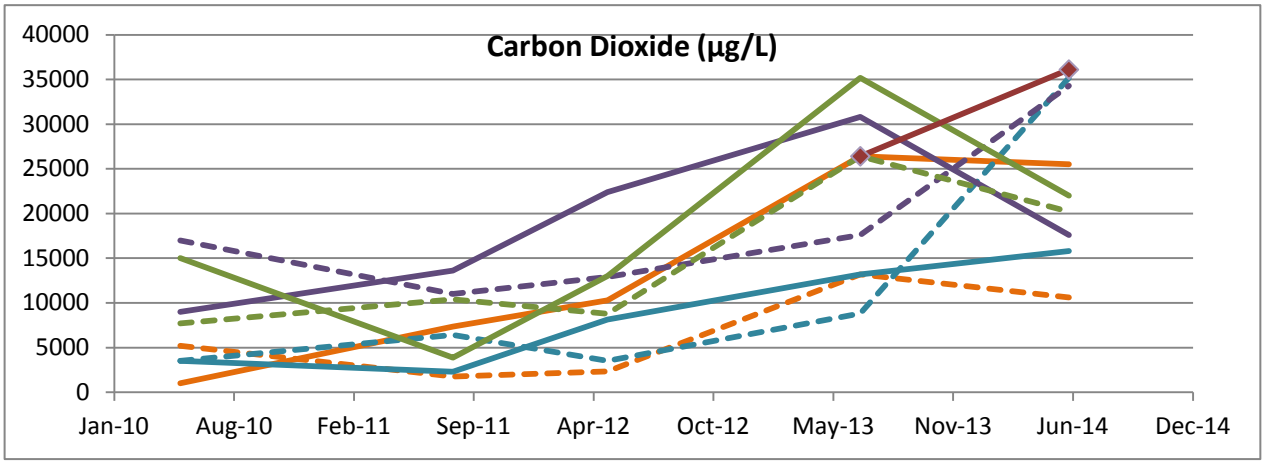
Figure 6

Groundwater VOC Concentrations over Time

Page 2 of 2

Standard
MW11D
MW11S
MW12D
MW12S
MW13D
MW13S
MW1D
MW1S
NC-12





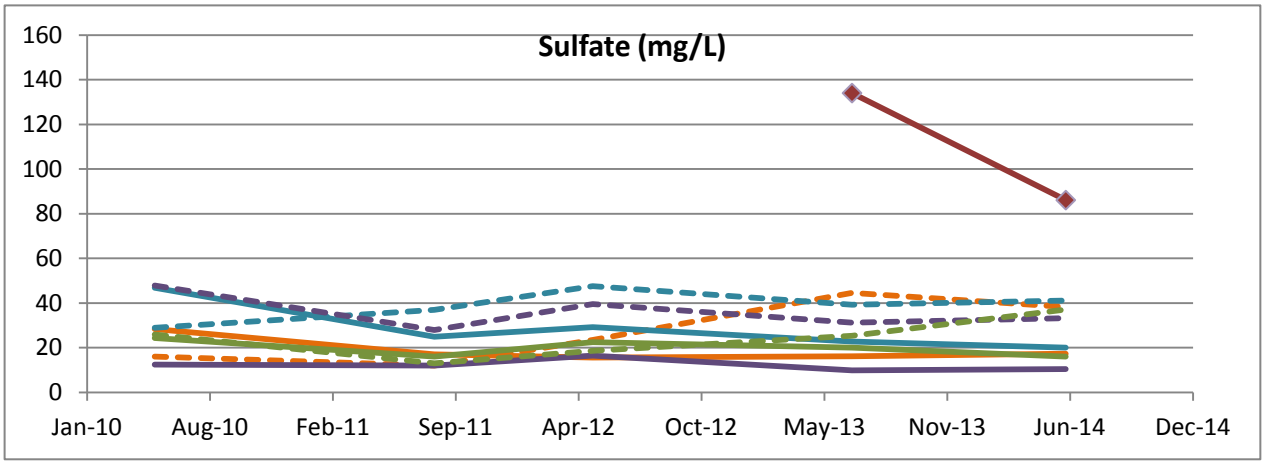
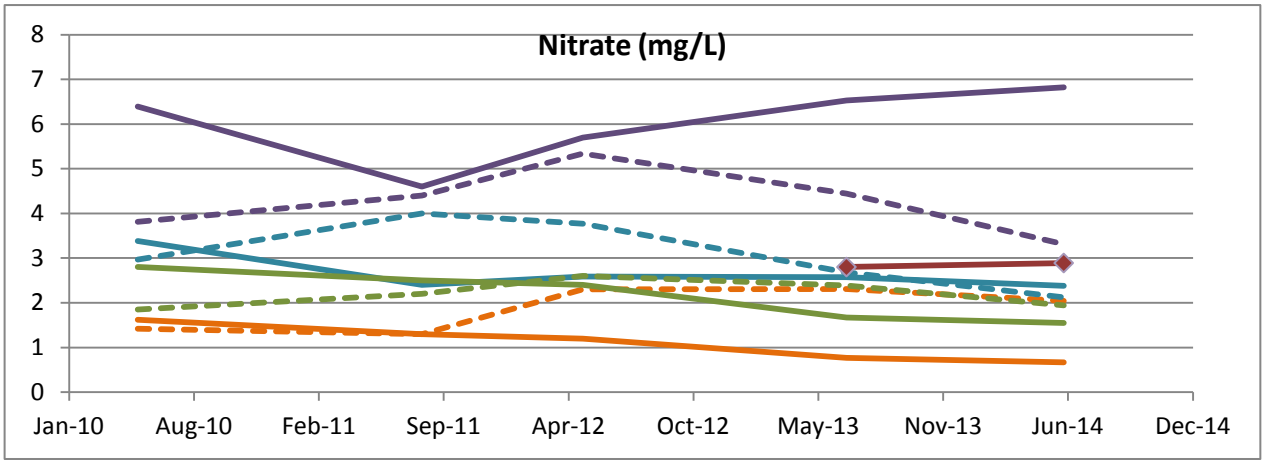


Figure 7

Groundwater MNA Parameter Concentrations over Time

Page 1 of 2



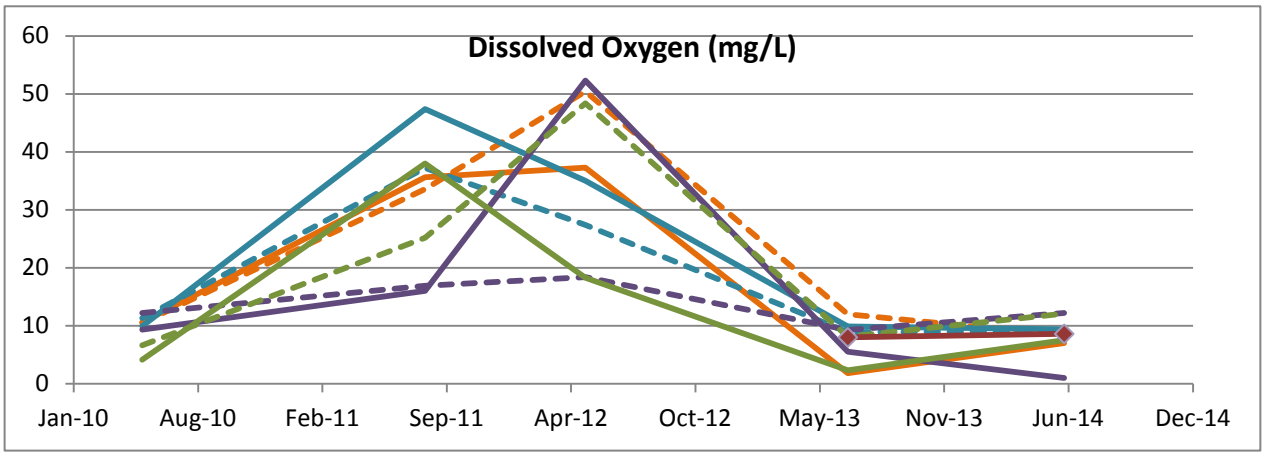


Figure 7

Groundwater MNA Parameter Concentrations over Time

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MW11D
MW11S
MW12D
MW12S
MW13D
MW13S
MW1D
MW1S
NC-12

APPENDIX A

Field Forms

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-1S **Date:** 6/3/2014
Type: Stickup ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____
Riser Diameter: 2inch
Riser Material: PVC
Riser Appearance: OK
Stickup Material: (PVC) ~~Stainless steel~~ ~~Other~~ flush
Stickup Diameter: NA
Inspector: LF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ OK
Soil Erosion: NA
Ponded Water: NA
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ None
Cannot Identify: N

Depth to water from TOC: 46.38
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ No problems
Obstruction in well: No
PID reading: 0
Active pump in well: YES ■ (NO) ■ Type:
Comments: Replace bolts

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-1D **Date:** 6/3/2014
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____ **Stickup Material:** (PVC) ~~Stainless steel~~ ~~Other~~ flush
Riser Diameter: 2" **Stickup Diameter:** NA
Riser Material: 2" PVC
Riser Appearance: OK **Inspector:** CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (OK)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 46.52
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ No issues
Obstruction in well: Yes, tubing, removed
PID reading: 0
Active pump in well: YES ■ (NO) ■ Type:
Comments: Replace bolts

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-11S
Date: 6/3/2014
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____
Riser Diameter: 2"
Riser Material: ~~2" PVC~~ Flush
Riser Appearance: OK
Stickup Material: ~~RVC~~ ~~Stainless steel~~ Other
Stickup Diameter: NA
Inspector: CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: YES ■ NO ■ Lock Replaced: YES ■ NO ■
Inner Cap: YES ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (OK)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 47.37
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ No issues
Obstruction in well: N
PID reading: 0
Active pump in well: YES ■ NO ■ Type:
Comments:

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-11D **Date:** 6/3/2014
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth:
Riser Diameter: 2"
Riser Material: PVC
Riser Appearance: ok
Stickup Material: ~~PVC~~ ~~Stainless steel~~ ~~Other~~ flush
Stickup Diameter: NA
Inspector: CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (ok)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 47.36
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ No problems
Obstruction in well: N
PID reading: 0.0
Active pump in well: YES ■ (NO) ■ Type:
Comments: tubing needs to be replaced

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-12S **Date:** 6/3/2014
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____ **Stickup Material:** ~~PVC~~ ~~Stainless steel~~ ~~Other~~ flush
Riser Diameter: 2" **Stickup Diameter:** NA
Riser Material: PVC
Riser Appearance: OK **Inspector:** CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N(OK)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 46.10
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ ok
Obstruction in well: N
PID reading: 0

Active pump in well: YES ■ (NO) ■ Type:

Comments:

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-12D **Date:** 6/3/2014
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____ **Stickup Material:** ~~PVC~~ ~~Stainless steel~~ Other flush
Riser Diameter: 2" **Stickup Diameter:** NA
Riser Material: PVC
Riser Appearance: OK **Inspector:** CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■ ~~✓~~
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (OK)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 45.60
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ OK
Obstruction in well: N
PID reading: 0.0
Active pump in well: (YES) ■ NO ■ Type:
Comments:

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-13S **Date:** 6/13/2013
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: _____ **Stickup Material:** ~~PVC~~ ~~Stainless steel~~ ~~Other~~ flush
Riser Diameter: 2" **Stickup Diameter:** N/A
Riser Material: PVC
Riser Appearance: OK **Inspector:** CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■
Inner Cap: (YES) ■ NO ■ VENTED ■ ~~N~~
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (OK)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 44.27
Depth to bottom from TOC:
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ No problems
Obstruction in well: N
PID reading: 0.0

Active pump in well: YES ■ (NO) ■ Type:

Comments:

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: MW-13D	**Date:** 6/13/2013
Type: **Stickup** ■ **Flushmount** ■	
Stickup Height: NA	
As-Built Well Depth:	**Stickup Material:** ~~PVC~~ ~~Stainless steel~~ ~~Other~~ flush
Riser Diameter: 2"	**Stickup Diameter:** NA
Riser Material: PVC	
Riser Appearance: OK	**Inspector:** CF

CONDITION

Signs of Vandalism: N

Cannot Locate: N

Locked / No Lock: (YES) ■ NO ■ Lock Replaced: YES ■ (NO) ■

Inner Cap: (YES) ■ NO ■ VENTED ■

Protective Casing Loose: N

Concrete Pad: CRACKED ■ MISSING ■ OK

Soil Erosion: N

Ponded Water: N

Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N

Cannot Identify: N

Depth to water from TOC: 44.35

Depth to bottom from TOC:

Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ OK

Obstruction in well: N

PID reading: 0.0

Active pump in well: YES ■ (NO) ■ Type:

Comments: Replaced tubing

Utility Manufacturing Site/Wonder King, New Cassel, NY
WA # D007626-16
NYSDEC Site: 130043H

Well Inspection Checklist

Well ID: NC-12 **Date:** 6/13/2013
Type: **Stickup** ■ **Flushmount** ■
Stickup Height: NA
As-Built Well Depth: Unknown **Stickup Material:** ~~PVC~~ Stainless steel Other flush
Riser Diameter: 2" **Stickup Diameter:** NA
Riser Material: PVC
Riser Appearance: OK **Inspector:** CF

CONDITION

Signs of Vandalism: N
Cannot Locate: N
Locked / No Lock: YES ■ NO ■ Lock Replaced: YES ■ NO ■
Inner Cap: YES ■ NO ■ VENTED ■
Protective Casing Loose: N
Concrete Pad: CRACKED ■ MISSING ■ N (ok)
Soil Erosion: N
Ponded Water: N
Well Marked: METAL TAG ■ MARKER ■ OTHER ■ N
Cannot Identify: N

Depth to water from TOC: 47.60
Depth to bottom from TOC: 54.50
Does well appear: SILTED UP ■ HARD BOTTOM ■ OTHER ■ OK
Obstruction in well: N
PID reading: 0.0

Active pump in well: YES ■ NO ■ Type:

Comments:

AECOM

WELL NO. MW-1D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster	
DRILLING COMPANY: NA			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
940	46.38								Static water level, pump on
1040	46.38	200.00	25.98	0.181	8.29	5.37	178	>1000	
1050	46.38	200.00	26.19	0.180	7.99	5.24	189	>1000	
1055	46.38	200.00	25.95	0.198	7.82	5.23	192	>1000	
1100	46.38	200.00	25.80	0.175	7.74	5.20	194	>1000	
1110	46.38	200.00	23.98	0.147	8.33	5.03	219	80.1	
1115	46.38	200.00	23.93	0.148	8.21	5.03	221	55.8	
1120	46.38	200.00	23.07	0.149	8.32	5.02	222	51.3	
1125	46.38	200.00	23.15	0.148	8.36	5.02	222	50.4	
1130									Sample MW-1D

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-1S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY	DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celeste Foster		
DRILLING COMPANY: NA			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
950	46.38	200							Static water level, pump on
1050	46.38	200	22.33	0.216	8.35	5.38	276.00	7.40	
1055	46.38	200	22.64	0.214	8.30	5.27	285.00	7.00	
1100	46.38	200	22.78	0.215	8.50	5.26	285.00	7.00	
1105	46.38	200	22.82	0.215	8.17	5.25	286.00	7.00	
1115									Sample MW-1S

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-11D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY	DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celeste Foster, John (YEC)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
745	47.36	180							Static water level, pump on
844		180	16.48	0.715	8.19	6.05	226	307	
854	47.31	180	16.45	0.710	8.14	6.02	230	150	
910	46.30	180	16.47	0.219	13.89	6.46	219	0.0	
925	47.95	180	17.27	0.216	12.75	6.69	227	770.0	
940	47.91	180	19.7	0.221	12.56	6.71	228	798	
1045	47.92	180	20.54	0.229	8.58	6.71	180	800.0	
1110									Sample MW-11D

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

Note: Well pumped for over 2 hours before sampling.

AECOM

WELL NO. MW-11S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster, John (YEC)	
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
745	47.37	180							Static water level, pump on
856	47.34	180	15.58	0.710	8.09	6.03	228	140	
905	47.34	180	15.79	0.713	7.96	6.02	229	104	
930	47.36	180	15.83	0.716	8.15	5.96	230	60.2	
945	47.37	180	15.66	0.685	6.79	6.08	217	44.1	
955	47.4	180	15.87	0.725	8.15	5.92	234	50.3	
1010	47.37	180	16.00	0.699	7.73	5.97	242	30.6	
1020	47.39	180	16.30	0.691	7.40	6.00	235	29.3	
1030	47.39	180	16.20	0.704	7.84	5.95	241	29.7	Sample MW-11S
1045									Duplicate MW-61

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-12D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster, John (YEC)	
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
1430	45.16	190							Static water level, pump on
1450	45.15	190	23.18	0.426	5.36	6.43	180	>1000	
1500	46.17	190	22.41	0.424	4.90	6.43	181	>1000	
1510	46.12	190	21.32	0.430	4.96	6.38	181	>1000	
1520	46.14	190	20.99	0.433	4.85	6.31	185	>1000	
1530	46.15	190	21.27	0.433	4.82	6.28	189	1000	
1540	46.17	190	20.85	0.427	4.80	6.23	191	648	
1550	46.17	190	20.70	0.419	4.78	6.18	197	369	
1600	46.16	190	20.41	0.411	4.66	6.18	202	348	
1610	46.16	190	20.40	0.407	4.76	6.18	205	347	Sample MW-12D

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-12S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster, John (YEC)	
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
1425	43.1	180							Static water level, pump on
1450	46.3	180	22.71	0.232	7.63	5.94	260	657	
1500	45.63	180	22.02	0.266	7.09	5.85	267	319	
1510	45.64	180	21.58	0.288	6.97	5.66	276	204	
1520	45.63	180	21.28	0.291	6.96	5.81	269	142	
1530	45.6	180	21.17	0.292	6.81	5.88	267	105	
1540	45.62	180	20.77	0.294	6.67	5.95	265	68.7	
1550	45.61	180	20.64	0.294	6.58	5.90	270	68.3	
1600	45.61	180	20.36	0.295	6.50	5.98	271	58.3	
1610									Sample MW-12S

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-13D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY	DATE WELL STARTED: June 4, 2014	DATE WELL COMPLETED: June 4, 2014	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celeste Foster		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
830	44.35								Static water level
835									Pump on
845	44.59	220							
900	44.61	200	16.5	0.187	1.72	6.14	178	>1000	
910	44.70	200							
915	44.52	200	15.76	0.186	1.67	5.78	242	>1000	
920	44.52	200	15.75	0.185	1.84	5.77	244	>1000	
925	44.51	200	15.71	0.185	0.68	5.77	246	890	
930	44.51	200	15.96	0.183	0.55	5.75	250	>1000	
940	44.51	200	15.78	0.182	0.47	5.74	252	863	
945	44.51	200	15.83	0.18	0.38	5.73	254	723	
955	44.51	200							
1005	44.51	200	16.02	0.175	0.27	6.28	225	551	
1015	44.51	200	16.10	0.174	0.21	6.37	222	488	
1030	44.51	200	16.20	0.172	0.22	6.33	225	447	
1040	44.51	200	16.40	0.171	0.17	6.03	242	390	
1045	44.51	200	16.31	0.171	0.15	6.07	239	385	
1055	44.51	200	16.31	0.171	0.13	6.09	238	361	
1100									Sample MW-13D

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. MW-13S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 4, 2014	DATE WELL COMPLETED: June 4, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster	
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
828	44.23								Static water level
835		250							Pump on
845	43.18	250	20.36	0.438	8.47	5.45	288	412	
855	43.22	250	19.52	0.403	7.22	5.15	312	142	
905	43.28	230							
910	43.7	200							
915	43.75	200	19.11	0.401	7.92	5.33	305	55.9	
920	43.78	200	19.08	0.401	8.13	5.31	310	37.5	
925	43.78	200	19.07	0.403	8.11	5.36	301	38.8	
930	43.78	200	19.1	0.403	8.70	5.42	308	28.3	
940	43.78	200	169.2	0.401	8.90	5.47	305	24.9	
945	43.78	200	19.35	0.400	9.10	5.46	311	22.0	
955	43.78	200	19.55	0.397	8.83	5.48	303	23.8	
1000									Sample MW-13S and MS/MSD for VOCs

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

AECOM

WELL NO. NC-12

WELL SAMPLING FORM	PROJECT: Utility Manufacturing/Wonder King Site	PROJECT No.: 60269807	SHEET: 1 OF 1 SHEETS
LOCATION: Westbury, NY		DATE WELL STARTED: June 3, 2014	DATE WELL COMPLETED: June 3, 2014
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster	
DRILLING COMPANY: NA			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (ºC)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	
1450	48.44								Static water level
1455		200							Pump on
1500	48.47	200	27.66	2.87	6.34	6.18	267	200	
1505	48.47	200	25.83	2.95	6.09	6.15	265	184	
1510	48.45	200	22.00	3.15	6.14	6.14	260	174	
1515	48.44	200	20.79	3.21	6.30	6.19	255	52.4	
1520	48.44	200	20.68	3.23	6.32	6.20	254	10.3	
1525	48.44	200	20.65	3.23	6.33	6.20	254	4.8	
1530									Sample NC-12

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs, methane, carbon dioxide, dissolved oxygen, iron

APPENDIX B

Data Usability Summary Reports

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
UTILITY MANUFACTURING, WESTBURY, NEW YORK

Client: AECOM Technical Services, Inc., Chestnut Ridge, New York
SDG: AECOM233
Laboratory: Pace Analytical, Melville, New York
Site: Utility Manufacturing, Westbury, New York
Date: August 6, 2014

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MW-1D	1406187-001	Water
2	MW-1S	1406187-002	Water
3	MW-11D	1406187-003	Water
4	MW-11S	1406187-004	Water
5	MW-61S	1406187-005	Water
6	MW-12D	1406230-001	Water
7	MW-12S	1406230-002	Water
8	NC-12	1406230-003	Water
9	STORAGE BLANK	1406230-004	Water
10	MW-13D	1406276-001	Water
11	MW-13S	1406276-002	Water
11MS	MW-13SMS	1406276-002MS	Water
11MSD	MW-13SMSD	1406276-002MSD	Water
12	TRIP BLANK	1406276-003	Water

A Data Usability Summary Review was performed on the analytical data for ten water samples, one aqueous trip blank sample, and one aqueous storage blank sample collected on June 3-4, 2014 by AECOM at the Utility Manufacturing site in Westbury, New York. The samples were analyzed under Environmental Protection Agency (USEPA) *"Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions"*.

Specific method references are as follows:

Analysis	*Method References*
VOCs	USEPA SW-846 Method 8260B

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-24, Revision 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics

- Data Completeness
- Holding times and sample preservation
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Method blank and field blank contamination
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Initial and continuing calibration summaries
- Compound Quantitation
- Internal standard area and retention time summary forms
- Field Duplicate sample precision

Overall Usability Issues:

There were minor rejections of data. This data cannot be used in the decision-making process for this project.

- 1,2-Dibromo-3-chloropropane was rejected in all samples due to a low continuing calibration RRF value.

Overall the remaining data is acceptable for the intended purposes as qualified for the following deficiencies.

- Seven compounds were qualified as estimated in one sample due to high MS/MSD recoveries.
- Seven compounds were qualified as estimated in all samples due to high continuing calibration %D values.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Volatile Organic Compounds (VOCs)

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

MS/MSD Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier
11	Dichlorodifluoromethane	OK/160%/OK	None - ND
	Chloromethane	OK/174%/OK	None - ND
	Vinyl chloride	140%/167%/OK	None - ND
	Bromomethane	OK/152%/OK	J
	Trichlorofluoromethane	145%/172%/OK	None - ND
	1,1-Dichloroethene	143%/147%/OK	J
	trans-1,2-Dichloroethene	OK/134%/OK	None - ND
	Methyl tert-butyl ether	137%/143%/OK	None - ND
	1,1-Dichloroethane	179%/185%/OK	J
	cis-1,2-Dichloroethene	183%/192%/OK	J
	Chloroform	145%/150%/OK	None - ND
	1,1,1-Trichloroethane	157%/163%	J
	Carbon tetrachloride	143%/150%/OK	None - ND
	1,2-Dichloroethane	167%/174%/OK	None - ND
	cis-1,3-Dichloropropene	OK/131%/OK	J
	trans-1,3-Dichloropropene	132%/141%/OK	None - ND
	Tetrachloroethene	130%/133%/OK	J
	Bromoform	OK/137%/OK	None - ND

Laboratory Control Samples

- The following table presents LCS percent recoveries (%R) outside the QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

LCS ID	Compound	%R	Qualifier	Affected Samples
LFB061314	Methyl tert-butyl ether	122%	None	All ND
	1,2-Dichloroethane	138%	None	

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table lists field blanks with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. For detected compound concentrations <RL, the results are negated and qualified (U). For detected sample concentrations >RL of methylene chloride, 2-butanone or acetone (common laboratory contaminants) less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U). For all other compounds >RL, an action level of five times (5x) the highest associated blank concentration is used.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
TRIP BLANK	ND	-	-	-
STORAGE BLANK	ND	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The following table presents compounds that exceeded 20 percent deviation (%D) and/or RRF values <0.05 in the continuing calibration (CCAL). A low RRF indicates poor instrument sensitivity for these compounds. Positive results for these compounds in the affected samples are considered estimated and qualified (J). Non-detect results for these compounds in the affected samples are rejected (R) and are unusable for project objectives. A high %D may indicate a potential high or low bias. All results for these compounds in affected samples are considered estimated and qualified (J/UJ).

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
06/13/14	Bromomethane	42.5%	J/UJ	All Samples
	2-Butanone	20.5%	J/UJ	
	4-Methyl-2-pentanone	24.7%	J/UJ	
	2-Hexanone	25.6%	J/UJ	
	1,2-Dibromoethane	20.9%	J/UJ	
	1,1,2,2-Tetrachloroethane	31.1%	J/UJ	
	1,2-Dibromo-3-chloropropane	28.2%/0.046 RRF	J/R	
	1,2,4-Trichlorobenzene	27.3%	J/UJ	

Compound Quantitation

- All criteria were met.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision is acceptable.

VOC				
Compound	MW-11S ug/L	MW-61S ug/L	RPD	Qualifier
1,2-Dichloroethene (total)	2	2	0%	None
cis-1,2-Dichloroethene	1	2	67%	None - <5X RL
Tetrachloroethene	2	2	0%	None

Tentatively Identified Compounds (TICs)

- TICs were not reported.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 8/6/14

Nancy Weaver
Senior Chemist

Data Qualifiers

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

UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81555.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	15		
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	6		
156-59-2	cis-1,2-Dichloroethene	6		
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	6		
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	77		
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	13		
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

NW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1D

1

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81555.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

NW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S

2

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81556.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	3		
156-59-2	cis-1,2-Dichloroethene	3	J	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	2	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

NW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 2

MW-1S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81556.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

NW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 3

MW-11D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81557.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	2	J	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	2	J	
540-59-0	1,2-Dichloroethene (total)	1		
156-59-2	cis-1,2-Dichloroethene	1	J	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	3	J	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	8		
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

NW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11D

3

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81557.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

NW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 4

MW-11S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-004A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81558.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	2		
156-59-2	cis-1,2-Dichloroethene	1	J	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	2	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 4

MW-11S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-004A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81558.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

MW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 5

MW-61S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-005A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81559.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	2		
156-59-2	cis-1,2-Dichloroethene	2	J	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	2	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-61S

5

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406187-005A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81559.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

MW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81560.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	1	J	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	1	J	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	2	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12D

6

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81560.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

7

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81561.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	1	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

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1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-12S

7

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81561.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

MW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NC-12

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81562.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

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1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NC-12

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81562.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

NW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Storage Blank

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-004A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81563.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

NW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 9

Storage Blank

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406230-004A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81563.D

Level: (low/med) LOW Date Received: 06/03/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

NW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81564.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	3	J	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	4		
156-59-2	cis-1,2-Dichloroethene	4	J	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	2	J	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	30		
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	3	J	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13D

10

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81564.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

MW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13S

11

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81565.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	2	~~U~~	J
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	2	~~U~~	J
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	18		J
540-59-0	1,2-Dichloroethene (total)	31		J
156-59-2	cis-1,2-Dichloroethene	30		J
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	8		J
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	12		
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	13		J
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13S

11

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81565.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

MW 7/31/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Trip Blank

12

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81566.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl chloride	5	U	
74-83-9	Bromomethane	5	~~U~~	UJ
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
67-64-1	Acetone	5	U	
75-15-0	Carbon disulfide	5	U	
79-20-9	Methyl Acetate	5	U	
75-09-2	Methylene chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
1634-04-4	Methyl tert-butyl ether	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	5	~~U~~	UJ
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
110-82-7	Cyclohexane	5	U	
56-23-5	Carbon tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
108-87-2	Methylcyclohexane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	5	~~U~~	UJ
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
591-78-6	2-Hexanone	5	~~U~~	UJ
124-48-1	Dibromochloromethane	5	U	

MW 7/31/14

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Trip Blank

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: AECOM-N SAS No.: _____ SDG No.: AECOM233

Matrix: (soil/water) WATER Lab Sample ID: 1406276-003A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A81566.D

Level: (low/med) LOW Date Received: 06/04/14

% Moisture: not dec. Date Analyzed: 06/13/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q	
106-93-4	1,2-Dibromoethane	5	~~U~~	UJ
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	~~U~~	UJ
541-73-1	1,3-Dichlorobenzene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
96-12-8	1,2-Dibromo-3-chloropropane	5	~~U~~	R
120-82-1	1,2,4-Trichlorobenzene	5	~~U~~	UJ

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