



AECOM  
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March 7, 2014

Mr. Brian Sadowski  
New York State Department of Environmental Conservation, Region 9  
Division of Environmental Remediation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Subject: 2013 PERIODIC REVIEW REPORT  
Chem-Trol Site, Registry No. 9-15-015,  
Blasdell, Erie County

Dear Mr. Sadowski:

AECOM Technical Services, Inc. (AECOM), on behalf of SC Holdings, Inc. (SC Holdings), is submitting this Periodic Review Report (PRR) along with a completed Institutional Controls and Engineering Controls (IC/EC) Certification Form (Attachment A) for the Chem-Trol site. This report is being submitted as requested by the New York State Department of Environmental Conservation (NYSDEC) in its letter dated January 30, 2014 to Mr. Mark Snyder. The letter provides guidance for preparing the PRR and IC/EC forms and requires that they be submitted to NYSDEC no later than March 17, 2014.

## **I. INTRODUCTION**

The Chem-Trol site is located at 4818 Lake Avenue, Town of Hamburg, in Erie County, New York. Chem-Trol Pollution Services purchased the property in 1969 and operated the site as a waste chemical processing facility that included chemical recovery, storage and neutralization. Wastes, including capacitors, pesticides, oil sludges, paint sludges, spent solvents and pickle liquors, were accepted at the facility for processing. The facility ceased operations in 1972 and operations were moved to a new facility in Model City, New York.

Chem-Trol was acquired by SCA Services, Inc. in 1973. In 1984, a wholly-owned subsidiary of Waste Management, Inc. acquired 100% of the stock of SCA Services, Inc. (since July 1998, Waste Management, Inc. is known as Waste Management Holdings, Inc.). On December 22, 1999, SCA Services, Inc. was liquidated, and the

assets of SCA Services, Inc. were merged into SC Holdings, Inc., a direct subsidiary of Waste Management Holdings, Inc.

As a result of historic waste processing activities, on-site soil and groundwater were impacted with heavy metals and volatile organic compounds (VOCs). In 1977, as part of the facility closure activities, Chem-Trol removed approximately 95 cubic yards of contaminated soils, placed clean soil cover and established vegetative cover over the area.

Investigative studies led to a Record of Decision (ROD) in 1996 that specified additional remedial activities. These included removal of additional soils, and construction of a soil vapor extraction (SVE) system and groundwater collection and treatment system. The SVE system includes a header pipe and eight subsurface laterals installed in a linear array within the area of remediated soils. The groundwater collection and treatment system includes a blast-fractured bedrock trench in which three groundwater collection wells are installed, conveyance piping, and a shallow tray air stripper that removes VOCs from the collected groundwater. The treated groundwater is discharged through a pipe to the South Branch of Smokes Creek.

The SVE system and the groundwater collection system continue to operate. During 2010, McMahon & Mann Consulting Engineers, PC (MMCE) evaluated the effectiveness of passive operation of the SVE system in removing soil vapors. Subsequently, the SVE system was converted from active to passive operation in 2010. A copy of the SVE system evaluation letter report was included as Attachment B in the 2010 PRR.

## **II. SITE OVERVIEW**

The Chem-Trol site is situated in an urban setting with industrial/commercial areas to the north and east, commercial development along Lake Avenue to the south, and residential areas to the west, across the South Branch of Smokes Creek. Figure 1 shows the Chem-Trol site location and features.

Investigations completed between 1991 and 1994 showed contaminated soils generally located in the former operations and surface lagoon areas. Additional soil contamination was found in the on-site tributary of Smokes Creek as well as the flood plain along the western edge of the site. Contaminated groundwater was found in the shallow overburden as well as the deeper bedrock beneath the site. Groundwater contours developed as part of the investigations show that groundwater flows in a northwesterly direction beneath the site toward the South Branch of Smokes Creek.

Because of the on-site contamination, the Chem-Trol site was assigned a hazardous waste site classification of 2 by NYSDEC. This classification indicates that the site poses a significant threat to public health and/or the environment and that action in the form of further investigations and remediation is required.

NYSDEC selected a remedial design based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Chem-Trol site. The March 1996 ROD selected a remedy that included:

- Excavation of soils and sediments from selected areas of the site,
- Installation of a groundwater collection trench along the western edge of the site,
- Improvement of the existing soil cover over the former chemical processing area, and,
- Installation of a SVE system within the former waste chemical processing area.

Goals for the remedial program were established through the remediation selection process given in 6 NYCRR 375-1.10. The remediation goals established for this site include:

- Reduce and remove chemical contamination in the soils, sediments and groundwater at the site,
- Eliminate the potential for direct human or animal contact with the contaminated soils, sediments and groundwaters at the site,
- Prevent migration of contaminants in the on-site soils into the groundwater,
- Prevent off-site migration of contaminated groundwater and mitigate the impacts of contaminated groundwater to the environment, and
- Provide for attainment of Soil Cleanup Guidelines (SCG) for groundwater quality to the extent practical.

### **III. REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS**

SC Holdings continues to monitor the performance of the SVE and groundwater collection and treatment system.

#### **SVE System**

SC Holdings submitted a work plan to NYSDEC on October 22, 2009 proposing conversion of the active system to a passive venting system and monitoring the performance of the passive system for a year. NYSDEC authorized the conversion to a passive system along with monthly monitoring. The SVE treatment system was converted from active to passive operation in January 2010.

After a year of monitoring, SC Holdings submitted a report describing the monitoring results as indicating that passive operation of the SVE system provides similar and possibly improved effectiveness as active operation of the SVE system in venting soil vapors. Water level data in the passive vent risers indicated that passive venting might also contribute to generally lower water levels in the laterals for a longer period of time over the course of the year and therefore provide a greater opportunity to vent soil vapors.

It was recommended that active operation of the SVE system permanently cease and that passive operation of the SVE system laterals continue. In addition, it was

recommended that continued monitoring of the SVE system laterals be eliminated. NYSDEC agreed with these recommendations in a letter to Mr. Mark Snyder dated May 29, 2011.

During this reporting period, the SVE system continued to operate passively. The lateral riser pipes were visually examined for damage during quarterly site visits. No damage was observed during these site visits.

### **Groundwater Collection and Treatment System**

SC Holdings has the following actions performed by third party consultants in order to monitor the performance of the groundwater collection system as required in the ROD:

- Perform monthly operation and maintenance tasks on the system,
- Perform quarterly acid wash of the air stripper, including a once-per-year dismantling of the air stripper to check seals and remove mineral accumulation in air stripper trays using mechanical means (scrubbing, re-drilling holes to full diameter, etc.),
- Sample and analyze the groundwater collection and treatment system influent and effluent on a monthly basis,
- Measure and record water levels in groundwater extraction wells and groundwater monitoring wells on a quarterly basis,
- Obtain annual groundwater samples from groundwater monitoring wells and analyze for organic compounds, and,
- Prepare bedrock groundwater contours based on quarterly water level measurements collected during the year.

Effluent from the groundwater collection and treatment system (air stripper) discharges into the South Branch of Smokes Creek. Monthly aqueous effluent samples taken from the air stripper surface water discharge pipe are analyzed for surface water discharge parameter limit concentrations. Analytical test results show that discharge parameter concentrations in the stripper effluent for 2013 were below the concentration and mass loading discharge limits established by NYSDEC 11 of 12 months. O-chlorotoluene exceeded the concentration but not the mass loading discharge limit in the November 14, 2013 effluent sample (report received December 6, 2013; detection of 12 ppb vs. discharge limit of 10 ppb) due to reduced efficiency of the air stripper (accumulated mineralization between scheduled acid washes). In response, AECOM's subcontractor, Matrix Environmental Technologies, Inc., performed a maintenance visit to dismantle and acid wash the system (performed December 23, 2013); the subsequent effluent sample collected December 27, 2013 showed no exceedance of the concentration or mass loading discharge limits.

Analytical test results for the 2013 monthly aqueous effluent samples are included in the O&M reports submitted by AECOM to NYSDEC on a quarterly basis.

Monthly testing of the air stripper exhaust discharge (vapor phase) samples ceased after April 2011. Monthly testing was eliminated based upon a letter from Al Zylinski, NYSDEC Division of Air Resources, to MMCE (consultant to SC Holdings) dated April 6, 2011. The letter approved elimination of sampling and testing of the air stripper exhaust.

A summary of groundwater elevations measured in the groundwater monitoring wells and piezometers is included in Table 1 - Summary of Groundwater Elevation Measurements 2013. Quarterly groundwater elevation contours are plotted on Figures 2 through 5.

The contours show that the three extraction wells depress water levels in the trench below natural groundwater levels in that area of the site. The resulting depression in the groundwater table creates groundwater flow toward the collection trench. The measurements demonstrate that the collection trench is functioning as designed to restrict offsite flow and limit groundwater discharge to the South Branch of Smokes Creek.

VOC analytical test results of groundwater treatment system influent samples have historically shown o-chlorotoluene levels in higher concentrations than other organic compounds. Therefore, concentrations of o-chlorotoluene detected in groundwater treatment influent samples have been used to assess the performance of the treatment system in reducing organic compound concentrations in the groundwater. The o-chlorotoluene concentration data for influent groundwater samples was plotted versus time for the July 2002 through December 2013 sampling events (see Figure 6). The plot shows that the concentration of o-chlorotoluene in the influent groundwater samples has been reduced since initiation of treatment system operation. This indicates that the treatment system is meeting the remedial goal of reducing organic compound concentrations in the groundwater.

A comparison of the influent and effluent sample analytical results shows that the air stripper is effectively removing VOCs from the groundwater collected by the treatment system.

A summary of organic compound analytical test detections for the annual 2013 groundwater-sampling event is included as Table 2, Detection Summary. The complete 2013 groundwater sample analytical laboratory report is included as Attachment B.

#### **IV. O&M PLAN COMPLIANCE**

SC Holdings performed the following activities as part of the Operation & Maintenance (O&M) Plan requirements:

##### **Soil Vapor Extraction System**

Third party consultants (AECOM) performed the following activities in 2013 as part of quarterly visits to the site:

- Visually observed each SVE passive vent riser for damage.

##### **Groundwater Collection and Treatment System**

Third party consultants (AECOM) performed the following activities in 2013 as part of monthly O&M visits:

- Verified that each extraction well was running and performing as designed,
- Observed that each pump was operating, documented pumping rates, total gallons pumped and insured that high and low water controls are functioning as designed,
- Performed monthly influent and effluent sample analytical testing,
- Observed that the air stripper was performing as designed,
- Performed monthly inspections and cleaning of stripper trays. Performed acid washes quarterly or more often if necessary to promote optimum removal of volatile organic compounds, and
- Prepared and submitted O&M reports on a quarterly basis to NYSDEC.

The quarterly O&M reports submitted to NYSDEC provide further details on specific activities performed, analytical testing results, and observations made during the monthly O&M visits. With the exception of general maintenance work performed on pumps, equipment (replaced variable frequency drives in EW-2 and EW-3), and sensors, as described in the monthly O&M reports, no significant issues have occurred to the groundwater collection and treatment system. Results of the treatment system performance are discussed in Section III.

#### **V. CONCLUSIONS AND RECOMMENDATIONS**

##### **Groundwater Collection and Treatment**

A comparison of the monthly influent vs. effluent analytical test results shows that the groundwater collection and treatment system continues to remove contaminants from groundwater at the Chem-Trol site. A plot of the influent o-chlorotoluene concentration versus time (see Figure 6) indicates that the source contributing to groundwater VOC

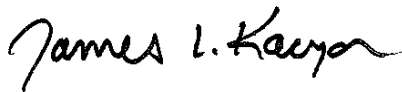
concentrations has been reduced to where its influence on groundwater has decreased and appears to continue approaching an asymptotic curve.

The quarterly groundwater elevation data show that the groundwater collection system continues to contain groundwater contaminants and creates a gradient toward the groundwater collection wells and away from the South Branch of Smokes Creek.

No changes to the activities currently being performed at the Chem-Trol site are recommended.

Please call the undersigned at AECOM (716-836-4506) or Mr. Mark R. Snyder (585-223-6922) if you have any questions or require any additional information after reviewing this report.

Sincerely yours,



James L. Kaczor, P.G.  
Project Manager  
james.kaczor@aecom.com

Enclosures (Tables, Figures)

Attachments (IC/EC Form, 2013 Annual Groundwater Data Report)

cc. Mark R. Snyder, P.E. (SC Holdings, Inc.) w/attachments  
Daniel Servetas, P.E. (AECOM), w/attachments  
60164822 Project File

## **TABLES**

**Table 1: Summary of Groundwater Elevations - 2013**

**Table 2: Groundwater Sample Detection Summary – 2013**



Table 1  
Chem-Trol Site  
2013 Quarterly Ground Water Elevations

Pumping Wells		1Q Date		2Q Date		3Q Date		4Q Date	
		3/14/2013		6/26/2013		9/19/2013		12/19/2013	
Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
EW-1	624.07	20.55	603.52	22.72	601.35	18.68	605.39	16.65	607.42
EW-2	622.16	16.89	605.27	19.25	602.91	15.71	606.45	14.30	607.86
EW-3	621.10	10.80	610.30	14.80	606.30	16.05	605.05	14.35	606.75

**East of Cap (North to South)**

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-6S	638.54	7.80	630.74	9.78	628.76	12.36	626.18	8.06	630.48
MW-6R	638.64	17.44	621.20	18.13	620.51	19.51	619.13	17.72	620.92
P-1S	642.80	5.40	637.40	6.81	635.99	9.45	633.35	5.48	637.32
MW-1R	645.36	7.29	638.07	8.82	636.54	11.35	634.01	7.54	637.82
MW-1S	645.40	5.21	640.19	7.17	638.23	11.21	634.19	5.55	639.85
MW-7S	642.85	4.25	638.60	8.19	634.66	11.10	631.75	4.88	637.97
MW-7R	642.28	4.94	637.34	6.72	635.56	8.65	633.63	5.41	636.87

**Center of Cap (North to South)**

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
P-5S	637.54	9.46	628.08	12.45	625.09	>13.80	DRY	10.80	626.74
P-5R	637.88	19.12	618.76	20.22	617.66	21.36	616.52	9.58	628.30
MW-5S	636.28	11.59	624.69	12.06	624.22	14.02	622.26	11.16	625.12
P-2R	646.96	4.98	641.98	10.70	636.26	14.20	632.76	5.43	641.53
P-2S	646.44	9.30	637.14	9.95	636.49	12.43	634.01	8.88	637.56
MW-2S	644.85	6.44	638.41	8.00	636.85	10.61	634.24	6.71	638.14

**West of Cap (North to South)**

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-4S	637.18	13.14	624.04	14.14	623.04	>15.68	DRY	13.50	623.68
MW-4R	637.02	26.75	610.27	29.59	607.43	30.19	606.83	27.86	609.16
P-4S	636.54	15.15	621.39	15.76	620.78	16.05	620.49	15.29	621.25
MW-3S	637.64	17.43	620.21	17.92	619.72	18.91	618.73	17.38	620.26
P-3R	639.92	20.88	619.04	20.90	619.02	20.95	618.97	20.74	619.18
P-3S	639.46	NA	NA	19.38	620.08	20.04	619.42	10.31	629.15
OW-3R	638.78	23.55	615.23	23.88	614.90	24.66	614.12	23.19	615.59

**West of Trench (North to South)**

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
OW-1FR	620.42	9.85	610.57	12.72	607.70	13.44	606.98	11.08	609.34
P97-5	613.65	3.61	610.04	6.17	607.48	7.41	606.24	4.64	609.01
MW-10S	615.15	4.05	611.10	>5.85	DRY	>6.27	DRY	5.29	609.86
MW-10R	615.47	4.88	610.59	7.74	607.73	8.30	607.17	6.09	609.38
P97-4	614.8	4.60	610.20	6.22	608.58	7.67	607.13	5.67	609.13
MW-8S	617.28	5.65	611.63	>7.10	DRY	>7.40	DRY	7.05	610.23
MW-8R	617.38	7.05	610.33	9.71	607.67	10.47	606.91	8.12	609.26
P97-3	617.66	7.21	610.45	10.06	607.60	10.85	606.81	NA	NA
MW-9RD	619.13	7.55	611.58	7.21	611.92	7.75	611.38	7.38	611.75
MW-9R	619.17	8.64	610.53	11.53	607.64	12.34	606.83	9.88	609.29
MW-9S	619.91	8.90	611.01	>10.55	DRY	>10.7	DRY	10.11	609.80
OW-2FR	624.14	13.52	610.62	16.52	607.62	17.20	606.94	14.82	609.32
P97-2	619.07	7.42	611.65	8.97	610.10	9.92	609.15	8.00	611.07
P97-1	619.97	7.15	612.82	7.98	611.99	9.14	610.83	7.64	612.33
MW-12R	621.59	7.82	613.77	11.11	610.48	12.18	609.41	10.19	611.40
MW-12S	621.17	4.20	616.97	6.86	614.31	>9.73	DRY	5.71	615.46

**West of Smokes Creek (North to South)**

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-13R	615.14	5.30	609.84	7.73	607.41	8.46	606.68	6.24	608.90
MW-14R	618.55	5.50	613.05	5.57	612.98	6.11	612.44	6.04	612.51

# TABLE 2 Detection Summary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Client Sample ID: DUP

Lab Sample ID: 480-49523-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	76		5.0		ug/L	1		8260C	Total/NA
o-Chlorotoluene	91		5.0		ug/L	1		8260C	Total/NA
Chloroethane	21		5.0		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane - DL	210		5.0		ug/L	4		8260C	Total/NA

## Client Sample ID: MW-13R

Lab Sample ID: 480-49523-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	17		5.0		ug/L	5		8260C	Total/NA
1,1-Dichloroethane	67		5.0		ug/L	5		8260C	Total/NA
Chloroethane	43		5.0		ug/L	5		8260C	Total/NA
o-Chlorotoluene - DL	2500		34		ug/L	40		8260C	Total/NA

## Client Sample ID: MW-15R

Lab Sample ID: 480-49523-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.3		5.0		ug/L	1		8260C	Total/NA
Cyclohexane	68		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	42		5.0		ug/L	1		8260C	Total/NA
Xylenes, Total	48		15		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-3S

Lab Sample ID: 480-49523-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	40000		430		ug/L	500		8260C	Total/NA
Methylene Chloride	320		220		ug/L	500		8260C	Total/NA

## Client Sample ID: MW-7R

Lab Sample ID: 480-49523-5

No Detections.

## Client Sample ID: MW-8R

Lab Sample ID: 480-49523-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	8.2		5.0		ug/L	1		8260C	Total/NA
o-Chlorotoluene - DL	210		5.0		ug/L	4		8260C	Total/NA

## Client Sample ID: MW-9R

Lab Sample ID: 480-49523-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	220		5.0		ug/L	5		8260C	Total/NA
1,1-Dichloroethane	82		5.0		ug/L	5		8260C	Total/NA
o-Chlorotoluene	97		5.0		ug/L	5		8260C	Total/NA
Chloroethane	23		5.0		ug/L	5		8260C	Total/NA

## Client Sample ID: TB

Lab Sample ID: 480-49523-8

No Detections.

This Detection Summary does not include radiochemical test results.

11/15/2013

## **FIGURES**

**Figure 1: Site Plan**

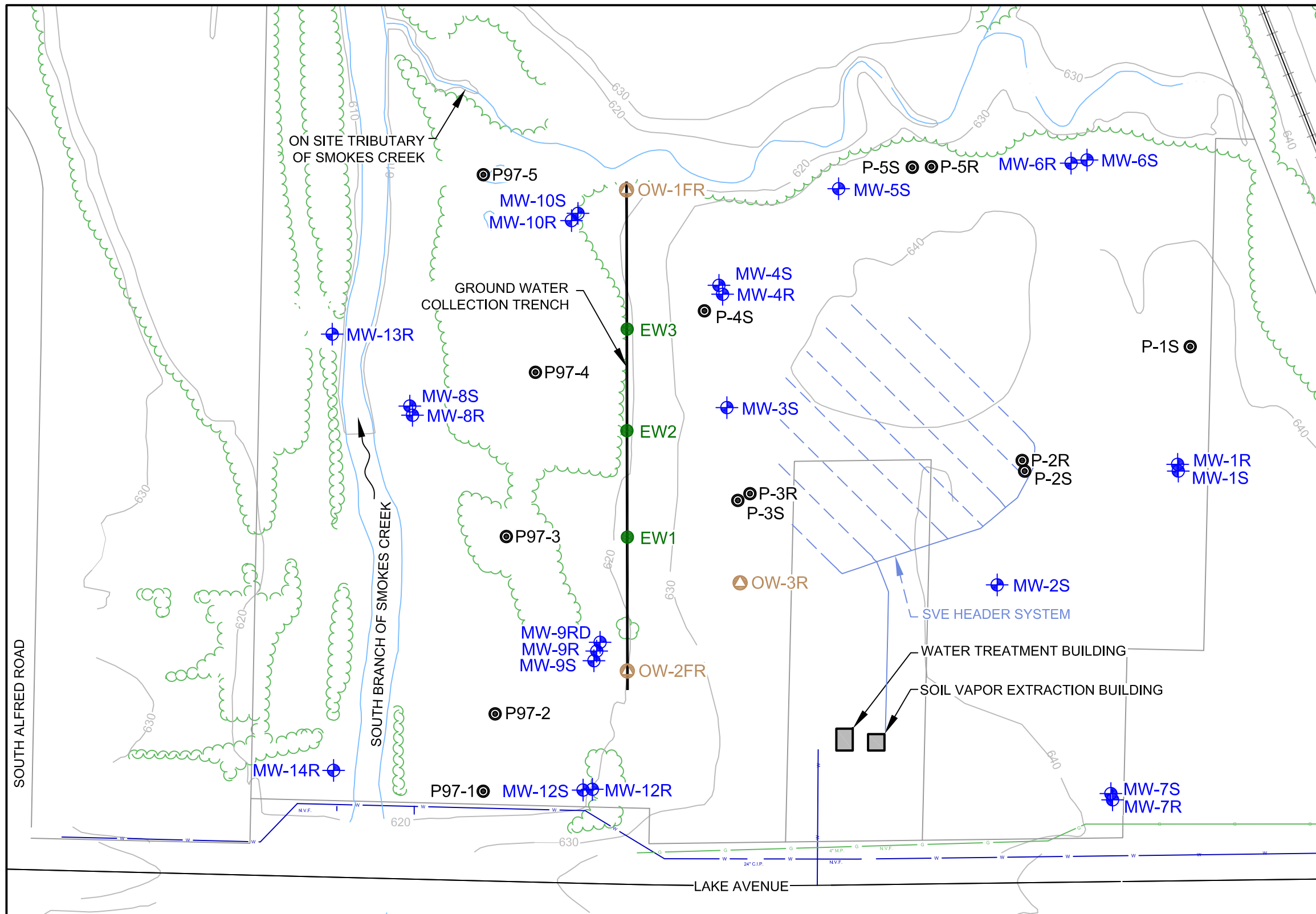
**Figure 2: Bedrock Groundwater Contours – March 14, 2013**

**Figure 3: Bedrock Groundwater Contours – June 26, 2013**

**Figure 4: Bedrock Groundwater Contours – September 19, 2013**

**Figure 5: Bedrock Groundwater Contours – December 19, 2013**

**Figure 6: Influent o-Chlorotoluene Concentration 2003 - 2013**

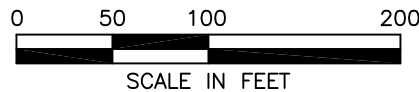


LEGEND:

- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- OBSERVATION WELL LOCATION
- EXTRACTION WELL LOCATION
- EXISTING GROUND CONTOUR
- PROPERTY LINE
- EDGE OF WATER

NOTE:

- BASEMAP AND DATA SHOWN PROVIDED BY MCMAHON & MANN CONSULTING ENGINEERS, P.C., MARCH 2011.



**AECOM**

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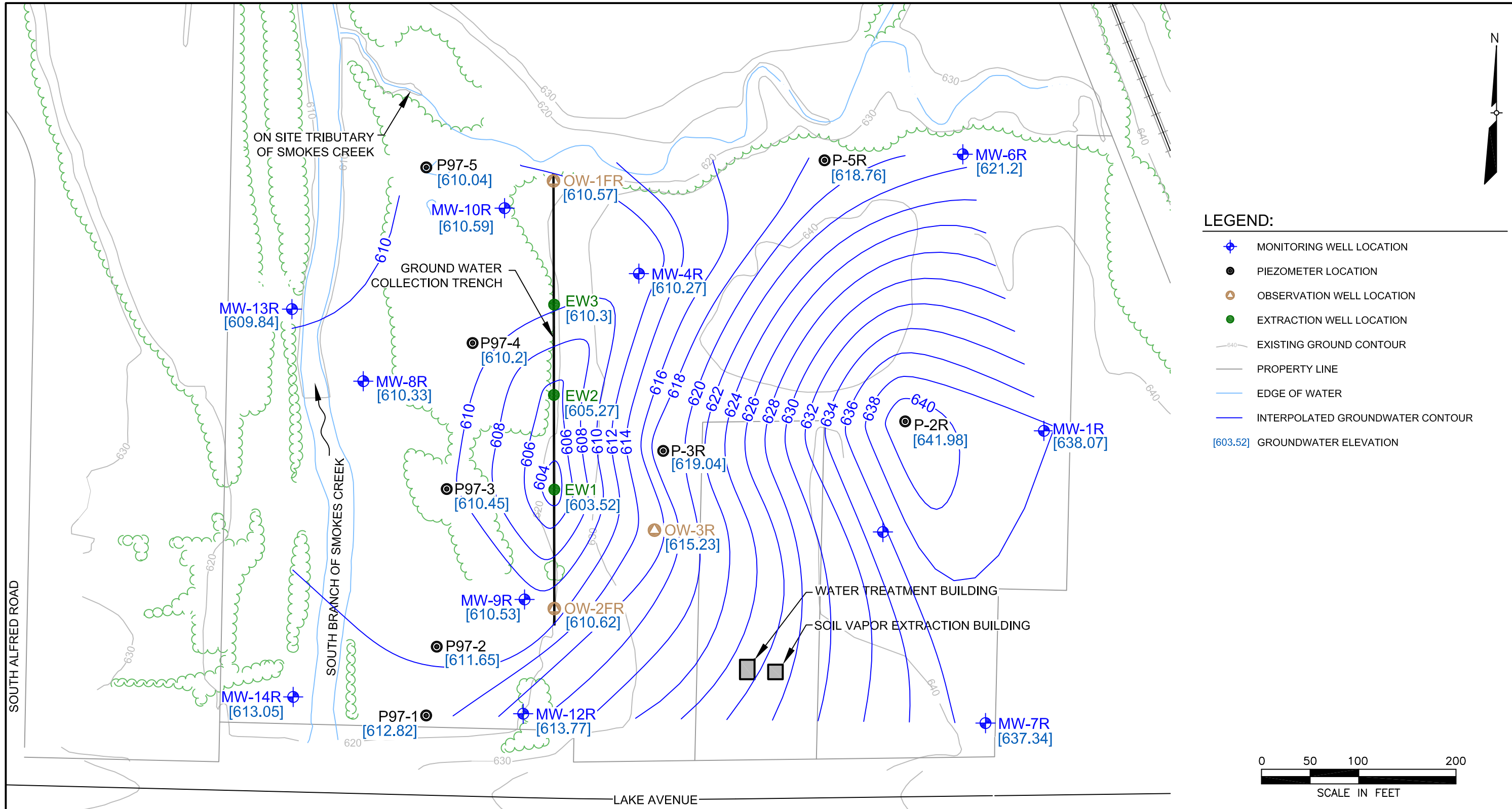
FIGURE 1  
SITE PLAN

CHEM-TROL  
ERIE COUNTY, NEW YORK

SOURCE: BASEMAP AND DATA SHOWN PROVIDED BY McMahon & Mann Consulting Engineers, P.C., MARCH 2011.

FEBRUARY 2013

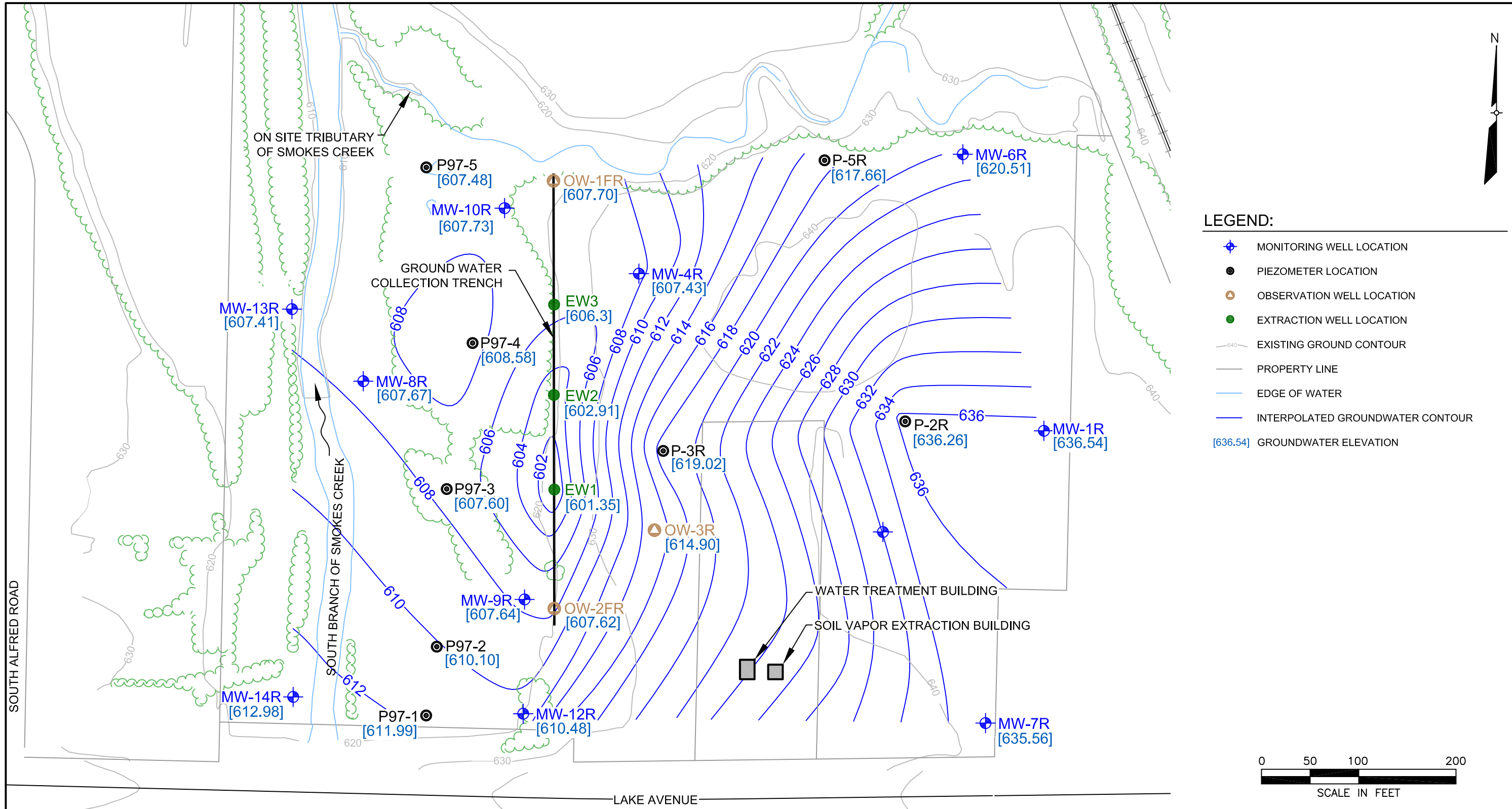
60164822



SOURCE: BASEMAP SHOWN PROVIDED BY McMahon & Mann Consulting Engineers, P.C., JANUARY 21, 2013.

APRIL 2013

60164822



SOURCE: BASEMAP SHOWN PROVIDED BY McMahon & Mann Consulting Engineers, P.C., JANUARY 21, 2013.

100 Corporate Parkway, Suite 341  
Amherst, New York 14226  
T: 716.836.4506

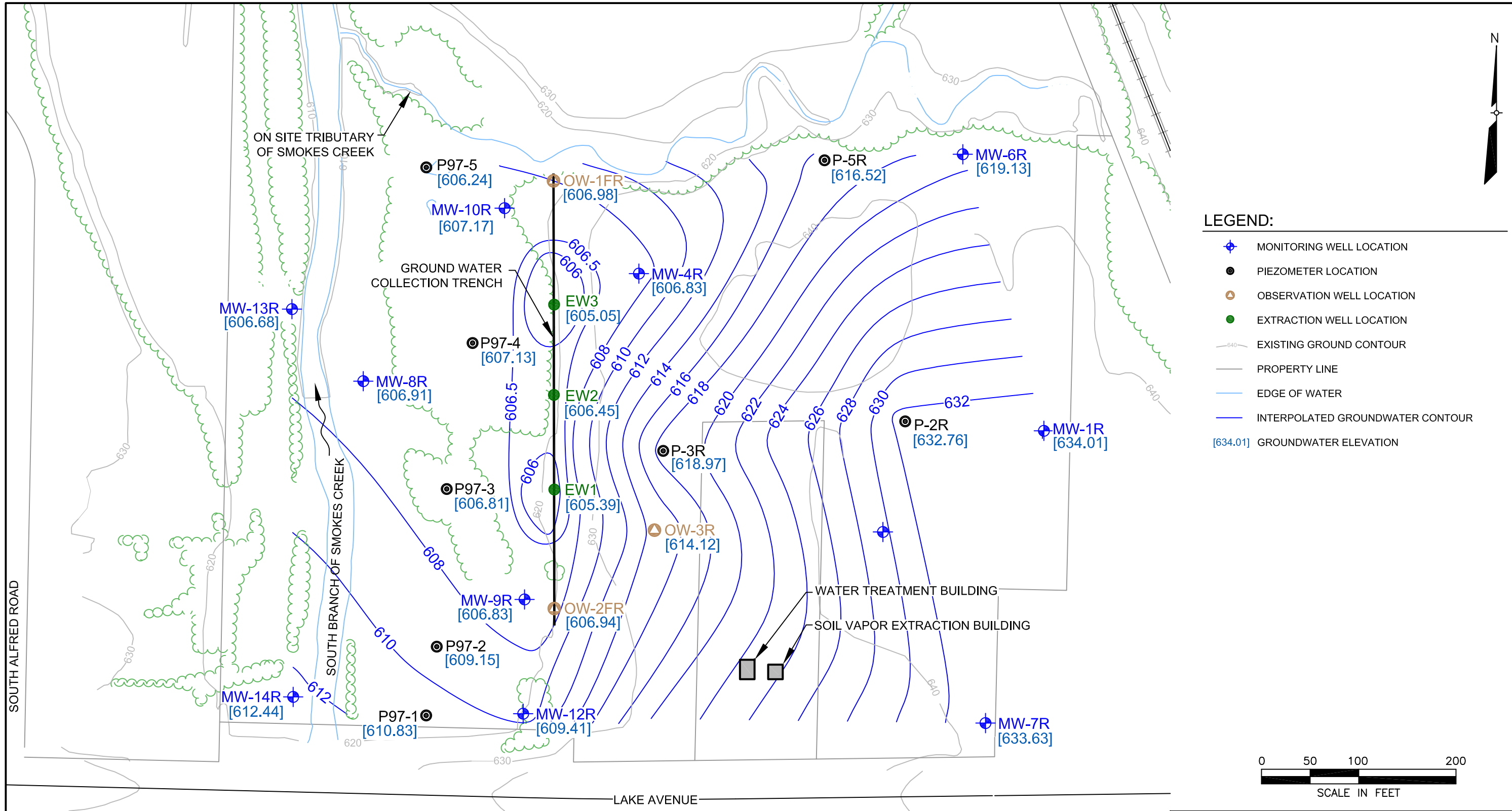
FIGURE 3  
BEDROCK GROUNDWATER CONTOURS  
JUNE 26, 2013

CHEM-TROL  
ERIE COUNTY, NEW YORK

JULY 2013

60164822





SOURCE: BASEMAP SHOWN PROVIDED BY McMahon & Mann Consulting Engineers, P.C., JANUARY 21, 2013.

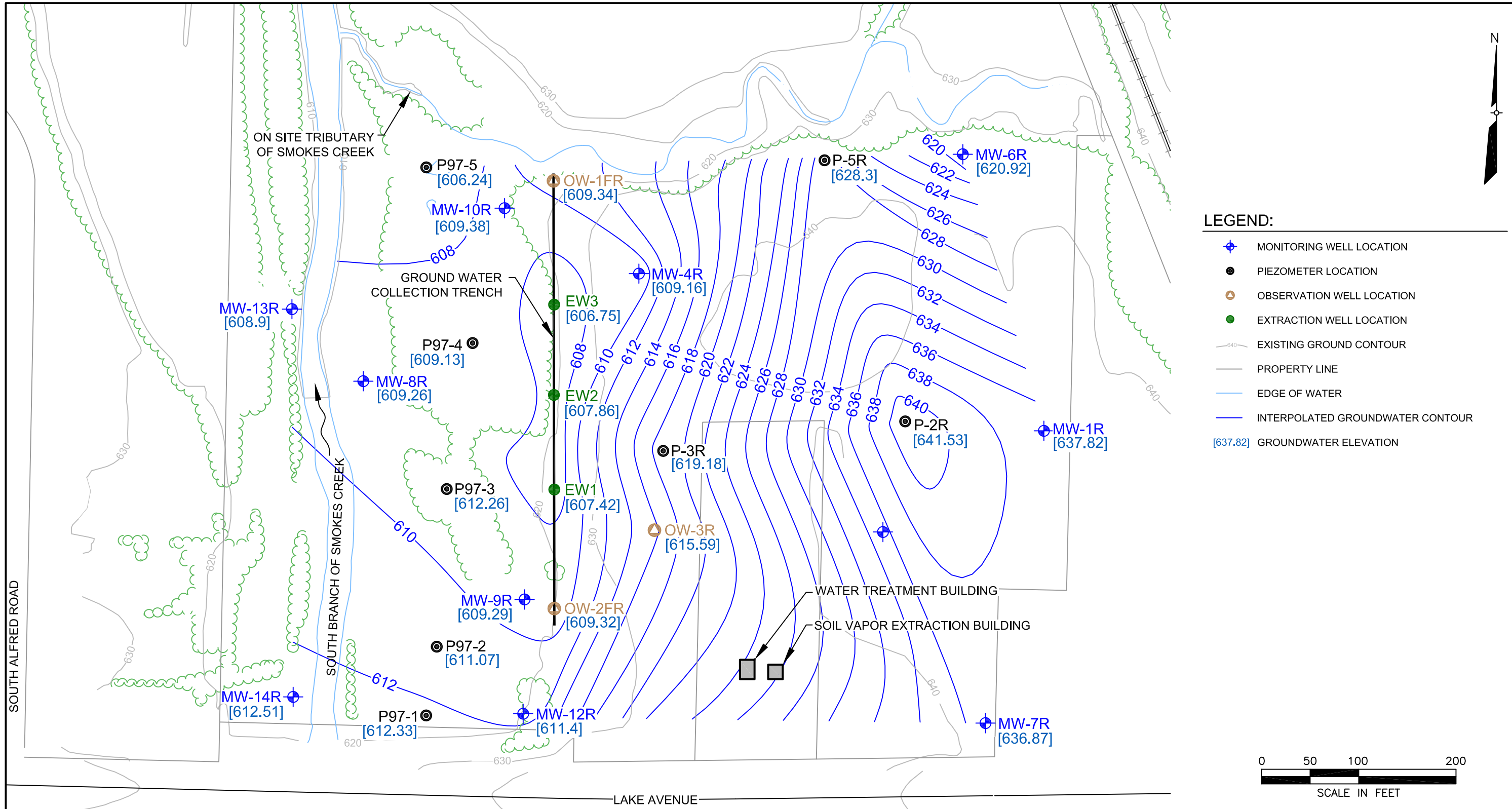
100 Corporate Parkway, Suite 341  
Amherst, New York 14226  
T: 716.836.4506

FIGURE 4  
BEDROCK GROUNDWATER CONTOURS  
SEPTEMBER 19, 2013


CHEM-TROL  
ERIE COUNTY, NEW YORK

DECEMBER 2013

60164822



SOURCE: BASEMAP SHOWN PROVIDED BY McMahon & Mann Consulting Engineers, P.C., JANUARY 21, 2013.



100 Corporate Parkway, Suite 341  
Amherst, New York 14226  
T: 716.836.4506

FIGURE 5  
BEDROCK GROUNDWATER CONTOURS  
DECEMBER 19, 2013

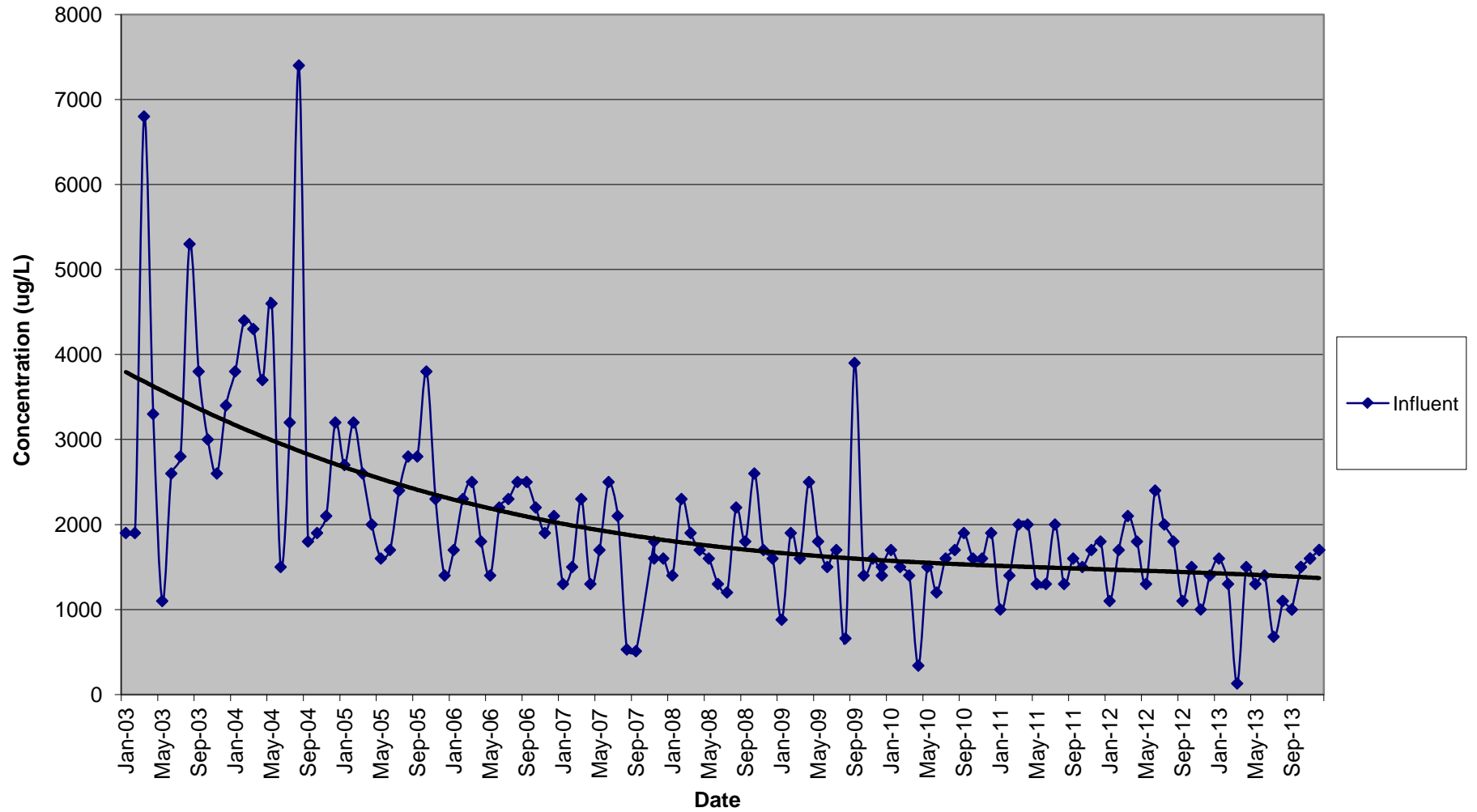
CHEM-TROL  
ERIE COUNTY, NEW YORK

DECEMBER 201360164822



FIGURE 6

Chem-Trol Groundwater Treatment System  
Influent o-Chlorotoluene Concentration  
2003-2013



## **ATTACHMENT A**

**Completed IC/EC Form**



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



**Site Details**

**Box 1**

**Site No.**            **915015**

**Site Name** Chem-Trol

Site Address: Lake Avenue      Zip Code: 14107  
City/Town: Hamburg  
County: Erie  
Site Acreage: 17.5

Reporting Period: February 15, 2013 to February 15, 2014

- |  | YES                                 | NO                                  |
|--|-------------------------------------|-------------------------------------|
| 1. Is the information above correct?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If NO, include handwritten above or on a separate sheet.   |                                     |                                     |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b> |                                     |                                     |
| 5. Is the site currently undergoing development?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Box 2**

YES      NO

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 6. Is the current site use consistent with the use(s) listed below?<br>Closed Landfill | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Are all ICs/ECs in place and functioning as designed?                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

**Description of Institutional Controls**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
151.02-1-14.1	Waste Management	Ground Water Use Restriction Monitoring Plan O&M Plan Landuse Restriction

Remediation was completed in two phases consisting of "Source Control Elements" and "Groundwater Control Elements". These elements are summarized as follows:

## Source Control Elements:

- "Hot Spot" Soils Removal;
- Tributary Sediment Excavation/Disposal;
- Site Soils Cover; and
- Soil Vapor Extraction (passive state with one year evaluation starting January 2010; passive state permanently approved on May 29, 2011).

## Groundwater Control Elements:

- Groundwater Extraction, On-Site Treatment, and Discharge Compliance Monitoring; and
- Groundwater Quality Monitoring.

Discharge compliance monitoring, groundwater elevations and groundwater quality monitoring are completed to confirm that the remedy remains protective of public health and the environment.

The controls identified in the Declaration of Covenants and Restrictions, recorded with Erie County on March 25, 2004, include but are not limited to the following: the owner of the Property shall maintain the cap covering the Property by maintaining its grass cover, or after obtaining written approval from the Relevant Agency, by capping the Property with another material; the property is prohibited from being used for purposes other than for industrial or commercial use, excluding use for day care, child care and medical care; the use of groundwater underlying the property is prohibited without treatment to render it safe for drinking water or industrial purposes, except that the groundwater may be reasonably used as necessary to conduct tests to monitor contamination levels of the groundwater. These restrictive covenants are binding and shall run with the land.

**Description of Engineering Controls**

<u>Parcel</u>	<u>Engineering Control</u>
151.02-1-14.1	Groundwater Treatment System Cover System Groundwater Containment Fencing/Access Control Leachate Collection

### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

**IC CERTIFICATIONS**  
**SITE NO. 915015**

**Box 6**

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark R. Snyder at 425 Perinton Parkway, Fairport, NY 14450  
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

3/7/14  
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Daniel Servetas at 40 British American Blvd, Latham, NY 12110  
print name print business address

am certifying as a Professional Engineer for the Owner  
(Owner or Remedial Party)

3/4/2014

Signature of Professional Engineer, for the Owner or  
Remedial Party, Rendering Certification

Stamp  
(Required for PE)

Date

## **ATTACHMENT B**

### **2013 Annual Groundwater Sample Laboratory Report**



# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-49523-1

Client Project/Site: ChemTrol Site - Annual Groundwater

Sampling Event: ChemTrol Annual Groundwater

For:

Waste Management

425 Perinton Parkway

Fairport, New York 14450

Attn: Mr. Mark Snyder



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Authorized for release by:

11/15/2013 2:15:33 PM

Ryan VanDette, Project Manager II

(716)504-9830

[ryan.vandette@testamericainc.com](mailto:ryan.vandette@testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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## Definitions/Glossary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Job ID: 480-49523-1**

**Laboratory: TestAmerica Buffalo**

### Narrative

#### Job Narrative 480-49523-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 11/6/2013 3:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

#### GC/MS VOA

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-13R (480-49523-2), MW-9R (480-49523-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-13R (480-49523-2), MW-3S (480-49523-4), MW-8R (480-49523-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: DUP (480-49523-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The results reported for the following sample(s) do not concur with results previously reported for this site: MW-13R (480-49523-2), MW-8R (480-49523-6). Reanalysis was performed, and the result(s) confirmed.

No other analytical or quality issues were noted.

## Detection Summary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

### Client Sample ID: DUP

Lab Sample ID: 480-49523-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	76		5.0		ug/L	1		8260C	Total/NA
o-Chlorotoluene	91		5.0		ug/L	1		8260C	Total/NA
Chloroethane	21		5.0		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane - DL	210		5.0		ug/L	4		8260C	Total/NA

### Client Sample ID: MW-13R

Lab Sample ID: 480-49523-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	17		5.0		ug/L	5		8260C	Total/NA
1,1-Dichloroethane	67		5.0		ug/L	5		8260C	Total/NA
Chloroethane	43		5.0		ug/L	5		8260C	Total/NA
o-Chlorotoluene - DL	2500		34		ug/L	40		8260C	Total/NA

### Client Sample ID: MW-15R

Lab Sample ID: 480-49523-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.3		5.0		ug/L	1		8260C	Total/NA
Cyclohexane	68		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	42		5.0		ug/L	1		8260C	Total/NA
Xylenes, Total	48		15		ug/L	1		8260C	Total/NA

### Client Sample ID: MW-3S

Lab Sample ID: 480-49523-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	40000		430		ug/L	500		8260C	Total/NA
Methylene Chloride	320		220		ug/L	500		8260C	Total/NA

### Client Sample ID: MW-7R

Lab Sample ID: 480-49523-5

No Detections.

### Client Sample ID: MW-8R

Lab Sample ID: 480-49523-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	8.2		5.0		ug/L	1		8260C	Total/NA
o-Chlorotoluene - DL	210		5.0		ug/L	4		8260C	Total/NA

### Client Sample ID: MW-9R

Lab Sample ID: 480-49523-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	220		5.0		ug/L	5		8260C	Total/NA
1,1-Dichloroethane	82		5.0		ug/L	5		8260C	Total/NA
o-Chlorotoluene	97		5.0		ug/L	5		8260C	Total/NA
Chloroethane	23		5.0		ug/L	5		8260C	Total/NA

### Client Sample ID: TB

Lab Sample ID: 480-49523-8

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: DUP**

**Date Collected: 11/05/13 13:32**

**Date Received: 11/06/13 15:25**

**Lab Sample ID: 480-49523-1**

**Matrix: Water**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 12:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 12:35	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 12:35	1
<b>1,1-Dichloroethane</b>	<b>76</b>		5.0		ug/L			11/12/13 12:35	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 12:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 12:35	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 12:35	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 12:35	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 12:35	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 12:35	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 12:35	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 12:35	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 12:35	1
<b>o-Chlorotoluene</b>	<b>91</b>		5.0		ug/L			11/12/13 12:35	1
2-Hexanone	ND		25		ug/L			11/12/13 12:35	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 12:35	1
Acetone	ND		25		ug/L			11/12/13 12:35	1
Benzene	ND		5.0		ug/L			11/12/13 12:35	1
Bromoform	ND		5.0		ug/L			11/12/13 12:35	1
Bromomethane	ND		5.0		ug/L			11/12/13 12:35	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 12:35	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 12:35	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 12:35	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 12:35	1
<b>Chloroethane</b>	<b>21</b>		5.0		ug/L			11/12/13 12:35	1
Chloroform	ND		5.0		ug/L			11/12/13 12:35	1
Chloromethane	ND		5.0		ug/L			11/12/13 12:35	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 12:35	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 12:35	1
Cyclohexane	ND		5.0		ug/L			11/12/13 12:35	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 12:35	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 12:35	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 12:35	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 12:35	1
Methyl acetate	ND		5.0		ug/L			11/12/13 12:35	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 12:35	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 12:35	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 12:35	1
Styrene	ND		5.0		ug/L			11/12/13 12:35	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 12:35	1
Toluene	ND		5.0		ug/L			11/12/13 12:35	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 12:35	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 12:35	1
Trichloroethene	ND		5.0		ug/L			11/12/13 12:35	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 12:35	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 12:35	1
Xylenes, Total	ND		15		ug/L			11/12/13 12:35	1

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: DUP**

**Lab Sample ID: 480-49523-1**

**Date Collected: 11/05/13 13:32**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		66 - 137		11/12/13 12:35	1
Toluene-d8 (Surr)	94		71 - 126		11/12/13 12:35	1
4-Bromofluorobenzene (Surr)	101		73 - 120		11/12/13 12:35	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	210		5.0		ug/L			11/13/13 00:08	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/13/13 00:08	4
Toluene-d8 (Surr)	93		71 - 126		11/13/13 00:08	4
4-Bromofluorobenzene (Surr)	97		73 - 120		11/13/13 00:08	4

**Client Sample ID: MW-13R**

**Lab Sample ID: 480-49523-2**

**Date Collected: 11/05/13 13:00**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	17		5.0		ug/L			11/12/13 03:22	5
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 03:22	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 03:22	5
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 03:22	5
1,1-Dichloroethane	67		5.0		ug/L			11/12/13 03:22	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 03:22	5
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 03:22	5
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 03:22	5
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:22	5
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 03:22	5
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 03:22	5
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:22	5
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:22	5
2-Butanone (MEK)	ND		25		ug/L			11/12/13 03:22	5
2-Hexanone	ND		25		ug/L			11/12/13 03:22	5
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 03:22	5
Acetone	ND		25		ug/L			11/12/13 03:22	5
Benzene	ND		5.0		ug/L			11/12/13 03:22	5
Bromoform	ND		5.0		ug/L			11/12/13 03:22	5
Bromomethane	ND		5.0		ug/L			11/12/13 03:22	5
Carbon disulfide	ND		5.0		ug/L			11/12/13 03:22	5
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 03:22	5
Chlorobenzene	ND		5.0		ug/L			11/12/13 03:22	5
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 03:22	5
Chloroethane	43		5.0		ug/L			11/12/13 03:22	5
Chloroform	ND		5.0		ug/L			11/12/13 03:22	5
Chloromethane	ND		5.0		ug/L			11/12/13 03:22	5
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 03:22	5
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 03:22	5
Cyclohexane	ND		5.0		ug/L			11/12/13 03:22	5
Bromodichloromethane	ND		5.0		ug/L			11/12/13 03:22	5
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 03:22	5

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-13R**

**Lab Sample ID: 480-49523-2**

**Date Collected: 11/05/13 13:00**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0		ug/L			11/12/13 03:22	5
Isopropylbenzene	ND		5.0		ug/L			11/12/13 03:22	5
Methyl acetate	ND		5.0		ug/L			11/12/13 03:22	5
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 03:22	5
Methylcyclohexane	ND		5.0		ug/L			11/12/13 03:22	5
Methylene Chloride	ND		5.0		ug/L			11/12/13 03:22	5
Styrene	ND		5.0		ug/L			11/12/13 03:22	5
Tetrachloroethene	ND		5.0		ug/L			11/12/13 03:22	5
Toluene	ND		5.0		ug/L			11/12/13 03:22	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 03:22	5
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 03:22	5
Trichloroethene	ND		5.0		ug/L			11/12/13 03:22	5
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 03:22	5
Vinyl chloride	ND		5.0		ug/L			11/12/13 03:22	5
Xylenes, Total	ND		15		ug/L			11/12/13 03:22	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		66 - 137		11/12/13 03:22	5
Toluene-d8 (Surr)	94		71 - 126		11/12/13 03:22	5
4-Bromofluorobenzene (Surr)	96		73 - 120		11/12/13 03:22	5

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>o-Chlorotoluene</b>	<b>2500</b>		34		ug/L			11/12/13 12:59	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		66 - 137		11/12/13 12:59	40
Toluene-d8 (Surr)	93		71 - 126		11/12/13 12:59	40
4-Bromofluorobenzene (Surr)	94		73 - 120		11/12/13 12:59	40

**Client Sample ID: MW-15R**

**Lab Sample ID: 480-49523-3**

**Date Collected: 11/05/13 13:08**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,1-Dichloroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 03:46	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 03:46	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 03:46	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:46	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 03:46	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 03:46	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:46	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 03:46	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 03:46	1

TestAmerica Buffalo



# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-15R**

**Lab Sample ID: 480-49523-3**

**Date Collected: 11/05/13 13:08**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Chlorotoluene	ND		5.0		ug/L			11/12/13 03:46	1
2-Hexanone	ND		25		ug/L			11/12/13 03:46	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 03:46	1
Acetone	ND		25		ug/L			11/12/13 03:46	1
<b>Benzene</b>	<b>7.3</b>		5.0		ug/L			11/12/13 03:46	1
Bromoform	ND		5.0		ug/L			11/12/13 03:46	1
Bromomethane	ND		5.0		ug/L			11/12/13 03:46	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 03:46	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 03:46	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 03:46	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 03:46	1
Chloroethane	ND		5.0		ug/L			11/12/13 03:46	1
Chloroform	ND		5.0		ug/L			11/12/13 03:46	1
Chloromethane	ND		5.0		ug/L			11/12/13 03:46	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 03:46	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 03:46	1
<b>Cyclohexane</b>	<b>68</b>		5.0		ug/L			11/12/13 03:46	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 03:46	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 03:46	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 03:46	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 03:46	1
Methyl acetate	ND		5.0		ug/L			11/12/13 03:46	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 03:46	1
<b>Methylcyclohexane</b>	<b>42</b>		5.0		ug/L			11/12/13 03:46	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 03:46	1
Styrene	ND		5.0		ug/L			11/12/13 03:46	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 03:46	1
Toluene	ND		5.0		ug/L			11/12/13 03:46	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 03:46	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 03:46	1
Trichloroethene	ND		5.0		ug/L			11/12/13 03:46	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 03:46	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 03:46	1
<b>Xylenes, Total</b>	<b>48</b>		15		ug/L			11/12/13 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/12/13 03:46	1
Toluene-d8 (Surr)	95		71 - 126		11/12/13 03:46	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/12/13 03:46	1

**Client Sample ID: MW-3S**

**Lab Sample ID: 480-49523-4**

**Date Collected: 11/05/13 13:22**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		410		ug/L			11/12/13 13:23	500
1,1,2,2-Tetrachloroethane	ND		110		ug/L			11/12/13 13:23	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		160		ug/L			11/12/13 13:23	500
1,1,2-Trichloroethane	ND		120		ug/L			11/12/13 13:23	500

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-3S**

**Lab Sample ID: 480-49523-4**

**Date Collected: 11/05/13 13:22**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		190		ug/L			11/12/13 13:23	500
1,2,4-Trichlorobenzene	ND		210		ug/L			11/12/13 13:23	500
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			11/12/13 13:23	500
1,2-Dibromoethane	ND		370		ug/L			11/12/13 13:23	500
1,2-Dichlorobenzene	ND		400		ug/L			11/12/13 13:23	500
1,2-Dichloroethane	ND		110		ug/L			11/12/13 13:23	500
1,2-Dichloropropane	ND		360		ug/L			11/12/13 13:23	500
1,3-Dichlorobenzene	ND		390		ug/L			11/12/13 13:23	500
1,4-Dichlorobenzene	ND		420		ug/L			11/12/13 13:23	500
2-Butanone (MEK)	ND		660		ug/L			11/12/13 13:23	500
<b>o-Chlorotoluene</b>	<b>40000</b>		430		ug/L			11/12/13 13:23	500
2-Hexanone	ND		620		ug/L			11/12/13 13:23	500
4-Methyl-2-pentanone (MIBK)	ND		1100		ug/L			11/12/13 13:23	500
Acetone	ND		1500		ug/L			11/12/13 13:23	500
Benzene	ND		210		ug/L			11/12/13 13:23	500
Bromoform	ND		130		ug/L			11/12/13 13:23	500
Bromomethane	ND		350		ug/L			11/12/13 13:23	500
Carbon disulfide	ND		95		ug/L			11/12/13 13:23	500
Carbon tetrachloride	ND		140		ug/L			11/12/13 13:23	500
Chlorobenzene	ND		380		ug/L			11/12/13 13:23	500
Chlorodibromomethane	ND		160		ug/L			11/12/13 13:23	500
Chloroethane	ND		160		ug/L			11/12/13 13:23	500
Chloroform	ND		170		ug/L			11/12/13 13:23	500
Chloromethane	ND		180		ug/L			11/12/13 13:23	500
cis-1,2-Dichloroethene	ND		410		ug/L			11/12/13 13:23	500
cis-1,3-Dichloropropene	ND		180		ug/L			11/12/13 13:23	500
Cyclohexane	ND		90		ug/L			11/12/13 13:23	500
Bromodichloromethane	ND		200		ug/L			11/12/13 13:23	500
Dichlorofluoromethane	ND		170		ug/L			11/12/13 13:23	500
Ethylbenzene	ND		370		ug/L			11/12/13 13:23	500
Isopropylbenzene	ND		400		ug/L			11/12/13 13:23	500
Methyl acetate	ND		250		ug/L			11/12/13 13:23	500
Methyl tert-butyl ether	ND		80		ug/L			11/12/13 13:23	500
Methylcyclohexane	ND		80		ug/L			11/12/13 13:23	500
<b>Methylene Chloride</b>	<b>320</b>		220		ug/L			11/12/13 13:23	500
Styrene	ND		370		ug/L			11/12/13 13:23	500
Tetrachloroethene	ND		180		ug/L			11/12/13 13:23	500
Toluene	ND		260		ug/L			11/12/13 13:23	500
trans-1,2-Dichloroethene	ND		450		ug/L			11/12/13 13:23	500
trans-1,3-Dichloropropene	ND		190		ug/L			11/12/13 13:23	500
Trichloroethene	ND		230		ug/L			11/12/13 13:23	500
Trichlorofluoromethane	ND		440		ug/L			11/12/13 13:23	500
Vinyl chloride	ND		450		ug/L			11/12/13 13:23	500
Xylenes, Total	ND		330		ug/L			11/12/13 13:23	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/12/13 13:23	500
Toluene-d8 (Surr)	93		71 - 126		11/12/13 13:23	500
4-Bromofluorobenzene (Surr)	100		73 - 120		11/12/13 13:23	500

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-7R**

**Lab Sample ID: 480-49523-5**

**Date Collected: 11/05/13 13:41**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,1-Dichloroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 04:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 04:33	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 04:33	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:33	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 04:33	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 04:33	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:33	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:33	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 04:33	1
o-Chlorotoluene	ND		5.0		ug/L			11/12/13 04:33	1
2-Hexanone	ND		25		ug/L			11/12/13 04:33	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 04:33	1
Acetone	ND		25		ug/L			11/12/13 04:33	1
Benzene	ND		5.0		ug/L			11/12/13 04:33	1
Bromoform	ND		5.0		ug/L			11/12/13 04:33	1
Bromomethane	ND		5.0		ug/L			11/12/13 04:33	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 04:33	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 04:33	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 04:33	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 04:33	1
Chloroethane	ND		5.0		ug/L			11/12/13 04:33	1
Chloroform	ND		5.0		ug/L			11/12/13 04:33	1
Chloromethane	ND		5.0		ug/L			11/12/13 04:33	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 04:33	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 04:33	1
Cyclohexane	ND		5.0		ug/L			11/12/13 04:33	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 04:33	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 04:33	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 04:33	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 04:33	1
Methyl acetate	ND		5.0		ug/L			11/12/13 04:33	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 04:33	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 04:33	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 04:33	1
Styrene	ND		5.0		ug/L			11/12/13 04:33	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 04:33	1
Toluene	ND		5.0		ug/L			11/12/13 04:33	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 04:33	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 04:33	1
Trichloroethene	ND		5.0		ug/L			11/12/13 04:33	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 04:33	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 04:33	1
Xylenes, Total	ND		15		ug/L			11/12/13 04:33	1

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Client Sample ID: MW-7R

Date Collected: 11/05/13 13:41

Date Received: 11/06/13 15:25

## Lab Sample ID: 480-49523-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		66 - 137		11/12/13 04:33	1
Toluene-d8 (Surr)	94		71 - 126		11/12/13 04:33	1
4-Bromofluorobenzene (Surr)	96		73 - 120		11/12/13 04:33	1

## Client Sample ID: MW-8R

Date Collected: 11/05/13 12:55

Date Received: 11/06/13 15:25

## Lab Sample ID: 480-49523-6

Matrix: Water

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 04:57	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 04:57	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 04:57	1
<b>1,1-Dichloroethane</b>	<b>8.2</b>		5.0		ug/L			11/12/13 04:57	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 04:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 04:57	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 04:57	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:57	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 04:57	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 04:57	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:57	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 04:57	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 04:57	1
2-Hexanone	ND		25		ug/L			11/12/13 04:57	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 04:57	1
Acetone	ND		25		ug/L			11/12/13 04:57	1
Benzene	ND		5.0		ug/L			11/12/13 04:57	1
Bromoform	ND		5.0		ug/L			11/12/13 04:57	1
Bromomethane	ND		5.0		ug/L			11/12/13 04:57	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 04:57	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 04:57	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 04:57	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 04:57	1
Chloroethane	ND		5.0		ug/L			11/12/13 04:57	1
Chloroform	ND		5.0		ug/L			11/12/13 04:57	1
Chloromethane	ND		5.0		ug/L			11/12/13 04:57	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 04:57	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 04:57	1
Cyclohexane	ND		5.0		ug/L			11/12/13 04:57	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 04:57	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 04:57	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 04:57	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 04:57	1
Methyl acetate	ND		5.0		ug/L			11/12/13 04:57	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 04:57	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 04:57	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 04:57	1
Styrene	ND		5.0		ug/L			11/12/13 04:57	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 04:57	1

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-8R**

**Lab Sample ID: 480-49523-6**

**Date Collected: 11/05/13 12:55**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.0		ug/L			11/12/13 04:57	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 04:57	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 04:57	1
Trichloroethene	ND		5.0		ug/L			11/12/13 04:57	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 04:57	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 04:57	1
Xylenes, Total	ND		15		ug/L			11/12/13 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		66 - 137		11/12/13 04:57	1
Toluene-d8 (Surr)	93		71 - 126		11/12/13 04:57	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/12/13 04:57	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>o-Chlorotoluene</b>	<b>210</b>		5.0		ug/L			11/12/13 13:47	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/12/13 13:47	4
Toluene-d8 (Surr)	93		71 - 126		11/12/13 13:47	4
4-Bromofluorobenzene (Surr)	97		73 - 120		11/12/13 13:47	4

**Client Sample ID: MW-9R**

**Lab Sample ID: 480-49523-7**

**Date Collected: 11/05/13 13:32**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,1,1-Trichloroethane</b>	<b>220</b>		5.0		ug/L			11/12/13 05:21	5
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 05:21	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 05:21	5
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 05:21	5
<b>1,1-Dichloroethane</b>	<b>82</b>		5.0		ug/L			11/12/13 05:21	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 05:21	5
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 05:21	5
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 05:21	5
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:21	5
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 05:21	5
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 05:21	5
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:21	5
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:21	5
2-Butanone (MEK)	ND		25		ug/L			11/12/13 05:21	5
<b>o-Chlorotoluene</b>	<b>97</b>		5.0		ug/L			11/12/13 05:21	5
2-Hexanone	ND		25		ug/L			11/12/13 05:21	5
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 05:21	5
Acetone	ND		25		ug/L			11/12/13 05:21	5
Benzene	ND		5.0		ug/L			11/12/13 05:21	5
Bromoform	ND		5.0		ug/L			11/12/13 05:21	5
Bromomethane	ND		5.0		ug/L			11/12/13 05:21	5
Carbon disulfide	ND		5.0		ug/L			11/12/13 05:21	5

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: MW-9R**

**Lab Sample ID: 480-49523-7**

**Date Collected: 11/05/13 13:32**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 05:21	5
Chlorobenzene	ND		5.0		ug/L			11/12/13 05:21	5
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 05:21	5
<b>Chloroethane</b>	<b>23</b>		5.0		ug/L			11/12/13 05:21	5
Chloroform	ND		5.0		ug/L			11/12/13 05:21	5
Chloromethane	ND		5.0		ug/L			11/12/13 05:21	5
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 05:21	5
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 05:21	5
Cyclohexane	ND		5.0		ug/L			11/12/13 05:21	5
Bromodichloromethane	ND		5.0		ug/L			11/12/13 05:21	5
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 05:21	5
Ethylbenzene	ND		5.0		ug/L			11/12/13 05:21	5
Isopropylbenzene	ND		5.0		ug/L			11/12/13 05:21	5
Methyl acetate	ND		5.0		ug/L			11/12/13 05:21	5
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 05:21	5
Methylcyclohexane	ND		5.0		ug/L			11/12/13 05:21	5
Methylene Chloride	ND		5.0		ug/L			11/12/13 05:21	5
Styrene	ND		5.0		ug/L			11/12/13 05:21	5
Tetrachloroethene	ND		5.0		ug/L			11/12/13 05:21	5
Toluene	ND		5.0		ug/L			11/12/13 05:21	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 05:21	5
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 05:21	5
Trichloroethene	ND		5.0		ug/L			11/12/13 05:21	5
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 05:21	5
Vinyl chloride	ND		5.0		ug/L			11/12/13 05:21	5
Xylenes, Total	ND		15		ug/L			11/12/13 05:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		66 - 137		11/12/13 05:21	5
Toluene-d8 (Surr)	96		71 - 126		11/12/13 05:21	5
4-Bromofluorobenzene (Surr)	98		73 - 120		11/12/13 05:21	5

**Client Sample ID: TB**

**Lab Sample ID: 480-49523-8**

**Date Collected: 11/05/13 00:00**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,1-Dichloroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 05:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 05:45	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 05:45	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:45	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 05:45	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 05:45	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:45	1

TestAmerica Buffalo

# Client Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

**Client Sample ID: TB**

**Lab Sample ID: 480-49523-8**

**Date Collected: 11/05/13 00:00**

**Matrix: Water**

**Date Received: 11/06/13 15:25**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 05:45	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 05:45	1
o-Chlorotoluene	ND		5.0		ug/L			11/12/13 05:45	1
2-Hexanone	ND		25		ug/L			11/12/13 05:45	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 05:45	1
Acetone	ND		25		ug/L			11/12/13 05:45	1
Benzene	ND		5.0		ug/L			11/12/13 05:45	1
Bromoform	ND		5.0		ug/L			11/12/13 05:45	1
Bromomethane	ND		5.0		ug/L			11/12/13 05:45	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 05:45	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 05:45	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 05:45	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 05:45	1
Chloroethane	ND		5.0		ug/L			11/12/13 05:45	1
Chloroform	ND		5.0		ug/L			11/12/13 05:45	1
Chloromethane	ND		5.0		ug/L			11/12/13 05:45	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 05:45	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 05:45	1
Cyclohexane	ND		5.0		ug/L			11/12/13 05:45	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 05:45	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 05:45	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 05:45	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 05:45	1
Methyl acetate	ND		5.0		ug/L			11/12/13 05:45	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 05:45	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 05:45	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 05:45	1
Styrene	ND		5.0		ug/L			11/12/13 05:45	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 05:45	1
Toluene	ND		5.0		ug/L			11/12/13 05:45	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 05:45	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 05:45	1
Trichloroethene	ND		5.0		ug/L			11/12/13 05:45	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 05:45	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 05:45	1
Xylenes, Total	ND		15		ug/L			11/12/13 05:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		66 - 137					11/12/13 05:45	1
Toluene-d8 (Surr)	93		71 - 126					11/12/13 05:45	1
4-Bromofluorobenzene (Surr)	97		73 - 120					11/12/13 05:45	1

TestAmerica Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-151332/8

Matrix: Water

Analysis Batch: 151332

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,1-Dichloroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/11/13 23:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/11/13 23:50	1
1,2-Dibromoethane	ND		5.0		ug/L			11/11/13 23:50	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/11/13 23:50	1
1,2-Dichloroethane	ND		5.0		ug/L			11/11/13 23:50	1
1,2-Dichloropropane	ND		5.0		ug/L			11/11/13 23:50	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/11/13 23:50	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/11/13 23:50	1
2-Butanone (MEK)	ND		25		ug/L			11/11/13 23:50	1
o-Chlorotoluene	ND		5.0		ug/L			11/11/13 23:50	1
2-Hexanone	ND		25		ug/L			11/11/13 23:50	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/11/13 23:50	1
Acetone	ND		25		ug/L			11/11/13 23:50	1
Benzene	ND		5.0		ug/L			11/11/13 23:50	1
Bromoform	ND		5.0		ug/L			11/11/13 23:50	1
Bromomethane	ND		5.0		ug/L			11/11/13 23:50	1
Carbon disulfide	ND		5.0		ug/L			11/11/13 23:50	1
Carbon tetrachloride	ND		5.0		ug/L			11/11/13 23:50	1
Chlorobenzene	ND		5.0		ug/L			11/11/13 23:50	1
Chlorodibromomethane	ND		5.0		ug/L			11/11/13 23:50	1
Chloroethane	ND		5.0		ug/L			11/11/13 23:50	1
Chloroform	ND		5.0		ug/L			11/11/13 23:50	1
Chloromethane	ND		5.0		ug/L			11/11/13 23:50	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/11/13 23:50	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/11/13 23:50	1
Cyclohexane	ND		5.0		ug/L			11/11/13 23:50	1
Bromodichloromethane	ND		5.0		ug/L			11/11/13 23:50	1
Dichlorofluoromethane	ND		5.0		ug/L			11/11/13 23:50	1
Ethylbenzene	ND		5.0		ug/L			11/11/13 23:50	1
Isopropylbenzene	ND		5.0		ug/L			11/11/13 23:50	1
Methyl acetate	ND		5.0		ug/L			11/11/13 23:50	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/11/13 23:50	1
Methylcyclohexane	ND		5.0		ug/L			11/11/13 23:50	1
Methylene Chloride	ND		5.0		ug/L			11/11/13 23:50	1
Styrene	ND		5.0		ug/L			11/11/13 23:50	1
Tetrachloroethene	ND		5.0		ug/L			11/11/13 23:50	1
Toluene	ND		5.0		ug/L			11/11/13 23:50	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/11/13 23:50	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/11/13 23:50	1
Trichloroethene	ND		5.0		ug/L			11/11/13 23:50	1
Trichlorofluoromethane	ND		5.0		ug/L			11/11/13 23:50	1
Vinyl chloride	ND		5.0		ug/L			11/11/13 23:50	1
Xylenes, Total	ND		15		ug/L			11/11/13 23:50	1

TestAmerica Buffalo



# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-151332/8

Matrix: Water

Analysis Batch: 151332

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		66 - 137		11/11/13 23:50	1
Toluene-d8 (Surr)	94		71 - 126		11/11/13 23:50	1
4-Bromofluorobenzene (Surr)	96		73 - 120		11/11/13 23:50	1

Lab Sample ID: LCS 480-151332/5

Matrix: Water

Analysis Batch: 151332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	24.6		ug/L		98	71 - 129
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	80 - 124
1,2-Dichloroethane	25.0	24.9		ug/L		99	75 - 127
Benzene	25.0	24.3		ug/L		97	71 - 124
Chlorobenzene	25.0	26.0		ug/L		104	72 - 120
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	74 - 124
Ethylbenzene	25.0	24.9		ug/L		100	77 - 123
Methyl tert-butyl ether	25.0	24.1		ug/L		96	64 - 127
Tetrachloroethene	25.0	30.1		ug/L		120	74 - 122
Toluene	25.0	25.1		ug/L		100	80 - 122
trans-1,2-Dichloroethene	25.0	24.6		ug/L		98	73 - 127
Trichloroethene	25.0	27.1		ug/L		108	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	99		73 - 120

Lab Sample ID: MB 480-151450/6

Matrix: Water

Analysis Batch: 151450

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,1-Dichloroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 11:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 11:58	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 11:58	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 11:58	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 11:58	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 11:58	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 11:58	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 11:58	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 11:58	1
o-Chlorotoluene	ND		5.0		ug/L			11/12/13 11:58	1
2-Hexanone	ND		25		ug/L			11/12/13 11:58	1

TestAmerica Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-151450/6

Matrix: Water

Analysis Batch: 151450

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 11:58	1
Acetone	ND		25		ug/L			11/12/13 11:58	1
Benzene	ND		5.0		ug/L			11/12/13 11:58	1
Bromoform	ND		5.0		ug/L			11/12/13 11:58	1
Bromomethane	ND		5.0		ug/L			11/12/13 11:58	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 11:58	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 11:58	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 11:58	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 11:58	1
Chloroethane	ND		5.0		ug/L			11/12/13 11:58	1
Chloroform	ND		5.0		ug/L			11/12/13 11:58	1
Chloromethane	ND		5.0		ug/L			11/12/13 11:58	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 11:58	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 11:58	1
Cyclohexane	ND		5.0		ug/L			11/12/13 11:58	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 11:58	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 11:58	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 11:58	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 11:58	1
Methyl acetate	ND		5.0		ug/L			11/12/13 11:58	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 11:58	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 11:58	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 11:58	1
Styrene	ND		5.0		ug/L			11/12/13 11:58	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 11:58	1
Toluene	ND		5.0		ug/L			11/12/13 11:58	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 11:58	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 11:58	1
Trichloroethene	ND		5.0		ug/L			11/12/13 11:58	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 11:58	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 11:58	1
Xylenes, Total	ND		15		ug/L			11/12/13 11:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/12/13 11:58	1
Toluene-d8 (Surr)	94		71 - 126		11/12/13 11:58	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/12/13 11:58	1

Lab Sample ID: LCS 480-151450/4

Matrix: Water

Analysis Batch: 151450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	23.6		ug/L		94	71 - 129
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 127
Benzene	25.0	23.6		ug/L		94	71 - 124
Chlorobenzene	25.0	24.8		ug/L		99	72 - 120

TestAmerica Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-151450/4

Matrix: Water

Analysis Batch: 151450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	74 - 124
Ethylbenzene	25.0	24.0		ug/L		96	77 - 123
Methyl tert-butyl ether	25.0	25.5		ug/L		102	64 - 127
Tetrachloroethene	25.0	26.4		ug/L		106	74 - 122
Toluene	25.0	23.3		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	73 - 127
Trichloroethene	25.0	25.7		ug/L		103	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		66 - 137
Toluene-d8 (Surr)	95		71 - 126
4-Bromofluorobenzene (Surr)	100		73 - 120

Lab Sample ID: MB 480-151577/6

Matrix: Water

Analysis Batch: 151577

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,1,2-Trichloroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,1-Dichloroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/12/13 23:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/12/13 23:20	1
1,2-Dibromoethane	ND		5.0		ug/L			11/12/13 23:20	1
1,2-Dichlorobenzene	ND		5.0		ug/L			11/12/13 23:20	1
1,2-Dichloroethane	ND		5.0		ug/L			11/12/13 23:20	1
1,2-Dichloropropane	ND		5.0		ug/L			11/12/13 23:20	1
1,3-Dichlorobenzene	ND		5.0		ug/L			11/12/13 23:20	1
1,4-Dichlorobenzene	ND		5.0		ug/L			11/12/13 23:20	1
2-Butanone (MEK)	ND		25		ug/L			11/12/13 23:20	1
o-Chlorotoluene	ND		5.0		ug/L			11/12/13 23:20	1
2-Hexanone	ND		25		ug/L			11/12/13 23:20	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			11/12/13 23:20	1
Acetone	ND		25		ug/L			11/12/13 23:20	1
Benzene	ND		5.0		ug/L			11/12/13 23:20	1
Bromoform	ND		5.0		ug/L			11/12/13 23:20	1
Bromomethane	ND		5.0		ug/L			11/12/13 23:20	1
Carbon disulfide	ND		5.0		ug/L			11/12/13 23:20	1
Carbon tetrachloride	ND		5.0		ug/L			11/12/13 23:20	1
Chlorobenzene	ND		5.0		ug/L			11/12/13 23:20	1
Chlorodibromomethane	ND		5.0		ug/L			11/12/13 23:20	1
Chloroethane	ND		5.0		ug/L			11/12/13 23:20	1
Chloroform	ND		5.0		ug/L			11/12/13 23:20	1
Chloromethane	ND		5.0		ug/L			11/12/13 23:20	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 23:20	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 23:20	1

TestAmerica Buffalo

# QC Sample Results

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-151577/6

Matrix: Water

Analysis Batch: 151577

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		5.0		ug/L			11/12/13 23:20	1
Bromodichloromethane	ND		5.0		ug/L			11/12/13 23:20	1
Dichlorofluoromethane	ND		5.0		ug/L			11/12/13 23:20	1
Ethylbenzene	ND		5.0		ug/L			11/12/13 23:20	1
Isopropylbenzene	ND		5.0		ug/L			11/12/13 23:20	1
Methyl acetate	ND		5.0		ug/L			11/12/13 23:20	1
Methyl tert-butyl ether	ND		5.0		ug/L			11/12/13 23:20	1
Methylcyclohexane	ND		5.0		ug/L			11/12/13 23:20	1
Methylene Chloride	ND		5.0		ug/L			11/12/13 23:20	1
Styrene	ND		5.0		ug/L			11/12/13 23:20	1
Tetrachloroethene	ND		5.0		ug/L			11/12/13 23:20	1
Toluene	ND		5.0		ug/L			11/12/13 23:20	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			11/12/13 23:20	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			11/12/13 23:20	1
Trichloroethene	ND		5.0		ug/L			11/12/13 23:20	1
Trichlorofluoromethane	ND		5.0		ug/L			11/12/13 23:20	1
Vinyl chloride	ND		5.0		ug/L			11/12/13 23:20	1
Xylenes, Total	ND		15		ug/L			11/12/13 23:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		66 - 137		11/12/13 23:20	1
Toluene-d8 (Surr)	95		71 - 126		11/12/13 23:20	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/12/13 23:20	1

Lab Sample ID: LCS 480-151577/4

Matrix: Water

Analysis Batch: 151577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	23.0		ug/L		92	71 - 129
1,2-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	24.4		ug/L		98	75 - 127
Benzene	25.0	23.0		ug/L		92	71 - 124
Chlorobenzene	25.0	24.3		ug/L		97	72 - 120
cis-1,2-Dichloroethene	25.0	23.5		ug/L		94	74 - 124
Ethylbenzene	25.0	23.4		ug/L		94	77 - 123
Methyl tert-butyl ether	25.0	24.4		ug/L		98	64 - 127
Tetrachloroethene	25.0	25.8		ug/L		103	74 - 122
Toluene	25.0	23.0		ug/L		92	80 - 122
trans-1,2-Dichloroethene	25.0	23.5		ug/L		94	73 - 127
Trichloroethene	25.0	24.9		ug/L		99	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		66 - 137
Toluene-d8 (Surr)	92		71 - 126
4-Bromofluorobenzene (Surr)	100		73 - 120

TestAmerica Buffalo

# Certification Summary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13 *
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13 *
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

## Method Summary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## Sample Summary

Client: Waste Management  
Project/Site: ChemTrol Site - Annual Groundwater

TestAmerica Job ID: 480-49523-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-49523-1	DUP	Water	11/05/13 13:32	11/06/13 15:25
480-49523-2	MW-13R	Water	11/05/13 13:00	11/06/13 15:25
480-49523-3	MW-15R	Water	11/05/13 13:08	11/06/13 15:25
480-49523-4	MW-3S	Water	11/05/13 13:22	11/06/13 15:25
480-49523-5	MW-7R	Water	11/05/13 13:41	11/06/13 15:25
480-49523-6	MW-8R	Water	11/05/13 12:55	11/06/13 15:25
480-49523-7	MW-9R	Water	11/05/13 13:32	11/06/13 15:25
480-49523-8	TB	Water	11/05/13 00:00	11/06/13 15:25

## Chain of Custody Record

<b>Client Information</b> Client Contact: Mr. Mark Snyder Company: Waste Management Address: 425 Perinton Parkway City: Fairport State/Zip: NY, 14450 Phone: 585-223-6922(Tel) 713-286-7554(Fax) Email: msnyder@wm.com Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Annual Groundwater Site: New Hampshire		Sampler: <i>pppr</i> Lab PM: VanDette, Ryan T E-Mail: ryan.vandette@testamericainc.com Carrier Tracking No(s): COC No: 480-31496-4273.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: Purchase Order not requir WO #: Project #: 48002447 SSOW#:		<b>Analysis Requested</b>	
<b>Sample Identification</b> DUP MW-13R MW-15R MW-3S MW-7R MW-8R MW-9R TB	Sample Date 11-5-13 13:00 13:08 13:22 13:41 12:58 13:32 0830	Sample Type (C=Comp, G=grab) G 1 1 1 1 1 1 1	Matrix (W=water, S=solid, O=oil, BT=Tissue, AA=Air) Water Water Water Water Water Water Water Water
Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8260B - (MOD) Local Method A		Total Number of containers Special Instructions/Note: <i>Rep taken</i>	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
<b>Special Instructions/QC Requirements:</b>			
Empty Kit Relinquished by: <i>Thomas M...</i> Relinquished by: <i>Thomas M...</i> Relinquished by:		Date/Time: 11-5-13/15:25 Date/Time: Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 3.5	