

August 9, 2018

Mr. John Sager
Wisconsin Department of Natural Resources
1701 N. 4th Street
Superior, WI 54880

Re: Annual Groundwater Monitoring Report
Former Minocqua Cleaners State Lead Project, St. Germain St., Minocqua, WI
WDNR BRRTs: 02-44-000052

Dear John:

This report presents the results of the April 2017, October 2017, and April 2018 semi-annual groundwater sampling at the former Minocqua Cleaners State Lead Project. It also includes information on the replacement of Extraction Well EXW-4. The work was performed by MSA Professional Services, Inc. (MSA) for the Wisconsin Department of Natural Resources (WDNR) under Contract 37000-0000006751.

The semi-annual sampling was performed as described in the *Proposed Scope of Work for Budget Approval* letters dated February 19, 2016 and November 29, 2017. Groundwater samples were collected from 19 monitoring wells, Extraction Wells #4 and #6 (if they were operational), the post-treatment discharge (labeled GW Outfall), and Municipal Well #3. The monitoring and municipal well locations are shown on attached Figures 2 and 3.

Groundwater extraction well EXW-4 was shut down on March 3, 2017 when it was determined that it was pumping sand. It was therefore not operational at the time of the April 2017 sampling event. However, the extraction well had been replaced and was operational for the October 2017 and April 2018 events. When operational, extraction well EXW-4 reportedly has pumped at a range of approximately 100 to 60 gpm, and well EXW-6 pumps at approximately 15 gpm, respectively. Municipal Well #3 was sampled during all three sampling events. According to Lakeland Sanitary District staff, Well #3 has not been routinely used during the last several years and is more recently only turned on for sampling and quarterly testing.

Replacement of EXW-4

As mentioned above, extraction well extraction well EXW-4 was shut down on March 3, 2017 after pumping sand. Well EXW-4 is located on Pine Street near the remediation system collection manhole and cascading weir that is used to treat pumped groundwater.

MSA was requested to obtain costs for the well replacement and abandon the failed well. The well installation contractor selected to perform the well replacement was Ertl Enterprises, Inc., dba/ Richardson Well Drilling, who previously installed the EXW-4 well pumps in 2013, and also performed other work at the site that was coordinated

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by Lakeland Sanitary District. The replacement of well EXW-4 was performed with a separate WDNR contract with the new well installed north of the failed well on Pine Street. Following the installation of the well pump and above surface piping, the new well EXW-4 was started on May 19, 2017. Well EXW-4 experienced pump problems in March 2018 and had a 3 hp replacement pump installed by Ertl Enterprises prior to the April 2018 sample event.

Groundwater Monitoring Results

Groundwater Flow Direction

Table 1 presents a summary of groundwater elevation data collected since November 2004. Figure 4 shows the water table contours based on the April 2018 data. The groundwater flow direction at the water table was generally southeast from the source property toward Municipal Wells #3 and #4. An apparent cone of depression was observed in the elevation contours near extraction well EXW-6, located on the source property, which was continuously pumping at approximately 15 gpm. This flow direction has been consistent throughout the project.

The groundwater flow direction in the deeper piezometer wells was also consistent during this period with previous directions, primarily to the southeast.

Monitoring Results

Table 2 summarizes the groundwater sample results for this site. The analytical laboratory reports for the April and October 2017, and April 2018 sample rounds are attached. Graphs of concentrations versus time for wells B-13 and MW-19, the two wells with the highest concentrations, are also attached.

Tetrachloroethene (PCE) was detected above the NR 140 enforcement standard (ES) of 5 µg/L at water table wells B-13 (ranging from 35 to 64 ug/L during this period) and in MW-21 (4.4 to 88 ug/L). The 88 ug/L PCE at MW-21 was detected in the April 2018 sample, and represents the highest PCE concentration detected in this well (located on the source property) since the well was installed in 2008. PCE was detected above the NR 140 Preventive Action Limit (PAL) of 0.5 µg/L at wells B-3A (<0.37 to 0.71 µg/L), B-12 (0.91 ug/L in a duplicate sample in April 2017), B-13A (0.81 ug/L in the October 2017 sample), B-13B (<0.37 to 1.3 ug/L), MW-17 (<0.37 to 2.5 ug/L), MW-18 (<0.37 to 1.1 ug/L), MW-18A (0.98 to 1.2 ug/L), MW-19 (2.1 to 4.6 ug/L), and MW-20 (3.2 to 4.6 ug/L) during this period.

Trichloroethene (TCE) was detected above the NR 140 enforcement standard (ES) of 5 µg/L at monitoring wells B-12 (8.6 and 9.0 ug/L in April 2017 and a duplicate from the same date, but not detected above the detection limit of 0.16 ug/L in the two subsequent 2018 sample rounds), B-13 (4.8 to 43 µg/L), MW-19 (0.94 to 72 ug/L), and MW-21A (4.2 to 7.0 ug/L). PAL exceedances of TCE were detected at wells MW-13A (0.43 ug/L in April 2018), MW-17 (<0.16 to 1.7 ug/L), MW-18A (0.84 to 1.0 ug/L), and MW-21 (2.3 ug/L in April 2018) during this period.

Vinyl chloride was detected above the ES of 0.2 µg/L at wells B-13 (<0.20 to 1.1 ug/L), MW-17 (4.5 to 22 ug/L), MW-18 (0.48 in October 2017), MW-19 (4.7 to 53 ug/L), and MW-21A (4.4 to 5.6 ug/L) in this report period.

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In general, concentrations appear to be stable to decreasing across the site. The increases previously noted at well B-13, a water table well located downgradient of the source area on the east side of St. Germain Street, appear to be seasonally related in that most of them occur in the Fall sampling events. Concentrations are somewhat erratic at MW-19 and other wells located in the source area, and may reflect differences in water levels, precipitation and leaching through source area soils.

Figure 5 illustrates the contaminant concentrations in April 2018 (or last sample date) across the subject area.

Extraction Wells

Extraction well EXW-6 discharge had ES exceedances for PCE (6.0 to 76 ug/L), TCE (10 to 13 ug/L), and vinyl chloride (1.1 to 1.3 µg/L) during this reporting period. The cis-1,2-dichloroethylene (DCA) concentration ranged from 18 to 19 ug/L, exceeding the PAL of 7 ug/L. The contaminant concentrations detected in extraction well EXW-6 appear to be stable to slowly decreasing since pumping began in December 2006.

Contaminant concentrations at extraction well EXW-4 (pumping during the October 2017 and April 2018 sampling activities) remained below the ES during this period. No PCE was detected in this well during this period, but TCE was detected at 1.3 to 1.4 ug/L. Vinyl chloride has not been detected in the discharge from this well since November 2006.

Municipal Well #3 (LSD Well #3)

No VOCs were detected in the three sample rounds collected during this period, and have not been detected since August 2006. The well was pumping on the dates the samples were collected.

Groundwater Discharge Sample (GW Outfall)

No ES exceedances were detected in the discharge sample. Tetrachloroethene has not been detected since November 2016. TCE was detected during this period at concentrations ranging from 0.50 to 1.1 ug/L. Vinyl chloride has not been detected in the discharge sample. Cis-1,2-dichloroethene was detected at 0.87 to 1.8 ug/L during this period. The results of this sampling are also included in Table 2 (GW Outfall).

Summary

The following was observed during this period.

- No VOCs have been detected in Municipal Well #3 since the August 2006 sample event.

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- Enforcement standard exceedances remain in the source area and immediately downgradient, but have greatly decreased since the original sampling events in 1993 to 1995.
- The highest concentrations of PCE and TCE remain at well MW-19 near the source area, and at B-13, which is located on the east side of St. Germain Street and downgradient of the source area.
- High concentrations of vinyl chloride are present at MW-17 in the source area, but TCE and PCE concentrations are low to no detect in this well. The vinyl chloride concentration appears to be decreasing in this well. Vinyl chloride is also present at higher concentrations at MW-19 in the source area, but decreased in the two April sample rounds during this period, possibly indicating it has stabilized in the source area. At downgradient well B-13, the vinyl chloride concentration has increased in the Fall sample event for the past few years, and may be seasonally affected by rainfall or water table elevations.
- There were no ES exceedances detected in pumped water at the downgradient extraction well EXW-4. The only PAL exceedance during this period in this well was for TCE.
- Extraction well EXW-6 continued to extract PCE, TCE and vinyl chloride concentrations exceeding the ES during this period.

Recommendations

MSA recommends that the remedial objectives at this site be reviewed and discussed. If it is determined that the remedial objective is to reduce contaminant concentrations in the source area further, it may be more cost-effective to implement alternate remedial actions, such as an injection, to obtain remedial goals versus continued operation of the current pump and treat system.

Incomplete reductive dechlorination, as shown by formation of cis-1,2-dichloroethene and vinyl chloride, may indicate that either insufficient electron donor material is present, or that bacteria that support complete breakdown of PCE to ethenes are not present at this site. Injection of additional electron donor material or microbial colonies may enhance the bioremediation of the remaining contamination at this site.

Extraction well EXW-6 should continue to operate to control contaminant migration from the source area and reduce aquifer concentrations, until such time as another remedial action is implemented. The WDNR has requested that extraction well EXW-4 continue to operate as an intercept well to prevent contamination from reaching the downgradient municipal wells.

The current semi-annual groundwater monitoring frequency appears to be appropriate for this site. Based on specific wells results and trends, sampling at some of the wells could be reduced to an annual frequency.

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Conclusions

The next round of semi-annual groundwater samples will be collected in October 2018. Please contact Richard Lyster, project manager, at (608) 355-8901 if you have questions or comments concerning the report. Thank you for allowing MSA to assist the Department with this project.

Sincerely,

MSA Professional Services, Inc.



Jayne Englebert, P.G.
Senior Hydrogeologist



Richard Lyster, P.G.
Team Leader/Project Manager

cc: Cully Akey, Superintendent, Lakeland Sanitary District (email copy)

List of Attachments

- Table 1 Groundwater Elevations
- Table 2 Groundwater Sample Analytical Results
- Graph, concentrations vs. time, well B-13
- Graph, concentrations vs. time, well MW-19
- Figure 1 Site Location Map
- Figure 2 Site Layout Map
- Figure 3 Well Location Map
- Figure 4 Groundwater Flow Direction, April 2018
- Figure 5 Groundwater Concentrations
- Analytical Reports for groundwater sampling

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethylene	ethene	Chloride	Elevation				
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
		Top of Casing Elevation = 1606.48 ft MSL									
B-1 (90')	12/01/99	ND	ND	ND	ND	ND					
	11/01/03	ND	ND	ND	ND	ND					
	12/06/04	<0.5	<0.4	<0.5	<0.6	<0.3	1576.77	8.68	1.29	126	309.9
	03/22/05	<0.60	<0.60	<0.4	<0.15	<0.12	1580.91	8.47	1.43	145	336.5
	08/31/05	<0.60	<0.60	<0.4	<0.15	<0.12	1580.85	7.21	1.06	147	399.2
	02/14/06	<0.60	<0.60	<0.4	<0.15	<0.12	1580.80	7.60	1.40	149	398.9
	05/22/06	<0.4	<0.4	<0.29	0.19	<0.15	1581.08	7.83	1.89	151	306.4
	08/08/06	<0.4	<0.4	<0.29	<0.15	<0.15	1574.87	8.27	1.27	173	374
	11/29/06	<0.4	<0.4	<0.29	<0.15	<0.15	1580.88	7.37	1.26		287
	02/26/07	<0.4	<0.4	<0.29	<0.15	<0.15	1581.47	8.14	1.28	155	370
	05/22/07	<0.4	<0.5	<0.4	<0.15	<0.15	1581.51	7.67	1.17		393
	08/21/07	<0.4	<0.5	<0.4	<0.15	<0.15	1575.19	6.84	0.42	160	432
	11/28/07	<0.4	<0.5	<0.4	<0.15	<0.15	1581.98	7.54	1.41	182	386
	07/28/08	<0.4	<0.5	<0.4	<0.15	<0.15	1580.83	7.62	1.13		411
	11/20/08	<0.4	<0.5	<0.4	<0.15	<0.15	1581.58	8.05	1.49	190	395
	02/11/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.13	7.12	1.64	245	398
	05/21/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.34	6.79	1.74	276	398
	08/05/09	<0.4	<0.5	<0.4	<0.15	<0.15	1580.62	7.26	1.04	172	407
	11/19/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.27	7.48	1.85	13.9	404
	02/25/10	<0.4	<0.5	<0.4	<0.15	<0.15	1581.38	7.94	1.48	129	385
	10/25/10	<0.5	<0.5	<0.5	<0.2	<0.2	1582.82	7.63	1.31	53	385
	04/26/11	<0.5	<0.5	<0.5	<0.2	<0.2	1582.21	8.14	1.97	76	411
	10/27/11	<0.50	<0.50	<0.50	<0.20	<0.20	1582.42	7.33	2.02	181	375
	04/27/12	<0.12	<0.25	<0.17	<0.19	<0.10	1582.61	6.81	2.01	169	334
	01/08/14	<0.12	<0.25	<0.17	<0.19	<0.10	1582.40	7.35	1.93	161	356
	04/10/14	<0.12	<0.25	<0.17	<0.19	<0.10	1581.92	6.96	2.38		337
	10/28/14	<0.12	<0.25	<0.17	<0.19	<0.10	1583.16	7.36	1.41		317
04/27/15	<0.12	<0.25	<0.17	<0.19	<0.10	1582.50	7.18	2.39		368	
10/20/15	<0.41	<0.35	<0.37	<0.16	<0.20	1582.71	7.83	1.64	215	386	
05/25/16	<0.41	<0.35	<0.37	<0.16	<0.20	1582.85	7.89	1.78	282	399	
11/16/16	<0.41	<0.35	<0.37	<0.16	<0.20	1583.04	7.72	1.93	223	407	
04/27/17	<0.41	<0.35	<0.37	<0.16	<0.20	1583.45	8.36	2.15	230	406	
10/31/17	<0.41	<0.35	<0.37	<0.16	<0.20	1583.00	8.06	1.34	313	404	
04/26/18	<0.41	<0.35	<0.37	<0.16	<0.20	1582.10	7.31	2.19	237	408	
		Top of Casing Elevation = 1606.66 ft MSL									
B-1A (60')	12/06/04	<0.5	<0.4	<0.5	<0.6	<0.3	1580.27	8.44	1.08	173	463.4
	03/22/05	<0.60	<0.60	<0.4	<0.15	<0.12	1581.05	8.23	1.88	138	399.7
	08/31/05	<0.60	<0.60	<0.4	<0.15	<0.12	1580.98	6.70	2.26	274	348
	02/14/06	<0.60	<0.60	<0.4	<0.15	<0.12	1580.96	7.30	1.70	157	348.2
	05/22/06	<0.4	<0.4	<0.29	<0.15	<0.15	1581.25	7.41	1.31	154	360
	08/08/06	<0.4	<0.4	0.56	0.44	<0.15	1578.71	7.58	0.91	522	378
	11/29/06	<0.4	<0.4	<0.29	>0.15	<0.15	1580.45	7.59	1.19		328
	02/26/07	<0.4	<0.4	<0.29	>0.15	<0.15	1581.19	7.05	1.31	436	455
	05/22/07	<0.4	<0.5	<0.4	<0.15	<0.15	1581.65	7.56	1.27		487
	08/21/07	<0.4	<0.5	<0.4	<0.15	<0.15	1579.30	6.73	1.97	448	559
	11/28/07	<0.4	<0.5	<0.4	<0.15	<0.15	1582.00	7.01	1.33	349	501
	07/28/08	<0.4	<0.5	<0.4	<0.15	<0.15	1580.93	7.37	1.86	335	476
	11/20/08	<0.4	<0.5	<0.4	<0.15	<0.15	1581.59	8.02	1.92	234	452
	02/11/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.13	7.09	1.56	311	388
	05/21/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.50	6.91	1.39	363	468
	08/05/09	<0.4	<0.5	<0.4	<0.15	<0.15	1580.72	6.64	1.86	410	471
	11/19/09	<0.4	<0.5	<0.4	<0.15	<0.15	1581.47	7.06	1.81	301	530
	02/25/10	<0.4	<0.5	<0.4	<0.15	<0.15	1581.59	7.79	1.68	219	519
	05/11/10	<0.25	<0.25	<0.3	<0.21	<0.22	1581.47	7.85	1.31	401	502
	10/25/10	<0.5	<0.5	<0.5	<0.2	<0.2	1582.84	7.04	1.91	261	502
	04/26/11	<0.5	<0.5	<0.5	<0.2	<0.2	1582.19	8.16	1.92	240	426
	10/27/11	<0.50	<0.50	<0.50	<0.20	<0.20	1582.43	7.28	1.82	188	526
	04/27/12	<0.12	<0.25	<0.17	<0.19	<0.10	1582.64	6.87	2.11	289	483
	01/08/14	<0.12	<0.25	<0.17	<0.19	<0.10	1582.57	7.23	1.89	222	530
	04/10/14	<0.12	<0.25	<0.17	<0.19	<0.10	1581.84	6.84	1.97		506
	10/28/14	<0.12	<0.25	<0.17	<0.19	<0.10	1583.20	7.12	1.44		447
	04/27/15	<0.12	<0.25	<0.17	<0.19	<0.10	1582.50	7.01	2.08		419
10/20/15	<0.41	<0.35	<0.37	<0.16	<0.20	1582.92	7.40	1.57	343	509	
05/25/16	<0.41	<0.35	<0.37	<0.16	<0.20	1582.85	7.55	0.78	400	520	
11/16/16	<0.41	<0.35	<0.37	<0.16	<0.20	1583.05	7.77	1.80	294	589	
04/27/17	<0.41	<0.35	<0.37	<0.16	<0.20	1583.42	8.20	2.02	281	608	
10/31/17	<0.41	<0.35	<0.37	<0.16	<0.20	1583.01	7.71	1.36	291	546	
04/26/18	<0.41	<0.35	<0.37	<0.16	<0.20	1582.11	7.25	2.56	243	536	

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro	Vinyl	GW Elevation	pH	DO	Redox	Conductivity	
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride						
ES		70	100	5	5	0.2						
PAL		7	20	0.5	0.5	0.02						
B-15 (42')	12/07/04	Top of Casing Elevation = 1601.77 ft MSL						1583.36	8.73	1.19	136	410.9
EXW-2	06/01/00	4.3	ND	3.2	7.9	<0.16>						
	01/01/01	4	<0.18>	3.4	7.3	<0.18>						
	12/01/01	4.5	ND	5.6	8.6	ND						
	06/01/02	4.9	<0.21>	1.9	7.3	ND						
	12/01/02	5	ND	1.2	5.3	ND						
	11/01/03	6.8	ND	3.4	6.9	0.53						
	12/06/04	5.2	<0.4	1.9	4.5	<0.3						
	03/23/05	<0.6	<0.6	<0.4	<0.15	<0.12		9.03	1.56	-64	775.3	
	09/01/05	<0.6	<0.6	<0.4	<0.15	<0.12		7.46	1.15	19	562.3	
	02/15/06	<3.0	<3.0	<2.0	<0.75	<0.6		7.47	1.92	151	730.9	
	05/23/06	0.41	<0.4	0.33	0.35	<0.15		7.62	0.84	142	123.6	
	08/22/06	<0.4	<0.4	<0.29	<0.15	<0.15		8.72	1.38	78	144	
EXW-4	03/22/05	0.78	<0.6	0.87	1.2	<0.12						
	09/01/05	<0.6	<0.6	<0.4	<0.15	<0.12						
	05/23/06	9.1	<0.4	6	11	0.37		8.23	1.50	156	209.7	
	08/08/06	5.1	<0.4	4.1	5.5	0.17		8.59	1.76	159	222	
	11/29/06	4.1	<0.4	3.7	5.5	0.16		7.17	1.71		215	
	02/26/07	2.5	<0.4	2.5	3.2	<0.15		8.08	2.51	39	250	
	05/23/07	2.2	<0.5	2.3	2.8	<0.15		7.57	1.49		268	
	08/22/07	1.2	<0.5	1.3	1.6	<0.15		6.95	2.01	342	234	
	11/29/07	1.5	<0.5	1.6	2.2	<0.15		7.76	2.23	139	285	
	07/29/08	1.3	<0.5	0.55	2.1	<0.15		8.07	2.85	305	279	
	11/20/08	1	<0.5	0.7	1.5	<0.15		8.30	1.19	304	311	
	02/11/09	0.93	<0.5	0.44	1.2	<0.15		7.93	1.69	349	335	
	05/21/09	2.3	<0.5	1.2	2.6	<0.15		7.71	2.39	225	317	
	08/05/09	2	<0.5	1.1	2.1	<0.15		7.52	1.91	291	281	
	11/19/09	0.76	<0.5	0.61	1	<0.15		7.80	2.53	239	289	
	02/25/10	0.67	<0.5	0.5	0.77	<0.15		7.97	2.18	211	308	
	05/11/10	0.64	<0.25	0.45	0.7	<0.22		8.31	2.56	359	321	
	10/25/10	0.91	<0.5	0.96	1.1	<0.2		7.70	2.74	181	346	
	04/26/11	1.9	<0.50	0.61	2.1	<0.20		8.26	2.67	143	326	
	10/27/11	0.92	<0.50	<0.50	0.82	<0.20		7.11	2.08	176	355	
	04/27/12	<0.12	<0.25	<0.17	0.35	<0.10		7.15	2.13	172	349	
	01/08/14	0.67	<0.25	<0.17	0.62	<0.10		7.06	2.13	125	359	
	04/10/14	0.91	<0.25	<0.17	0.76	<0.10		6.71	2.33		376	
	10/28/14	0.99	<0.25	<0.17	0.99	<0.10		7.29	1.37		328	
	04/27/15	<0.12	<0.25	<0.17	1.7	<0.10		6.60	2.02		311	
	10/22/15	1.1	<0.35	<0.37	1.1	<0.20		7.48	2.14	246	375	
	05/25/16	1.7	<0.35	<0.37	1.8	<0.20		7.66	2.15	296	384	
	11/16/16	1.5	<0.35	<0.37	1.4	<0.20		8.01	4.04	259	272	
	10/31/17	1.9	<0.35	<0.37	1.4	<0.20		7.79	3.53	362	378	
	04/26/18	1.7	<0.35	<0.37	1.3	<0.20		7.09	3.16	256	377	
EXW-5	11/01/93	32	ND	48	48	ND						
	01/01/94	ND	ND	48	48	ND						
	07/01/94	6.2	ND	6.7	ND	14						
	01/01/95	35	ND	32	57	ND						
	06/01/95	ND	ND	96	110	19						
	01/01/96	18	ND	17	19	ND						
	06/01/96	28	1.7	2.4	20	ND						
	01/01/97	59	3.8	28	36	ND						
	10/01/97	68	ND	36	49	ND						
	04/01/98	58	ND	31	33	ND						
	11/01/98	110	ND	38	54	ND						
	06/01/99	150	ND	<9.3>	24	ND						
	12/01/99	2.5	ND	<0.42>	0.98	ND						
	06/01/00	160	1.6	19	32	ND						
	01/01/01	16	<0.29>	5.8	10	ND						
	12/01/01	19	ND	5.6	8.6	ND						
	06/02/02	54	ND	11	24	3.3						
	12/01/02	57	ND	8.6	18	ND						
	12/06/04	61	<0.4	<1.0	<1.2	11						
	03/23/05	38	<1.2	1.6	9	2.7		8.97	1.14	-72	417.5	
	09/01/05	29	<0.6	<0.40	0.48	2.1		7.16	1.06	64	112.7	
	02/15/06	33	<0.6	0.42	1.2	4.5		7.41	1.90	150	112.8	
	05/23/06	51	<0.8	4.5	8.9	5.2		7.49	1.81	145	160.5	
	08/08/06	33	0.62	1.7	3.3	3.7		8.44	0.97	80	128	
	11/29/06	33	0.46	17	18	7		7.38	1.19		168	
	02/26/07	2.3	<0.4	<0.29	1.4	0.4		7.60	1.01	110	146	
	05/22/07	1.5	<0.5	<0.4	0.35	0.4		7.69	1.34		168	
	08/22/07	1.5	<0.5	<0.4	0.21	1.3		6.69	2.14	121	116	
	11/29/07	2.7	<0.5	<0.4	0.25	1.2		7.35	1.84	88	106	
	07/29/08	2.3	<0.5	<0.4	<0.15	0.56		7.44	1.23	51	141	

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
EXW-6	02/26/07	43	1.1	23	19	2.4		7.90		293	224
	05/22/07	44	0.99	25	18	2.2		7.55	1.52		239
	08/22/07	34	0.67	16	12	1.6		6.65	2.34	231	225
	11/29/07	36	0.69	20	14	1.2		7.24	1.71	277	285
	07/29/08	32	0.55	23	14	0.79		7.45	1.87	137	228
	09/11/08	26	<0.5	16	12	0.69		7.87	2.23	254	224
	10/09/08	34	0.53	19	15	1.1		8.02	2.03	253	228
	11/20/08	27	<0.5	15	13	0.94		7.95	1.87	385	233
	12/17/08	23	<0.50	14	12	0.51		8.04	2.29	303	226
	02/11/09	25	<0.5	18	14	<0.15		8.02	1.98	377	240
	05/21/09	22	<0.5	16	13	0.77		7.56	2.12	356	230
	08/05/09	30	<0.5	16	13	1.9		6.70	2.37	351	241
	11/19/09	32	0.6	17	16	2.3		7.47	2.45	307	231
	02/25/10	22	<0.5	13	12	0.86		8.12	1.69	226	227
	05/11/10	23	0.42	13	11	2.3		7.86	1.62	278	234
	10/25/10	24	<0.5	13	13	3.2		7.28	1.73	221	249
	04/26/11	20	<0.50	13	12	1.4		8.28	2.33	304	269
	10/27/11	24	<0.50	16	16	2.4		7.06	1.42	216	270
	04/27/12	23	0.50	7.0	9.2	3.2		7.12	1.85	218	263
	01/08/14	19	<0.25	6.9	12	1.6		7.27	2.09	227	417
	04/10/14	<0.12	<0.25	<0.17	0.87	<0.10		6.59	2.17		444
10/28/14	18	<0.25	8.6	12	1.6		7.44	1.81		310	
04/27/15	18	<0.25	5.9	12	1.7		6.52	1.94		327	
10/20/15	16	<0.35	6.0	8.8	1.4		7.44	2.18	367	289	
05/25/16	24	1.3	<0.37	0.80	6.3		7.96	1.84	65	412	
11/16/16	17	<0.35	8.1	9.5	1.1		7.90	2.34	322	300	
04/27/17	19	<0.35	7.0	11	1.1		7.76	2.42	397	300	
10/31/17	18	<0.35	6.0	10	1.2		7.68	2.65	374	299	
04/26/18	19	<0.35	7.6	13	1.3		7.03	2.19	262	298	
MW-16	11/01/93	ND	ND	ND	ND	ND					
	01/01/94	ND	ND	ND	ND	ND					
	07/01/94	ND	ND	ND	ND	ND					
	01/01/95	ND	ND	ND	ND	ND					
	06/01/95	ND	ND	ND	ND	0.71					
	01/01/96	ND	ND	ND	ND	ND					
	06/06/96	ND	1.3	ND	ND	ND					
	01/01/97	ND	ND	ND	ND	ND					
	10/01/97	ND	ND	0.54	ND	ND					
	04/01/98	ND	ND	1	ND	ND					
	11/01/98	ND	ND	ND	ND	ND					
06/01/99	Lost Well										

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
Top of Casing Elevation = 1591.80 ft MSL											
MW-17	11/01/93	230	3.5	23	40	1.2					
(18')	01/01/94	400	ND	40	58	ND					
	07/01/94	380	ND	44	40	ND					
	01/01/95	12	ND	0.53	112	ND					
	06/01/95	ND	ND	380	53	12					
	01/01/96	180	40	32	31	ND					
	06/06/96	290	13	80	40	6.7					
	01/01/97	860	7	33	53	3.2					
	10/01/97	270									
	04/01/98	84	ND	11	9.4	ND					
	11/01/98	290	4.5	24	37	2.8					
	06/01/99	170	ND	<9.7>	23	ND					
	12/01/99	420	ND	ND	26	ND					
	06/01/00	220	ND	ND	ND	ND					
	01/01/01	270	<7.0>	ND	<8.7>	<4.4>					
	12/01/01	200	<5.0>	<5.2>	<4.8>	ND					
	06/01/02	180	<5.7	9.4	8.9	ND					
	12/01/02	230	ND	<13>	43	<5.1>					
	11/01/03	390	<13>	ND	ND	ND					
	12/07/04	220	7.5	6.8	14	4.7	1583.11	8.64	1.46	-32	230
	03/23/05	84	3.4	7.8	6.7	2.6	1582.17	8.90	1.76	16	252.4
	09/01/05	330	9.1	1.4	5	23	1582.31	6.65	1.78	204	240
	02/15/06	140	4.6	4.3	1.9	2.9	1582.12	7.32	1.75	153	196.4
	05/23/06	98	<4.0	5.9	5.8	4	1582.75	7.24	1.68	152	171.9
	08/08/06	290	5.7	7.9	12	12	1582.80	7.44	1.58	2.57	264
	11/29/06	190	4.6	11	25	8.7	1582.54	7.38	1.67		249
	02/26/07	230	4	<2.9	18	15	1582.82	7.16	1.49	216	253
	05/23/07	100	4.9	2.4	3	9.2	1583.11	7.66	1.88		236
	08/22/07	130	<2.5	6.1	18	10	1582.56	6.20	2.23	2.04	309
	11/29/07	110	4.5	3.8	5.8	11	1582.89	6.62	2.18	255	263
Qtr	07/29/08	100	6.7	4	3.5	12	1582.82	6.83	2.35	209	272
Pilot Study	09/11/08	180	3	4.3	22	18	1582.45	6.39	1.87	229	487
Pilot Study	10/09/08	150	3	<2.0	<0.75	14	1582.71	6.56	2.57	195	616
Qtr	11/21/2008	99	2.7	<2.0	<0.75	10	1582.59	7.08	1.55	150	633
Pilot Study	12/17/2008	120	5.4	<2.0	<0.75	14	1582.39	7.05	2.11	149	657
Qtr	2/11/2009	78	2.4	1.7	2.1	29	1582.41	7.43	1.37	225	426
Qtr	5/21/2009	63	3.5	1.3	0.72	49	1582.97	8.63	2.10	172	400
Pilot Study	8/5/2009	180	1.7	6.8	43	91	1582.26	5.98	2.90	181	512
Qtr	11/19/2009	8.6	<0.5	0.85	2.2	45	1582.67	6.28	2.10	182	494
	02/25/10	14	<0.5	0.85	0.35	41	1582.45	6.62	1.98	217	5.9
	05/11/10	11	0.25	0.41	0.24	26	1582.67	6.89	1.47	244	386
	10/25/10	6.5	<0.5	<0.5	1.4	41	1583.43	6.28	2.14	143	313
	04/26/11	6.7	<0.50	0.56	3.5	8.3	1583.05	7.44	2.27	87	249
	10/28/11	130	1.3	<0.50	12	110	1583.00	7.30	2.07	137	362
	04/27/12	10	<0.25	<0.17	0.50	16	1583.07	7.32	2.39	141	328
	01/08/14	33	2.0	0.55	5.0	91	1583.19	6.78	2.19	152	395
	04/10/14	30	1.2	<0.17	1.1	19	1583.42	6.82	2.34		237
	10/28/14	48	1.5	<0.17	0.38	55	1583.62	6.25	1.11		257
	04/27/15	23	1.4	<0.17	1.1	19	1583.11	6.67	1.96		255
	10/20/15	<0.42	2.3	<0.37	24	46	1583.29	6.58	1.95	187	450
	05/25/16	19	<0.35	<0.37	0.52	19	1583.39	6.48	2.15	238	164
	11/16/16	64	2.3	<0.37	<0.16	42	1583.43	7.19	1.65	182	267
	04/27/17	17	<0.35	<0.37	<0.16	11	1583.81	7.26	1.99	220	162
	10/31/17	46	0.91	<0.37	1.7	22	1583.63	6.83	2.23	204	293
	04/27/18	6.0	<0.35	2.5	0.96	4.5	1583.97	6.89	2.28	131	180

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
Top of Casing Elevation = 1591.42 ft MSL											
MW-18	11/01/93	44	0.93	2200	200	ND					
(17)	01/01/94	ND	ND	8000	530	ND					
	07/01/94	15	ND	75	13	ND					
	01/01/95	6.3	ND	4.2	21	ND					
	06/01/95	ND	ND	4.1	1600	950					
	01/01/96	6.7	ND	110	100	ND					
	06/06/96	3.9	ND	51	34	ND					
	01/01/97	16	ND	500	130	ND					
	10/01/97	20	ND	290	150	ND					
	04/01/98	3.3	ND	37	13	ND					
	11/01/98	24	0.84	41	43	ND					
	06/01/99	19	ND	5.1	28	ND					
	12/01/99	Not Sampled because well was bent in collision									
	06/01/00	220	3.3	4.9	43	1.7					
	01/01/01	9.9	ND	34	76	ND					
	12/01/01	<0.50	ND	3.4	1.8	ND					
	06/01/02	1	ND	5.2	3.6	ND					
	12/01/02	1.9	ND	6.5	6	1.2					
	11/01/03	1.3	ND	1.6	1.1	ND					
	12/07/04	1.1	<0.4	5.7	2	0.43	1582.96	8.41	1.33	42	475.8
	03/22/05	1.6	<0.6	4.5	2.9	0.66	1581.92	8.69	1.98	52	479.8
	08/31/05	670	7.7	470	2700	1.3	1582.13	6.50	1.11	292	328
	02/14/06	2.9	<0.6	6.8	7.7	0.39	1581.88	7.25	1.93	158	280.7
	05/22/06	1.2	<0.4	3.1	2.2	1.7	1582.47	7.22	2.37	155	339.9
	08/08/06	37	<0.4	7.7	83	1.7	1582.44	7.48	1.89	256	431
	11/29/06	250	1.8	16	140	4	1582.45	7.00	1.51		305
	02/26/07	27	<0.4	1.2	2.4	7.1	1582.60	6.75	1.29	361	595
	05/23/07	<0.4	<0.5	1.8	0.27	0.8	1582.90	7.68	1.93		573
	08/22/07	110	1.1	3	22	11	1582.35	5.88	1.46	204	309
	11/29/07	0.4	<0.5	2.5	1.3	0.89	1582.62	6.56	1.84	304	793
Qtr	07/29/08	18	<0.5	3.1	2.5	1.9	1582.53	6.91	2.22	346	506
Pilot Study	09/11/08	490	5.3	3.3	23	24	1582.23	7.15	2.15	375	293
Pilot Study	10/09/08	4.4	<0.5	4.3	1.5	5.9	1582.46	6.92	2.27	425	600
Qtr	11/21/2008	1.3	<0.5	1.5	0.69	2.1	1582.25	7.23	1.62	191	638
Pilot Study	12/17/2008	3.0	<0.50	1.1	0.54	1.9	1582.16	7.29	1.28	304	597
Qtr	2/11/2009	<0.4	<0.5	3.7	<0.15	<0.15	1581.86	7.48	1.61	354	255
Qtr	5/21/2009	<0.4	<0.5	3	<0.15	<0.15	1582.61	7.96	2.16	237	320
Pilot Study	8/5/2009	320	3.5	2.1	25	13	1582.09	6.05	2.37	262	331
Qtr	11/19/2009	1.4	<0.5	1.9	0.31	4.9	1582.38	6.28	2.18	288	614
	02/25/10	75	1.1	0.46	0.26	29	1582.27	6.78	1.51	228	558
	05/11/10	0.9	<0.25	0.86	<0.21	1.4	1582.40	7.14	1.32	319	569
	10/25/10	<0.5	<0.5	2.5	1.3	0.54	1583.29	6.42	2.12	172	457
	04/26/11	<0.5	<0.5	<0.50	<0.20	0.21	1582.69	7.68	2.36	197	599
	10/28/11	17	<0.50	<0.50	0.90	3.9	1582.88	6.93	2.13	193	601
	04/27/12	3.7	<0.25	<0.17	0.32	1.7	1582.90	6.99	2.46	189	584
	01/08/14	0.75	<0.25	<0.17	0.39	<0.10	1583.08	6.92	2.07	202	488
	04/10/14	0.79	<0.25	<0.17	<0.19	<0.10	1582.86	6.68	2.28		414
	10/28/14	0.51	<0.25	<0.17	1.4	<0.10	1583.50	6.33	0.90		348
	04/27/15	<0.12	<0.25	<0.17	<0.19	<0.10	1582.88	6.43	2.12		449
	10/20/15	97	<0.35	<0.37	8.0	2.6	1583.18	6.38	2.23	244	466
	05/25/16	<0.41	<0.35	<0.37	<0.16	<0.20	1583.38	6.78	2.16	239	352
	11/16/16	0.52	<0.35	0.91	1.1	<0.20	1583.33	7.24	1.99	219	396
	04/27/17	<0.41	<0.35	1.1	<0.16	<0.20	1583.62	7.32	2.31	257	332
	10/31/17	1.0	<0.35	<0.37	0.48	<0.20	1583.43	6.46	1.47	384	331
	04/26/18	0.49	<0.35	0.43	<0.16	<0.20	1582.93	6.86	2.34	157	340
Top of Casing Elevation = 1591.60 ft MSL											
MW-18A	05/25/16	0.91	<0.35	0.86	0.62	<0.20	1583.32	8.07	1.23	-319	321
	11/16/16	<0.41	<0.35	1.3	0.60	<0.20	1583.26	7.76	1.74	115	331
	04/27/17	<0.41	<0.35	1.1	0.84	<0.20	1583.52	8.22	2.12	229	338
	10/31/17	<0.41	<0.35	1.2	1.0	<0.20	1583.29	7.90	2.32	131	331
	04/26/18	0.60	<0.35	0.98	1.0	<0.20	1582.53	6.88	2.54	122	287

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
Top of Casing Elevation = 1591.51 ft MSL											
MW-21 (15')	07/29/08	77	10	23	6.8	0.49	1580.70	7.18	1.88	296	152
	9/11/2008	430	3.5	35	37	3	1580.61	6.83	2.33	220	212
Pilot Study	10/9/2008	490	<10	36	42	6.2	1580.90	6.81	2.42	242	226
Qtr	11/21/2008	450	<10	32	42	<3.0	1580.80	7.58	1.56	253	208
Pilot Study	12/17/2008	500	<10	36	58	<3.0	1580.57	7.68	2.02	234	205
Qtr	2/11/2009	98	1.1	21	12	<0.15	1580.44	7.63	2.03	301	212
Qtr	5/21/2009	50	<0.5	9.3	3.4	3	1581.40	7.39	2.01	325	240
Pilot Study	8/5/2009	91	1.1	18	5	1.6	1580.99	5.84	2.92	441	267
Qtr	11/19/2009	600	12	32	15	12	1581.34	6.27	1.94	388	225
	02/25/10	480	7.4	24	7.9	20	1581.35	7.15	2.61	173	224
	05/11/10	530	5.3	18	7.1	29	1581.50	7.29	2.29	276	221
	10/25/10	9.7	<0.5	10	0.54	0.89	1582.37	6.28	1.86	317	142
	04/26/11	73	1.2	41	5.3	22	1581.77	7.22	2.17	318	163
	10/28/11	75	1.1	14	1.3	28	1582.09	6.83	2.57	312	150
	04/27/12	23	<0.25	9.9	0.53	4.3	1582.22	6.91	2.23	315	152
	01/09/14	1.3	<0.25	19	0.75	<0.10	1582.83	7.05	2.21	319	192
	04/10/14	0.89	<0.25	35	1.1	<0.10	1582.99	6.77	2.24		432
	10/28/14	<0.12	<0.25	3.4	<0.19	<0.10	1583.56	6.17	0.89		203
	04/27/15	<0.12	<0.25	22	0.87	<0.10	1582.71	6.47	2.34		220
	10/20/15	4.6	<0.35	13	0.80	1.2	1582.97	6.05	2.51	405	125
	05/25/16	<0.41	<0.35	6.3	<0.16	<0.20	1584.42	6.37	2.20	443	92
	11/16/16	<0.41	<0.35	10	<0.16	<0.20	1583.02	7.75	1.71	379	112
	04/27/17	<0.41	<0.35	5.5	<0.16	<0.20	1584.19	6.91	2.13	421	124
	10/31/17	0.83	<0.35	4.4	<0.16	<0.20	1583.43	6.25	2.48	478	103
	04/26/18	1.8	<0.35	88	2.3	<0.20	1582.66	7.01	2.71	289	83
Top of Casing Elevation = 1592.66 ft MSL											
MW-21A (42')	07/29/08	4.6	<0.5	0.91	0.23	0.34	1582.73	7.89	1.59	25	209
	9/11/2008	8.5	<0.5	1.2	1.4	0.97	1579.13	7.92	1.12	243	208
Pilot Study	10/9/2008	14	<0.5	2	3.3	1.4	1579.24	7.98	2.04	226	215
Qtr	11/21/2008	4.6	<0.5	1.7	2.5	<0.15	1576.29	8.51	1.35	303	222
Pilot Study	12/17/2008	2.9	<0.50	1.5	2.1	<0.15	1579.44	8.49	1.30	2.08	213
Qtr	2/11/2009	16	<0.50	1.4	1.9	1.3	1579.08	7.67	2.13	213	220
Qtr	5/21/2009	9.2	<0.5	0.99	1.1	1	1579.75	7.65	2.02	188	217
Pilot Study	8/5/2009	31	0.6	1.1	1.8	5.5	1579.49	7.52	1.41	263	217
Qtr	11/19/2009	22	<0.5	1.7	5	3.1	1578.31	7.92	1.97	387	219
	02/25/10	5.2	<0.5	0.85	1.3	0.49	1578.81	7.93	2.35	137	215
	05/11/10	5.9	<0.25	0.7	0.91	0.74	1580.05	8.67	2.24	147	220
	10/25/10	14	<0.5	0.53	0.71	3.4	1581.00	7.77	2.02	249	2.38
	04/26/11	8.0	<0.50	2.9	3.3	1.4	1582.24	8.07	1.93	143	285
	10/28/11	5.8	<0.50	1.9	2.3	0.97	1579.50	6.80	1.81	198	283
	04/27/12	12	<0.25	2.3	2.8	1.8	1577.42	6.89	1.89	202	282
	01/09/14	3.4	<0.25	0.55	0.92	<0.10	1581.43	7.05	2.21	319	192
	04/10/14	2.3	<0.25	1.1	1.2	<0.10	1580.98	6.75	1.91		392
	10/28/14	5.8	<0.25	0.55	0.91	<0.10	1582.15	7.22	0.81		314
	04/27/15	8.0	<0.25	<0.17	1.7	1.5	1581.12	6.83	2.47		369
	10/20/15	18	<0.35	4.5	4.8	3.1	1581.93	7.29	1.17	331	348
	05/25/16	46	<0.35	2.2	6.9	4.0	1581.70	7.48	1.25	338	359
	11/16/16	31	0.52	1.4	2.8	3.2	1581.47	7.48	1.85	309	356
	04/27/17	37	<0.35	2.1	4.2	4.4	1579.55	8.18	2.36	327	353
	10/31/17	51	0.83	2.0	4.4	4.7	1580.34	7.57	1.94	405	381
	04/26/18	53	0.64	2.8	7.0	5.6	1581.19	6.94	2.30	271	365

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
GW	Mar-96			3.6	5.2						
Outfall	Jun-96			4.6	4.9						
(Discharge)	Sep-96			5.6	nd						
	Dec-96			2.5	3.9						
	Mar-97			2.4	nd						
	Jul-97			2.6	4.3						
	Sep-97			3.6	nd						
	Dec-97			2.1	4.3						
	Mar-98			1.8	nd						
	Jun-98			1.6	2.7						
	Sep-98			1.2	nd						
	Dec-98			1.6	2.7						
	Mar-99			1.5	nd						
	Jun-99			1.3	2.4						
	Sep-99			1.4	nd						
	Dec-99			1	2.7						
	Apr-00			0.96	nd						
	Jun-00			1.1	3						
	Sep-00			2.5	nd						
	Dec-00			1.8	3.8						
	Mar-01			1.6	nd						
	Jun-01			3	4.4						
	Oct-01			1.2	nd						
	Dec-01			1.1	2.5						
	Mar-02			1.1	2.5						
	Jun-02			1	2.8						
	Sep-02			0.6	1.3						
	Dec-04			0.34	1.2						
	10/25/10	2.7	<0.5	1.1	1.4	<0.2					
	04/26/11	2.9	<0.50	1.8	2.0	<0.20	8.29	5.53	284	316	
	10/27/11	1.8	<0.50	0.95	1.1	<0.20	6.97	1.67	243	337	
	04/27/12	2.0	<0.25	0.61	0.69	<0.10	7.21	4.97	213	329	
	01/09/14	1.2	<0.25	0.53	0.93	<0.10	7.07	3.27	251	334	
	04/10/14	1.1	<0.25	<0.17	0.65	<0.10	6.70	4.77		258	
	10/28/14	1.2	<0.25	0.47	0.75	<0.10	7.12	1.47		220	
	04/27/15	1.7	<0.25	<0.17	0.96	<0.10	6.61	3.55		247	
	10/20/15	2.0	<0.35	<0.37	1.0	<0.20	7.77	4.81	253	355	
	05/25/16	<0.41	<0.35	<0.37	<0.16	<0.20	8.15	4.09	388	380	
	11/16/16	2.1	<0.35	0.60	0.92	<0.20	7.45	4.61	117	365	
	04/27/17	0.87	<0.35	<0.37	0.50	<0.20	8.31	4.06	117	288	
	10/31/17	1.8	<0.35	<0.37	1.1	<0.20	7.86	4.17	141	366	
	04/26/18	1.7	<0.35	<0.37	1.0	<0.20	6.78	4.63	91	364	

TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

Analyte	Sampling Date	Cis-1,2-	Trans-1,2-	Tetrachloro-	Trichloro-	Vinyl	GW Elevation	pH	DO	Redox	Conductivity
		Dichloroethylene	Dichloroethylene	ethene	ethene	Chloride					
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
LSD	07/09/84		<1.0	<1.0	<1.0		sampled by Lakeland SD				
Well-3	08/07/84			62	4		sampled by Lakeland SD				
	08/21/84			12	<1.0		sampled by Lakeland SD				
	05/27/86		<1.0	<1.0	<1.0	<7.0	sampled by Lakeland SD				
	06/09/86		<1.0	<1.0	<1.0	<7.0	sampled by Lakeland SD				
	10/19/87		<0.1	<0.1	<0.1		sampled by Lakeland SD				
	06/25/90	<0.5	<0.5	<0.2	<0.2	<0.2	sampled by Lakeland SD				
	02/27/91	<0.5	<0.5	<0.5	<0.2	<0.2	sampled by Lakeland SD				
	06/28/91	<0.5	<0.5	<0.5	<0.2	<0.2	sampled by Lakeland SD				
	03/22/92	<0.5	<0.5	<0.5	<0.2	<0.2	sampled by Lakeland SD				
	06/10/92	<0.5	<0.5	<0.5	<0.2	<0.2	sampled by Lakeland SD				
	09/30/02	<0.5	<0.5	<0.5	<0.2	<0.2	sampled by Lakeland SD				
	11/10/93	<0.1	<0.1	<0.5	<0.5	<0.2	sampled by Lakeland SD				
	07/06/94	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	08/15/95	0.5	<0.1	2.8	2.1	<0.2	sampled by Lakeland SD				
	03/25/96	0.87	<0.1	3.4	3.6	<0.2	sampled by Lakeland SD				
	06/01/96	0.67	ND	3.1	3.4	ND					
	06/07/96	0.67	<0.1	3.1	3.4	<0.2	sampled by Lakeland SD				
	08/27/96	0.5	<0.1	<0.2	2.2	<0.2	sampled by Lakeland SD				
	12/16/96	0.24	<0.1	0.9	1	<0.2	sampled by Lakeland SD				
	01/01/97	ND	ND	1.5	1.4	ND					
	03/03/97	0.16	<0.1	0.52	0.46	<0.2	sampled by Lakeland SD				
	06/02/97	0.11	<0.1	0.33	0.34	<0.2	sampled by Lakeland SD				
	09/12/97	<0.1	<0.1	0.17	0.16	<0.2	sampled by Lakeland SD				
	10/01/97	ND	ND	1.5	0.32	ND					
	12/11/97	<0.1	<0.1	0.13	0.16	<0.2	sampled by Lakeland SD				
	03/03/98	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	06/25/98	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	09/01/98	ND	ND	ND	ND	ND					
	09/22/98	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	11/01/98	ND	ND	0.17	0.19	ND					
	12/14/98	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	03/16/99	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	06/01/99	ND	ND	ND	ND	ND					
	12/01/99	ND	ND	<0.26>	ND	ND					
	01/25/00	<0.1	<0.1	<0.2	<0.1	<0.2	sampled by Lakeland SD				
	06/01/00	ND	ND	ND	<0.17>	ND					
	01/01/01	ND	<0.41>	<0.43>	ND	ND					
	01/24/01	<0.1	<0.1	0.35	0.32	<0.2	sampled by Lakeland SD				
	12/01/01	ND	ND	<0.23>	<0.31>	ND					
	02/05/02	<0.1	<0.1	<0.2	0.18	<0.2	sampled by Lakeland SD				
	06/02/02	ND	ND	<0.23>	<0.38>	ND					
	12/02/02	<0.44>	ND	0.56	1.2	ND					
	03/11/03	<0.1	<0.1	<0.2	0.77	<0.2	sampled by Lakeland SD				
	07/30/03	0.75	<0.1	0.66	1.7	<0.2	sampled by Lakeland SD				
	11/01/03	[0.59]	ND	0.59	1.4	ND					
	11/26/03	0.55	<0.37	0.63	1.4	<0.12	sampled by Lakeland SD				
	03/01/04	0.78	<0.1	0.71	1.7	<0.2	sampled by Lakeland SD				
	04/26/04	0.73	<0.1	0.59	1.4	<0.2	sampled by Lakeland SD				
	08/24/04	0.47	<0.1	0.44	1	<0.2	sampled by Lakeland SD				
	11/03/04	0.95	<0.1	0.93	2	<0.2	sampled by Lakeland SD				
	12/06/04	0.61	<0.4	0.64	1	<0.3					
	02/14/05	1.7	<0.17	1.8	3.6	<0.17	sampled by Lakeland SD				
	03/09/05	1.3	<0.17	1.4	2.7	<0.15	sampled by Lakeland SD				
	03/23/05	1.2	<0.6	0.93	2.2	<0.12		8.52	3.41	291	308.3
	04/25/05	0.87	<0.17	0.85	1.7	<0.17	sampled by Lakeland SD				
	08/09/05	[0.57]	<0.58	[0.46]	1	<0.54	sampled by Lakeland SD				
	09/01/05	<0.60	<0.60	0.48	1.1	<0.12		7.35	2.22	234	278.7
	02/15/05	<0.6	<0.6	<0.4	<0.15	<0.12		7.77	2.49	156	284.8
	03/06/06	1.8	<0.17	1.1	2	0.17	sampled by Lakeland SD				
	04/17/06	0.64	<0.17	0.47	0.88	<0.17	sampled by Lakeland SD				
	05/23/06	0.51	<0.4	0.43	0.58	<0.15		8.06	2.29	158	296.1
	08/08/06	0.9	<0.40	1	1.4	<0.15		8.81	2.72	176	359
	11/29/06	<0.4	<0.4	<0.29	<0.15	<0.15		7.36	1.71		
	02/21/07	<0.26	<0.23	<0.19	<0.22	<0.12	sampled by Lakeland SD				
	02/26/07	<0.4	<0.4	<0.29	<0.15	<0.15		7.95	2.96	293	224
	05/22/07	<0.4	<0.5	<0.4	<0.15	<0.15		7.46	1.31		237
	08/22/07	<0.4	<0.5	<0.4	<0.15	<0.15		7.23	3.90	211	361
	11/29/07	<0.4	<0.5	<0.4	<0.15	<0.15		7.73	2.22	319	386
	07/29/08	<0.4	<0.5	<0.4	<0.15	<0.15		7.83	3.08	209	397
	11/20/08	<0.4	<0.5	<0.4	<0.15	<0.15		8.54	1.74	334	413
	02/11/09	<0.4	<0.5	<0.4	<0.15	<0.15					
	05/21/09	<0.4	<0.5	<0.4	<0.15	<0.15		6.64	2.79	353	382
	08/05/09	<0.4	<0.5	<0.4	<0.15	<0.15		7.27	2.56	229	384
	11/19/09	<0.4	<0.5	<0.4	<0.15	<0.15		7.52	2.52	209	389
	02/25/10	<0.4	<0.5	<0.4	<0.15	<0.15		7.55	2.19	169	406
	05/12/10	<0.25	<0.25	<0.3	<0.21	<0.22		805.00	1.47	244	386
	10/25/10	<0.5	<0.5	<0.5	<0.2	<0.2		7.75	2.17	142	425

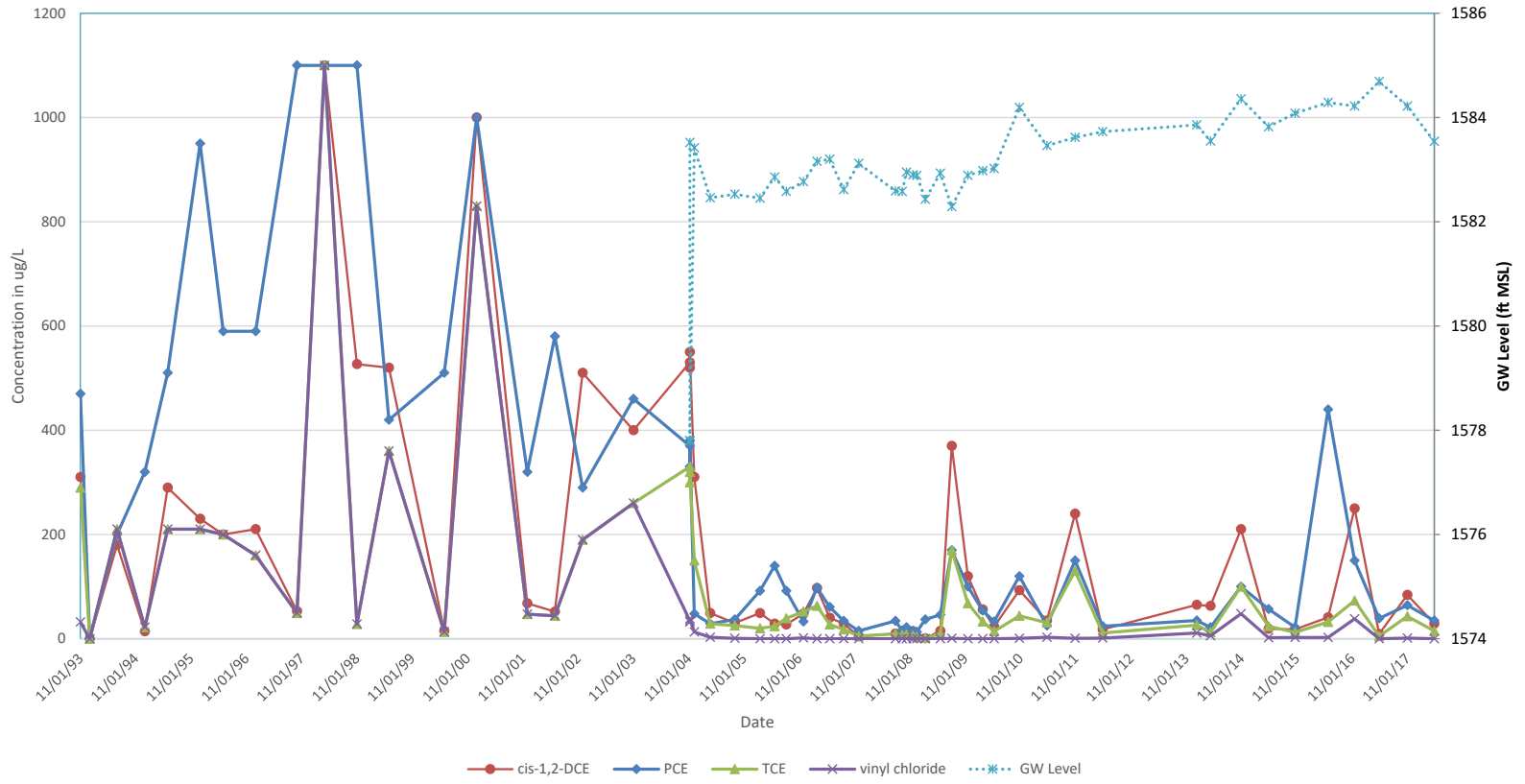
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TABLE 2
Groundwater Sample Analytical Results
Minocqua Cleaners
Minocqua, WI

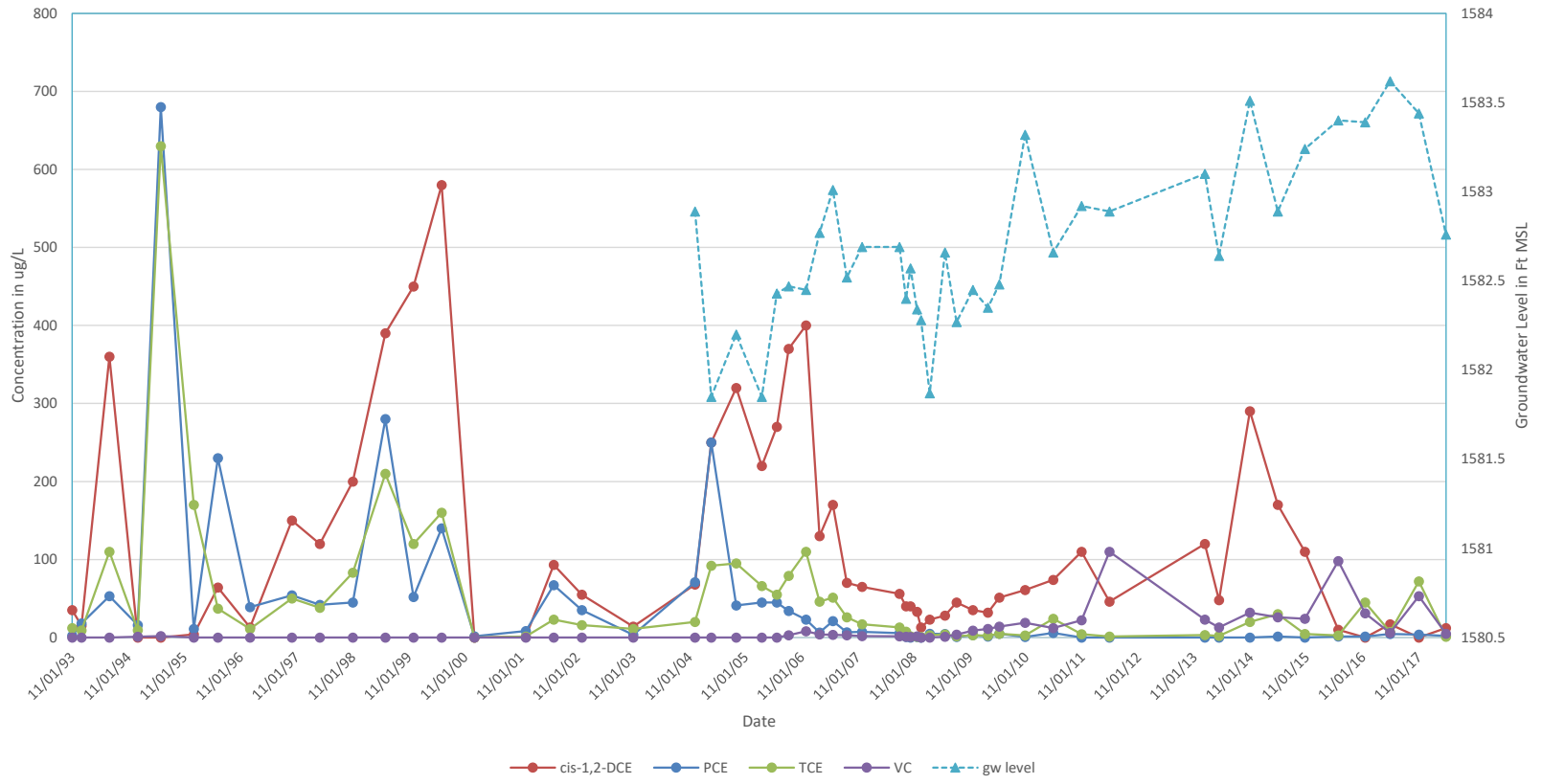
Analyte	Sampling Date	Cis-1,2-Dichloroethylene	Trans-1,2-Dichloroethylene	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride	GW Elevation	pH	DO	Redox	Conductivity
ES		70	100	5	5	0.2					
PAL		7	20	0.5	0.5	0.02					
Well-3 (cont.)											
	04/26/11	<0.5	<0.5	<0.5	<0.20	<0.20		8.17	2.95	117	379
	10/28/11	<0.50	<0.50	<0.50	<0.20	<0.20		6.89	2.14	183	447
	04/27/12	<0.12	<0.25	<0.17	<0.19	<0.10		7.18	2.42	158	429
	01/09/14	<0.12	<0.25	<0.17	<0.19	<0.10		7.16	2.41	178	396
	04/10/14	<0.12	<0.25	<0.17	<0.19	<0.10		7.06	2.46		389
	10/28/14	<0.12	<0.25	<0.17	<0.19	<0.10		7.47	1.52		321
	04/28/15	<0.12	<0.25	<0.17	<0.19	<0.10		6.84	2.46		359
	10/20/15	<0.41	<0.35	<0.37	<0.16	<0.20		7.80	2.07	165	424
	05/25/16	<0.41	<0.35	<0.37	<0.16	<0.20		7.97	2.32	280	432
	11/17/16	<0.41	<0.35	<0.37	<0.16	<0.20		7.83	2.53	310	427
	04/28/17	<0.41	<0.35	<0.37	<0.16	<0.20		8.24	4.41	388	423
	10/31/17	<0.41	<0.35	<0.37	<0.16	<0.20		8.04	2.32	366	438
	04/27/18	<0.41	<0.35	<0.37	<0.16	<0.20		6.95	3.36	281	440

Notes: Concentrations are in ug/L
MSL - mean sea level

Concentrations vs. Time Well B-13, Minocqua Cleaners



Concentrations vs. Time Well MW-19, Minocqua Cleaners



**Table 1 - Groundwater Elevations
Minocqua Cleaners, Minocqua, WI**

Well Number Screen Length Ground Surface Top of Casing Top of Screen DATE	B-1		B-1A		B-1B		B-2		B-2A		B-2B		B-3		B-3A	
	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
09-Nov-04	29.52	1576.96	26.11	1580.55	26.13	1580.79	23.42	1580.58	22.82	1580.70	22.25	1581.43	22.49	1582.67	22.71	1582.71
06-Dec-04	29.71	1576.77	26.39	1580.27	26.40	1580.52	23.78	1580.22	23.16	1580.36	22.28	1581.40	22.81	1582.35	22.92	1582.50
22-Mar-05	25.57	1580.91	25.61	1581.05	25.86	1581.06	23.61	1580.39	23.20	1580.32	22.81	1580.87	23.81	1581.35	23.88	1581.54
31-Aug-05	25.63	1580.85	25.68	1580.98	25.94	1580.98	23.61	1580.39	23.22	1580.30	22.83	1580.85	23.21	1581.95	23.62	1581.80
14-Feb-06	25.68	1580.80	25.70	1580.96	25.98	1580.94	23.61	1580.39	23.18	1580.34	22.85	1580.83	23.32	1581.84	23.68	1581.74
22-May-06	25.40	1581.08	25.41	1581.25	25.64	1581.28	23.56	1580.44	23.04	1580.48	22.47	1581.21	22.96	1582.20	23.31	1582.11
08-Aug-06	31.61	1574.87	27.95	1578.71	26.89	1580.03	25.74	1578.26	24.97	1578.55	23.89	1579.79	23.71	1581.45	23.89	1581.53
29-Nov-06	25.60	1580.88	26.21	1580.45	26.68	1580.24	25.21	1578.79	24.46	1579.06	23.05	1580.63	23.51	1581.65	23.62	1581.80
26-Feb-07	25.01	1581.47	25.47	1581.19	25.89	1581.03	22.95	1581.05	22.31	1581.21	22.64	1581.04	22.92	1582.24	23.11	1582.31
22-May-07	24.97	1581.51	25.01	1581.65	25.29	1581.63	23.33	1580.67	22.28	1581.24	22.22	1581.46	22.47	1582.69	22.87	1582.55
21-Aug-07	31.29	1575.19	27.36	1579.30	27.26	1579.66	25.33	1578.67	24.59	1578.93	23.31	1580.37	23.49	1581.67	23.66	1581.76
28-Nov-07	24.50	1581.98	24.66	1582.00	24.94	1581.98	22.52	1581.48	21.90	1581.62	21.91	1581.77	22.81	1582.35	22.97	1582.45
28-Jul-08	25.65	1580.83	25.73	1580.93	26.02	1580.90	24.09	1579.91	23.58	1579.94	23.19	1580.49	23.24	1581.92	23.61	1581.81
20-Nov-08	24.90	1581.58	25.07	1581.59	25.34	1581.58	23.02	1580.98	22.33	1581.19	22.37	1581.31	23.28	1581.88	23.49	1581.93
10-Feb-09	25.35	1581.13	25.53	1581.13	25.82	1581.10	23.40	1580.60	22.81	1580.71	22.86	1580.82	23.26	1581.90	23.70	1581.72
20-May-09	25.14	1581.34	25.16	1581.50	25.40	1581.52	23.48	1580.52	22.98	1580.54	22.39	1581.29	22.23	1582.93	23.14	1582.28
05-Aug-09	25.86	1580.62	25.94	1580.72	26.21	1580.71	23.38	1580.62	23.74	1579.78	23.30	1580.38	23.50	1581.66	23.84	1581.58
19-Nov-09	25.21	1581.27	25.19	1581.47	25.43	1581.49	23.36	1580.64	22.84	1580.68	22.23	1581.45	22.84	1582.32	23.21	1582.21
25-Feb-10	25.10	1581.38	25.07	1581.59	25.32	1581.60	22.61	1581.39	22.01	1581.51	22.11	1581.57	22.93	1582.23	23.26	1582.16
11-May-10	24.85	1581.63	25.19	1581.47	25.53	1581.39	22.79	1581.21	22.17	1581.35	22.40	1581.28	22.75	1582.41	23.09	1582.33
25-Oct-10	23.66	1582.82	23.82	1582.84	24.06	1582.86							21.74	1583.42	22.06	1583.36
26-Apr-11	24.27	1582.21	24.47	1582.19	24.74	1582.18	22.13	1581.87	21.54	1581.98	21.56	1582.12	22.45	1582.71	22.78	1582.64
27-Oct-11	24.06	1582.42	24.23	1582.43	24.49	1582.43	22.46	1581.54	21.94	1581.58	21.25	1582.43	22.18	1582.98	22.50	1582.92
26-Apr-12	23.87	1582.61	24.02	1582.64	24.28	1582.64	21.71	1582.29	21.11	1582.41	21.13	1582.55	22.07	1583.09	22.37	1583.05
08-Jan-14	24.08	1582.40	24.09	1582.57	24.32	1582.60	21.68	1582.32	21.11	1582.41	21.21	1582.47	21.98	1583.18	22.27	1583.15
26-Apr-14	24.56	1581.92	24.82	1581.84	25.09	1581.83	22.71	1581.29	22.20	1581.32	21.81	1581.87	22.41	1582.75	22.74	1582.68
28-Oct-14	23.32	1583.16	23.46	1583.20	23.73	1583.19	21.68	1582.32	21.17	1582.35	20.42	1583.26	21.54	1583.62	21.79	1583.63
27-Apr-15	23.98	1582.50	24.16	1582.50	24.43	1582.49	21.70	1582.30	21.14	1582.38	21.12	1582.56	22.11	1583.05	22.36	1583.06
20-Oct-15	23.77	1582.71	23.74	1582.92	23.99	1582.93	21.46	1582.54	20.89	1582.63	20.97	1582.71	21.71	1583.45	22.02	1583.40
25-May-16	23.63	1582.85	23.81	1582.85	24.09	1582.83	21.78	1582.22	21.28	1582.24	20.92	1582.76	21.60	1583.56	21.89	1583.53
16-Nov-16	23.44	1583.04	23.61	1583.05	23.87	1583.05	21.25	1582.75	20.71	1582.81	20.77	1582.91	21.58	1583.58	21.88	1583.54
27-Apr-17	23.03	1583.45	23.24	1583.42	23.51	1583.41	20.56	1583.44	20.07	1583.45	20.27	1583.41	21.29	1583.87	21.51	1583.91
30-Oct-17	23.48	1583.00	23.65	1583.01	23.91	1583.01	21.48	1582.52	20.90	1582.62	20.83	1582.85	21.61	1583.55	21.93	1583.49
26-Apr-18	24.38	1582.10	24.55	1582.11	24.86	1582.06	22.70	1581.30	22.17	1581.35	21.74	1581.94	22.47	1582.69	22.74	1582.68

**Table 1 - Groundwater Elevations
Minocqua Cleaners, Minocqua, WI**

Well Number Screen Length Ground Surface Top of Casing Top of Screen DATE	B-5 15		B-8 10		B-8A 5		B-9 5		B-10 5		B-11 10		B-12 25	
	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
09-Nov-04	16.94	1582.08	20.40	1582.46			16.34	1582.13	19.08	1582.17	19.22	1582.22	21.98	1582.02
06-Dec-04	17.08	1581.94	20.48	1582.38	22.35	1581.02	16.64	1581.83	19.11	1582.14	19.15	1582.29	21.81	1582.19
23-Mar-05			21.43	1581.43	22.29	1581.08								
31-Aug-05			21.77	1581.09	22.37	1581.00								
14-Feb-06			21.30	1581.56	22.44	1580.93								
22-May-06			20.59	1582.27	22.22	1581.15								
08-Aug-06			21.93	1580.93	24.23	1579.14								
29-Nov-06	17.97	1581.05	21.55	1581.31	22.47	1580.90	17.54	1580.93						
26-Feb-07	17.61	1581.41	21.27	1581.59	22.01	1581.36	16.88	1581.59						
22-May-07	17.30	1581.72	20.83	1582.03	21.71	1581.66	16.57	1581.90						
21-Aug-07	18.32	1580.70	21.74	1581.12	23.68	1579.69	17.83	1580.64						
28-Nov-07	17.40	1581.62	20.59	1582.27	22.47	1580.90	16.69	1581.78						
28-Jul-08	19.41	1579.61	21.18	1581.68	22.41	1580.96	19.59	1578.88	20.33	1580.92	20.38	1581.06		
19-Nov-08			21.11	1581.75	21.81	1581.56	17.40	1581.07	19.76	1581.49	19.98	1581.46		
10-Feb-09	18.91	1580.11	21.53	1581.33	22.27	1581.10	17.74	1580.73	19.89	1581.36	20.02	1581.42		
20-May-09	17.73	1581.29	20.31	1582.55	21.72	1581.65	17.33	1581.14	19.84	1581.41	19.87	1581.57		
05-Aug-09	19.73	1579.29	21.73	1581.13	22.37	1581.00	17.82	1580.65	20.09	1581.16	20.44	1581		
19-Nov-09	18.07	1580.95	21.04	1581.82	21.92	1581.45	18.70	1579.77	20.11	1581.14	20.05	1581.39	22.82	1581.18
25-Feb-10	17.68	1581.34	21.05	1581.81	21.83	1581.54	18.41	1580.06	19.51	1581.74	19.76	1581.68	22.44	1581.56
11-May-10	17.49	1581.53	20.84	1582.02	21.77	1581.60	16.81	1581.66	19.61	1581.64	19.64	1581.8	22.41	1581.59
25-Oct-10									18.89	1582.36	18.83	1582.61	21.34	1582.66
26-Apr-11	16.84	1582.18			21.12	1582.25	16.28	1582.19	19.38	1581.87	19.29	1582.15	21.86	1582.14
27-Oct-11	16.77	1582.25			20.84	1582.53	16.73	1581.74	18.77	1582.48	19.01	1582.43	21.68	1582.32
26-Apr-12	16.46	1582.56			20.70	1582.67	15.88	1582.59	18.96	1582.29	18.88	1582.56	21.47	1582.53
08-Jan-14	16.52	1582.50	19.88	1582.98	20.72	1582.65	15.92	1582.55	19.01	1582.24	19.03	1582.41	21.73	1582.27
26-Apr-14	17.66	1581.36	20.57	1582.29	21.29	1582.08	17.37	1581.10	19.61	1581.64	19.58	1581.86	22.28	1581.72
28-Oct-14	16.56	1582.46	19.27	1583.59	20.12	1583.25	16.63	1581.84	18.07	1583.18	18.29	1583.15	20.92	1583.08
27-Apr-15	16.54	1582.48	19.47	1583.39	20.70	1582.67	15.98	1582.49	18.73	1582.52	18.94	1582.5	21.60	1582.4
20-Oct-15	16.51	1582.51	19.84	1583.02	20.47	1582.90	15.81	1582.66	18.71	1582.54	18.72	1582.72	21.35	1582.65
25-May-16	16.62	1582.40	19.36	1583.50	20.41	1582.96	16.86	1581.61	18.37	1582.88	18.59	1582.85	21.24	1582.76
16-Nov-16	16.24	1582.78	19.38	1583.48	20.30	1583.07	15.61	1582.86	18.18	1583.07	18.39	1583.05	21.03	1582.97
27-Apr-17	15.80	1583.22	18.78	1584.08	19.84	1583.53	16.05	1582.42	18.04	1583.21	18.04	1583.4	20.59	1583.41
30-Oct-17	16.19	1582.83	19.53	1583.33	20.34	1583.03	15.57	1582.90	18.5	1582.75	18.64	1582.8	21.31	1582.69
26-Apr-18	17.41	1581.61	19.73	1583.13	21.21	1582.16	17.45	1581.02	19.14	1582.11	19.32	1582.12	22.04	1581.96

**Table 1 - Groundwater Elevations
Minocqua Cleaners, Minocqua, WI**

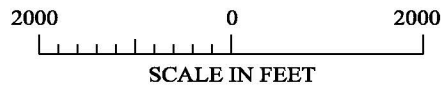
Well Number Screen Length Ground Surface Top of Casing Top of Screen DATE	B-13		B-13A		B-13B		B-15		MW-17		MW-18		MW-18A	
	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
09-Nov-04	13.18	1583.52					18.36	1583.41	8.35	1583.45	8.14	1583.28		
06-Dec-04	13.28	1583.42	14.11	1582.22	13.68	1582.48	18.41	1583.36	8.69	1583.11	8.46	1582.96		
23-Mar-05	14.24	1582.46	15.08	1581.25	14.92	1581.24			9.63	1582.17	9.50	1581.92		
31-Aug-05	14.17	1582.53	14.77	1581.56	14.48	1581.68			9.49	1582.31	9.29	1582.13		
15-Feb-06	14.25	1582.45	14.90	1581.43	14.65	1581.51			9.68	1582.12	9.54	1581.88		
26-May-06	13.84	1582.86	14.50	1581.83	14.23	1581.93			9.05	1582.75	8.95	1582.47		
08-Aug-06	14.12	1582.58	14.73	1581.60	14.42	1581.74			9.00	1582.80	8.98	1582.44		
29-Nov-06	13.93	1582.77	14.76	1581.57	14.51	1581.65			9.26	1582.54	8.97	1582.45		
26-Feb-07	13.54	1583.16	14.14	1582.19	13.79	1582.37			8.98	1582.82	8.82	1582.60		
23-May-07	13.50	1583.20	14.08	1582.25	13.72	1582.44			8.69	1583.11	8.52	1582.90		
22-Aug-07	14.08	1582.62	14.66	1581.67	14.28	1581.88			9.24	1582.56	9.07	1582.35		
28-Nov-07	13.58	1583.12	14.20	1582.13	13.89	1582.27			8.91	1582.89	8.80	1582.62		
29-Jul-08	14.11	1582.59	14.72	1581.61	14.37	1581.79			8.98	1582.82	8.89	1582.53		
15-Aug-08									9.20	1582.60	9.12	1582.30		
11-Sep-08	14.12	1582.58	14.78	1581.55					9.35	1582.45	9.19	1582.23		
9-Oct-08	13.75	1582.95	14.48	1581.85					9.09	1582.71	8.96	1582.46		
21-Nov-08	13.80	1582.90	14.56	1581.77	14.17	1581.99			9.21	1582.59	9.17	1582.25		
16-Dec-08	13.81	1582.89	14.49	1581.84					9.41	1582.39	9.26	1582.16		
10-Feb-09	14.27	1582.43	14.94	1581.39	14.65	1581.51			9.39	1582.41	9.56	1581.86		
20-May-09	13.77	1582.93	14.24	1582.09	14.20	1581.96			8.83	1582.97	8.81	1582.61		
05-Aug-09	14.41	1582.29	15.01	1581.32	14.48	1581.68			9.54	1582.26	9.33	1582.09		
19-Nov-09	13.81	1582.89	14.41	1581.92	14.11	1582.05			9.13	1582.67	9.04	1582.38		
25-Feb-10	13.72	1582.98	14.37	1581.96	14.15	1582.01			9.35	1582.45	9.15	1582.27		
11-May-10	13.68	1583.02	14.34	1581.99	14.07	1582.09			9.13	1582.67	9.02	1582.40		
25-Oct-10	12.51	1584.19	13.54	1582.79	13.34	1582.82			8.37	1583.43	8.13	1583.29		
26-Apr-11	13.24	1583.46	14.02	1582.31	13.74	1582.42			8.75	1583.05	8.73	1582.69		
27-Oct-11	13.08	1583.62	13.86	1582.47	13.64	1582.52			8.80	1583.00	8.54	1582.88		
26-Apr-12	12.97	1583.73	13.70	1582.63	13.46	1582.70			8.73	1583.07	8.52	1582.90		
08-Jan-14	12.84	1583.86	13.65	1582.68	13.46	1582.70			8.61	1583.19	8.34	1583.08		
26-Apr-14	13.15	1583.55	13.99	1582.34	13.73	1582.43			8.38	1583.42	8.56	1582.86		
28-Oct-14	12.34	1584.36	13.23	1583.10	13.09	1583.07			8.18	1583.62	7.92	1583.50		
27-Apr-15	12.88	1583.82	13.60	1582.73	13.38	1582.78			8.69	1583.11	8.54	1582.88		
20-Oct-15	12.62	1584.08	13.35	1582.98	13.12	1583.04			8.51	1583.29	8.24	1583.18		
25-May-16	12.41	1584.29	13.14	1583.19	12.93	1583.23			8.41	1583.39	8.04	1583.38	8.28	1583.32
16-Nov-16	12.48	1584.22	13.15	1583.18	12.92	1583.24			8.37	1583.43	8.09	1583.33	8.34	1583.26
27-Apr-17	12.01	1584.69	12.82	1583.51	12.63	1583.53			7.99	1583.81	7.80	1583.62	8.08	1583.52
30-Oct-17	12.48	1584.22	13.19	1583.14	12.95	1583.21			8.17	1583.63	7.99	1583.43	8.31	1583.29
26-Apr-18	13.16	1583.54	14.01	1582.32	13.78	1582.38			7.83	1583.97	8.49	1582.93	9.07	1582.53

**Table 1 - Groundwater Elevations
Minocqua Cleaners, Minocqua, WI**

Well Number	MW-19		MW-19A		MW-20		MW-21		MW-21A	
Screen Length	10		5		10		10		5	
Ground Surface	1591.3		1589.8		1590.92		1591.99		1592.16	
Top of Casing	1591.73		1592.04		1593.78		1591.51		1592.66	
Top of Screen	1586.3		1535.1		1587.3		1586		1554.2	
DATE	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
09-Nov-04	8.47	1583.26								
06-Dec-04	8.84	1582.89								
23-Mar-05	9.88	1581.85								
31-Aug-05	9.53	1582.20								
15-Feb-06	9.88	1581.85								
26-May-06	9.30	1582.43								
08-Aug-06	9.26	1582.47								
29-Nov-06	9.28	1582.45								
26-Feb-07	8.96	1582.77								
23-May-07	8.72	1583.01								
22-Aug-07	9.21	1582.52								
28-Nov-07	9.04	1582.69								
29-Jul-08	9.04	1582.69			9.68	1584.10	10.81	1580.70	13.43	1579.23
15-Aug-08	9.25	1582.48			9.89	1583.89	10.97	1580.54	13.62	1579.04
11-Sep-08	9.33	1582.40			10.01	1583.77	10.90	1580.61	13.53	1579.13
9-Oct-08	9.16	1582.57			9.88	1583.90	10.61	1580.90	13.42	1579.24
21-Nov-08	9.39	1582.34			10.13	1583.65	10.71	1580.80	16.37	1576.29
16-Dec-08	9.45	1582.28			10.20	1583.58	10.76	1580.75	13.22	1579.44
10-Feb-09	9.86	1581.87			10.61	1583.17	11.07	1580.44	13.58	1579.08
20-May-09	9.07	1582.66			9.84	1583.94	10.11	1581.40	12.91	1579.75
05-Aug-09	9.46	1582.27			10.14	1583.64	10.52	1580.99	13.17	1579.49
19-Nov-09	9.28	1582.45			10.00	1583.78	10.17	1581.34	14.35	1578.31
25-Feb-10	9.38	1582.35			10.15	1583.63	10.16	1581.35	13.85	1578.81
11-May-10	9.25	1582.48			10.02	1583.76	10.01	1581.50	12.61	1580.05
25-Oct-10	8.41	1583.32			9.18	1584.60	9.14	1582.37	11.66	1581.00
26-Apr-11	9.07	1582.66			9.86	1583.92	9.74	1581.77	10.42	1582.24
27-Oct-11	8.81	1582.92			9.58	1584.20	9.42	1582.09	13.16	1579.50
26-Apr-12	8.84	1582.89			9.62	1584.16	9.29	1582.22	15.24	1577.42
08-Jan-14	8.63	1583.10			9.43	1584.35	8.68	1582.83	11.23	1581.43
26-Apr-14	9.09	1582.64			9.93	1583.85	8.52	1582.99	11.68	1580.98
28-Oct-14	8.22	1583.51			9.06	1584.72	7.95	1583.56	10.51	1582.15
27-Apr-15	8.84	1582.89			9.68	1584.10	8.80	1582.71	11.54	1581.12
20-Oct-15	8.49	1583.24			9.28	1584.50	8.54	1582.97	10.73	1581.93
25-May-16	8.33	1583.40	8.67	1583.37	9.26	1584.52	7.09	1584.42	10.96	1581.70
16-Nov-16	8.34	1583.39	8.64	1583.40	9.19	1584.59	8.49	1583.02	11.19	1581.47
27-Apr-17	8.11	1583.62	8.44	1583.60	9.04	1584.74	7.32	1584.19	13.11	1579.55
30-Oct-17	8.29	1583.44	8.59	1583.45	9.16	1584.62	8.08	1583.43	12.32	1580.34
26-Apr-18	8.97	1582.76	9.61	1582.43	9.96	1583.82	8.85	1582.66	11.47	1581.19

**Table 1 - Groundwater Elevations
Minocqua Cleaners, Minocqua, WI**

Note : Datum for Measurements is Mean Sea Level (MSL)
Elevations for TOC of wells B-1, B-1A, B-1B, B-2, B-2A, B-3, B-3A, B-8, B-8A, B-10, B-12, MW15, MW17 were resurveyed on May 5, 2005. The bolt on the fire hydrant was the benchmark of 1603.56, as shown on basemap. Elevations for TOC and ground surface of wells B-5, B-9 were resurveyed on July 30, 2008.



Woodruff & Hazelhurst Quadrangle
 Wisconsin - Oneida County
 7.5 Minute Series (Topographic)

Contour Interval 10 Feet
 1982

FIGURE 1
 SITE LOCATION MAP
 Minocqua Cleaners
 Minocqua, WI



TRANSPORTATION • MUNICIPAL
 DEVELOPMENT • ENVIRONMENTAL
 1835 N. Stevens St. Rhinelander, WI 54501
 715-362-3244 1-800-944-7854 Fax: 715-362-4116
 Web Address: www.msa-ps.com
 MSA PROFESSIONAL SERVICES



LEGEND

- MONITORING WELL
 - EXTRACTION WELL
 - ABANDONED EXTRACTION WELL
 - VAPOR SAMPLE LOCATION
- V-1 = SUBSLAB
V-2 = DEEP SOIL PROBE

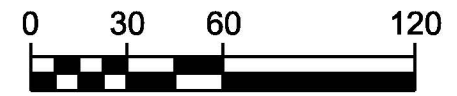


FIGURE 2
SITE LAYOUT MAP
 MINOCQUA CLEANERS
 MINOCQUA, WI

MSA TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
 1835 N. Stevens St. Rhinelander, WI 54501
 715-382-3244 1-800-844-7854 Fax: 715-382-4116
 Web Address: www.msa-ps.com
 © MSA Professional Services, Inc.

DRAWN BY CAR	DATE 4/2017	SHEET NO.
CHECKED BY JE	SCALE AS SHOWN	FILE NO. 8267007 F2 SITE

CHICAGO AVENUE

MANITOWISH ST

PINE ST

ST. GERMAIN ST

- LEGEND**
-  MONITORING WELL
 -  EXTRACTION WELL
 -  ABANDONED EXTRACTION WELL

TREATMENT DISCHARGE TO LAKE

FORMER DRY CLEANING BUILDING (JACK MAHONEY)

GARAGE

ZENTNER

RISTO

SHED

SCHILLING

YELTON

MUNICIPAL WELL #3

CASCADING WEIR

COLLECTOR MANHOLE

MUNICIPAL WELL #4

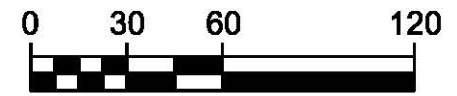
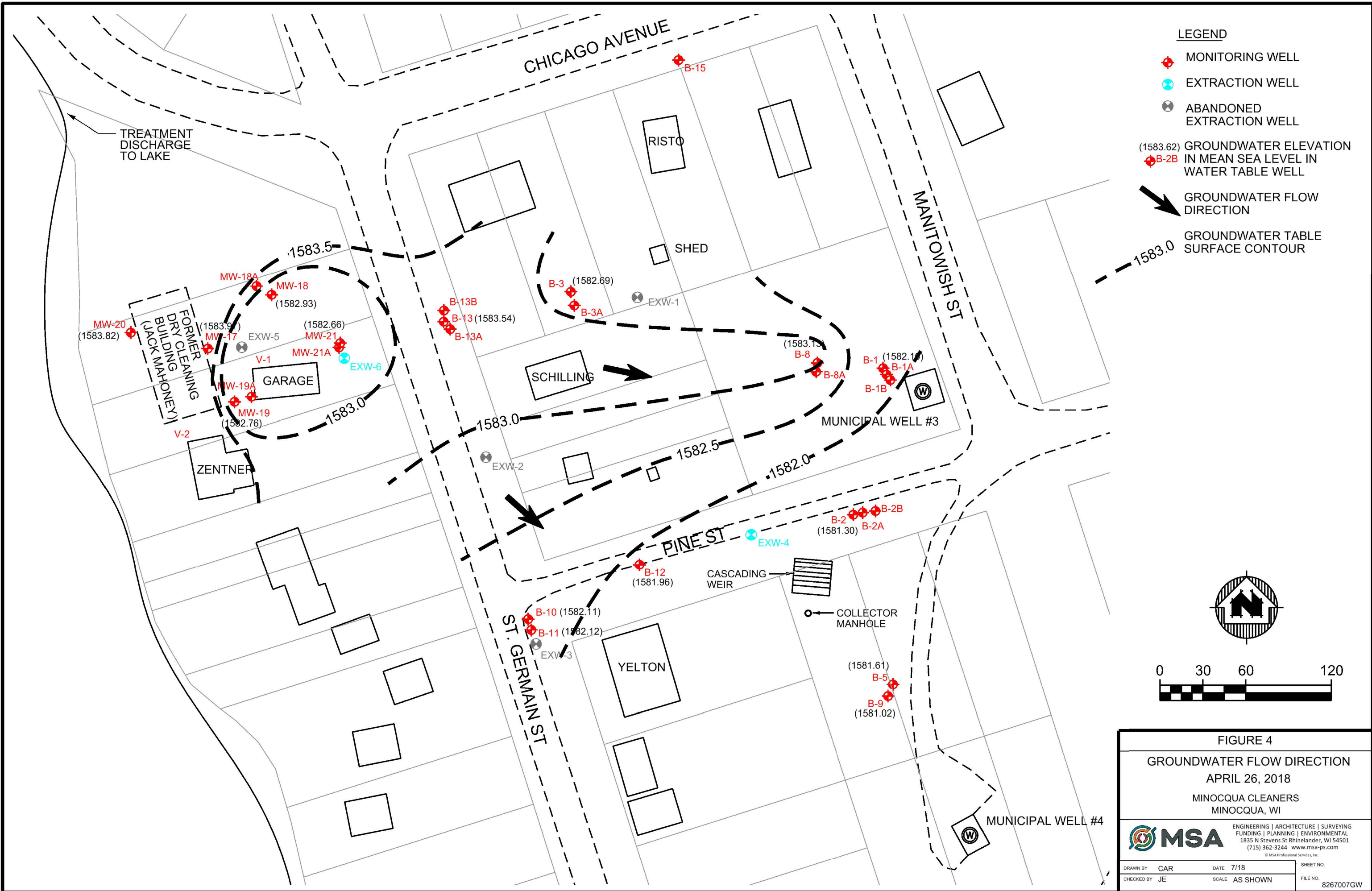


FIGURE 3
WELL LOCATION MAP
 MINOCQUA CLEANERS
 MINOCQUA, WI



TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
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				8267007 GW



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- ABANDONED EXTRACTION WELL
- (1583.62) B-2B (1583.62) GROUNDWATER ELEVATION IN MEAN SEA LEVEL IN WATER TABLE WELL
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER TABLE SURFACE CONTOUR



FIGURE 4
GROUNDWATER FLOW DIRECTION
 APRIL 26, 2018
 MINOCQUA CLEANERS
 MINOCQUA, WI

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CHICAGO AVENUE

LEGEND

- MONITORING WELL
- EXTRACTION WELL
- ABANDONED EXTRACTION WELL

DATE	TETRACHLOROETHYLENE	TRICHLOROETHYLENE	CIS-1,2-DICHLOROETHYLENE	VINYL CHLORIDE	CUMULATIVE
11/2016	1.4	2.8	31	3.2	38.4

ALL CONCENTRATIONS ARE IN ug/L

CUMULATIVE VOCs (ug/L)

0.1-10
10-50
50-100

CONCENTRATIONS LISTED ARE FROM MOST RECENT ANALYSIS (SEE TABLE 2 FOR ADDITIONAL INFORMATION)

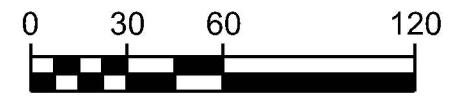


FIGURE 5

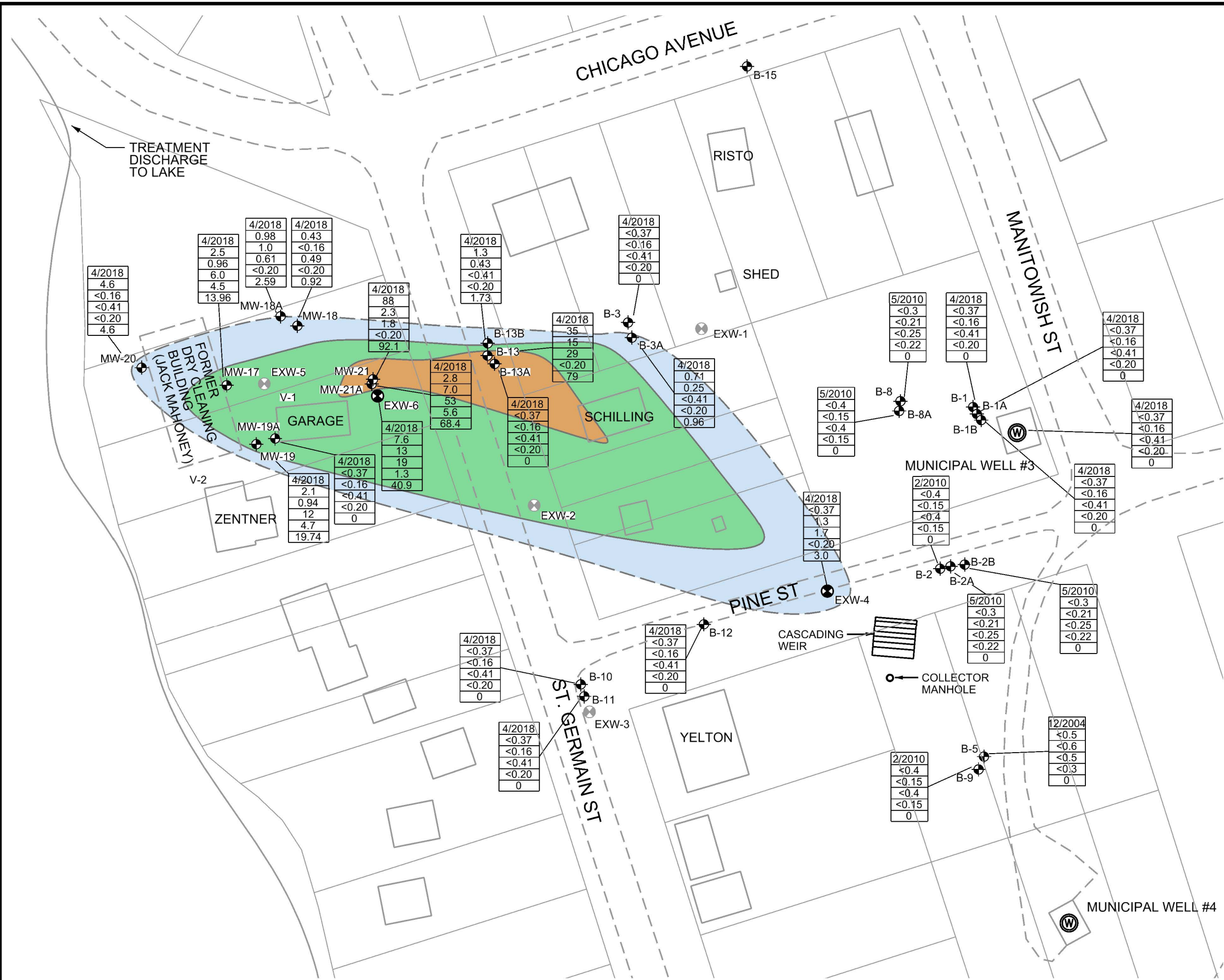
GROUNDWATER CONCENTRATIONS

MINOCQUA CLEANERS
MINOCQUA, WI



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DRAWN BY	CAR	DATE	7/18	SHEET NO.	8267007
CHECKED BY	JE	SCALE	AS SHOWN	GW concentration	F5 Apr18



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-127421-1
Client Project/Site: Minocqua Cleaners - 8267019

For:
MSA Professional Services, Inc
1230 South Blvd
Baraboo, Wisconsin 53913

Attn: Mr. Richard Lyster



Authorized for release by:
5/16/2017 8:29:35 AM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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results through
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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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Case Narrative

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Job ID: 500-127421-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-127421-1

Comments

No additional comments.

Receipt

The samples were received on 5/2/2017 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: EXW-6

Lab Sample ID: 500-127421-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	1.2		1.0	0.32	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	19		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	7.0		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	11		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	1.1		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: Muni #3

Lab Sample ID: 500-127421-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	1.1		1.0	0.32	ug/L	1		8260B	Total/NA

Client Sample ID: MW-17

Lab Sample ID: 500-127421-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L	1		8260B	Total/NA
Vinyl chloride	11		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 500-127421-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 500-127421-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.6		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	7.3		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	5.8		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: MW-20

Lab Sample ID: 500-127421-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3.6		1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 500-127421-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	5.5		1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-21A

Lab Sample ID: 500-127421-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	37		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.1		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	4.2		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	4.4		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: B-1

Lab Sample ID: 500-127421-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-1A

Lab Sample ID: 500-127421-10

No Detections.

Client Sample ID: B-1B

Lab Sample ID: 500-127421-11

No Detections.

Client Sample ID: B-3

Lab Sample ID: 500-127421-12

No Detections.

Client Sample ID: B-3A

Lab Sample ID: 500-127421-13

No Detections.

Client Sample ID: B-10

Lab Sample ID: 500-127421-14

No Detections.

Client Sample ID: B-11

Lab Sample ID: 500-127421-15

No Detections.

Client Sample ID: B-12

Lab Sample ID: 500-127421-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	9.0		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: B-12 DUP

Lab Sample ID: 500-127421-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	16		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.91	J	1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	8.6		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: B-13

Lab Sample ID: 500-127421-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromodichloromethane	0.87	J	1.0	0.37	ug/L	1		8260B	Total/NA
Chloroform	7.9		2.0	0.37	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	8.8		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	39		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	4.8		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: B-13A

Lab Sample ID: 500-127421-19

No Detections.

Client Sample ID: B-13B

Lab Sample ID: 500-127421-20

No Detections.

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-127421-21

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: Discharge Pipe (Continued)

Lab Sample ID: 500-127421-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.87	J	1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	0.50		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18A

Lab Sample ID: 500-127421-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.84		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19A

Lab Sample ID: 500-127421-23

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 500-127421-24

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-127421-1	EXW-6	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-2	Muni #3	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-3	MW-17	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-4	MW-18	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-5	MW-19	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-6	MW-20	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-7	MW-21	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-8	MW-21A	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-9	B-1	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-10	B-1A	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-11	B-1B	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-12	B-3	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-13	B-3A	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-14	B-10	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-15	B-11	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-16	B-12	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-17	B-12 DUP	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-18	B-13	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-19	B-13A	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-20	B-13B	Ground Water	04/28/17 00:00	05/02/17 09:50
500-127421-21	Discharge Pipe	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-22	MW-18A	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-23	MW-19A	Ground Water	04/27/17 00:00	05/02/17 09:50
500-127421-24	Trip Blank	Water	04/27/17 00:00	05/02/17 09:50

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: EXW-6

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-1

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 00:13	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 00:13	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 00:13	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 00:13	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 00:13	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 00:13	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 00:13	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 00:13	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 00:13	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 00:13	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 00:13	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 00:13	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 00:13	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:13	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 00:13	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 00:13	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 00:13	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 00:13	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 00:13	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 00:13	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 00:13	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 00:13	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 00:13	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 00:13	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 00:13	1
Chloromethane	1.2		1.0	0.32	ug/L			05/09/17 00:13	1
cis-1,2-Dichloroethene	19		1.0	0.41	ug/L			05/09/17 00:13	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 00:13	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 00:13	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 00:13	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 00:13	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 00:13	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 00:13	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 00:13	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 00:13	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 00:13	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 00:13	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: EXW-6

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-1

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:13	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 00:13	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:13	1
Tetrachloroethene	7.0		1.0	0.37	ug/L			05/09/17 00:13	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 00:13	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 00:13	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 00:13	1
Trichloroethene	11		0.50	0.16	ug/L			05/09/17 00:13	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 00:13	1
Vinyl chloride	1.1		0.50	0.20	ug/L			05/09/17 00:13	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 00:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126					05/09/17 00:13	1
4-Bromofluorobenzene (Surr)	92		72 - 124					05/09/17 00:13	1
Dibromofluoromethane	94		75 - 120					05/09/17 00:13	1
Toluene-d8 (Surr)	96		75 - 120					05/09/17 00:13	1

Client Sample ID: Muni #3

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 00:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 00:42	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 00:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 00:42	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 00:42	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 00:42	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 00:42	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 00:42	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 00:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 00:42	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 00:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 00:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 00:42	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:42	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 00:42	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 00:42	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 00:42	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 00:42	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 00:42	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: Muni #3

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 00:42	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 00:42	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 00:42	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 00:42	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 00:42	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 00:42	1
Chloromethane	1.1		1.0	0.32	ug/L			05/09/17 00:42	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 00:42	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 00:42	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 00:42	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 00:42	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 00:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 00:42	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 00:42	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 00:42	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 00:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 00:42	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 00:42	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:42	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 00:42	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 00:42	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 00:42	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 00:42	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 00:42	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 00:42	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 00:42	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 00:42	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 00:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 00:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/09/17 00:42	1
4-Bromofluorobenzene (Surr)	92		72 - 124		05/09/17 00:42	1
Dibromofluoromethane	96		75 - 120		05/09/17 00:42	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 00:42	1

Client Sample ID: MW-17

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 01:11	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 01:11	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 01:11	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-17

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 01:11	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 01:11	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 01:11	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 01:11	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 01:11	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 01:11	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 01:11	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 01:11	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 01:11	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 01:11	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:11	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 01:11	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 01:11	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 01:11	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 01:11	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 01:11	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 01:11	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 01:11	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 01:11	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 01:11	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 01:11	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 01:11	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 01:11	1
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L			05/09/17 01:11	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 01:11	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 01:11	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 01:11	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 01:11	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 01:11	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 01:11	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 01:11	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 01:11	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 01:11	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 01:11	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:11	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 01:11	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:11	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-17

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 01:11	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 01:11	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 01:11	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 01:11	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 01:11	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 01:11	1
Vinyl chloride	11		0.50	0.20	ug/L			05/09/17 01:11	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		05/09/17 01:11	1
4-Bromofluorobenzene (Surr)	93		72 - 124		05/09/17 01:11	1
Dibromofluoromethane	95		75 - 120		05/09/17 01:11	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 01:11	1

Client Sample ID: MW-18

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-4

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 01:40	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 01:40	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 01:40	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 01:40	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 01:40	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 01:40	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 01:40	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 01:40	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 01:40	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 01:40	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 01:40	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 01:40	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 01:40	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:40	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 01:40	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 01:40	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 01:40	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 01:40	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 01:40	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 01:40	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 01:40	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 01:40	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-18
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-4
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 01:40	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 01:40	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 01:40	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 01:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 01:40	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 01:40	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 01:40	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 01:40	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 01:40	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 01:40	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 01:40	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 01:40	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 01:40	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 01:40	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 01:40	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:40	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 01:40	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 01:40	1
Tetrachloroethene	1.1		1.0	0.37	ug/L			05/09/17 01:40	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 01:40	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 01:40	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 01:40	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 01:40	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 01:40	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 01:40	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 01:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/09/17 01:40	1
4-Bromofluorobenzene (Surr)	93		72 - 124		05/09/17 01:40	1
Dibromofluoromethane	96		75 - 120		05/09/17 01:40	1
Toluene-d8 (Surr)	94		75 - 120		05/09/17 01:40	1

Client Sample ID: MW-19
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-5
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 02:09	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 02:09	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 02:09	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 02:09	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 02:09	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-19

Lab Sample ID: 500-127421-5

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 02:09	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 02:09	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 02:09	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 02:09	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 02:09	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 02:09	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 02:09	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 02:09	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:09	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 02:09	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 02:09	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 02:09	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 02:09	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 02:09	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 02:09	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 02:09	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 02:09	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 02:09	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 02:09	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 02:09	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 02:09	1
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L			05/09/17 02:09	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 02:09	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 02:09	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 02:09	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 02:09	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 02:09	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 02:09	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 02:09	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 02:09	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 02:09	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 02:09	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:09	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 02:09	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:09	1
Tetrachloroethene	4.6		1.0	0.37	ug/L			05/09/17 02:09	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 02:09	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 02:09	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-19

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 02:09	1
Trichloroethene	7.3		0.50	0.16	ug/L			05/09/17 02:09	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 02:09	1
Vinyl chloride	5.8		0.50	0.20	ug/L			05/09/17 02:09	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 02:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		05/09/17 02:09	1
4-Bromofluorobenzene (Surr)	92		72 - 124		05/09/17 02:09	1
Dibromofluoromethane	95		75 - 120		05/09/17 02:09	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 02:09	1

Client Sample ID: MW-20

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-6

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 02:38	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 02:38	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 02:38	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 02:38	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 02:38	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 02:38	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 02:38	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 02:38	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 02:38	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 02:38	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 02:38	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 02:38	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 02:38	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:38	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 02:38	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 02:38	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 02:38	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 02:38	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 02:38	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 02:38	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 02:38	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 02:38	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 02:38	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 02:38	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-20
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-6
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 02:38	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 02:38	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 02:38	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 02:38	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 02:38	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 02:38	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 02:38	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 02:38	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 02:38	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 02:38	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 02:38	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 02:38	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 02:38	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:38	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 02:38	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 02:38	1
Tetrachloroethene	3.6		1.0	0.37	ug/L			05/09/17 02:38	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 02:38	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 02:38	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 02:38	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 02:38	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 02:38	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 02:38	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 02:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		05/09/17 02:38	1
4-Bromofluorobenzene (Surr)	94		72 - 124		05/09/17 02:38	1
Dibromofluoromethane	97		75 - 120		05/09/17 02:38	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 02:38	1

Client Sample ID: MW-21
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-7
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 03:08	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 03:08	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 03:08	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 03:08	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 03:08	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 03:08	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 03:08	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 03:08	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-21

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 03:08	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 03:08	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 03:08	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 03:08	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 03:08	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:08	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 03:08	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 03:08	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 03:08	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 03:08	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 03:08	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 03:08	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 03:08	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 03:08	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 03:08	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 03:08	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 03:08	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 03:08	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 03:08	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 03:08	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 03:08	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 03:08	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 03:08	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 03:08	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 03:08	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 03:08	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 03:08	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 03:08	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 03:08	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:08	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 03:08	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:08	1
Tetrachloroethene	5.5		1.0	0.37	ug/L			05/09/17 03:08	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 03:08	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 03:08	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 03:08	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 03:08	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 03:08	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-21

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 03:08	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 03:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126					05/09/17 03:08	1
4-Bromofluorobenzene (Surr)	95		72 - 124					05/09/17 03:08	1
Dibromofluoromethane	96		75 - 120					05/09/17 03:08	1
Toluene-d8 (Surr)	95		75 - 120					05/09/17 03:08	1

Client Sample ID: MW-21A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-8

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 03:37	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 03:37	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 03:37	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 03:37	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 03:37	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 03:37	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 03:37	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 03:37	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 03:37	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 03:37	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 03:37	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 03:37	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 03:37	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:37	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 03:37	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 03:37	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 03:37	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 03:37	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 03:37	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 03:37	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 03:37	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 03:37	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 03:37	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 03:37	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 03:37	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 03:37	1
cis-1,2-Dichloroethene	37		1.0	0.41	ug/L			05/09/17 03:37	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-21A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-8

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 03:37	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 03:37	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 03:37	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 03:37	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 03:37	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 03:37	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 03:37	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 03:37	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 03:37	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 03:37	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:37	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 03:37	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 03:37	1
Tetrachloroethene	2.1		1.0	0.37	ug/L			05/09/17 03:37	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 03:37	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 03:37	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 03:37	1
Trichloroethene	4.2		0.50	0.16	ug/L			05/09/17 03:37	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 03:37	1
Vinyl chloride	4.4		0.50	0.20	ug/L			05/09/17 03:37	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 03:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/09/17 03:37	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/09/17 03:37	1
Dibromofluoromethane	96		75 - 120		05/09/17 03:37	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 03:37	1

Client Sample ID: B-1

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-9

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 04:06	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 04:06	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 04:06	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 04:06	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 04:06	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 04:06	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 04:06	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 04:06	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 04:06	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 04:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-1

Lab Sample ID: 500-127421-9

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 04:06	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 04:06	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 04:06	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:06	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 04:06	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 04:06	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 04:06	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 04:06	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 04:06	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 04:06	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 04:06	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 04:06	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 04:06	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 04:06	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 04:06	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 04:06	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 04:06	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 04:06	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 04:06	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 04:06	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 04:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 04:06	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 04:06	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 04:06	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 04:06	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 04:06	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 04:06	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:06	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 04:06	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:06	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 04:06	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 04:06	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 04:06	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 04:06	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 04:06	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 04:06	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 04:06	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 04:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-1

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-9

Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		05/09/17 04:06	1
4-Bromofluorobenzene (Surr)	94		72 - 124		05/09/17 04:06	1
Dibromofluoromethane	95		75 - 120		05/09/17 04:06	1
Toluene-d8 (Surr)	96		75 - 120		05/09/17 04:06	1

Client Sample ID: B-1A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-10

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 04:35	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 04:35	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 04:35	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 04:35	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 04:35	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 04:35	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 04:35	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 04:35	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 04:35	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 04:35	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 04:35	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 04:35	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 04:35	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:35	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 04:35	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 04:35	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 04:35	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 04:35	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 04:35	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 04:35	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 04:35	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 04:35	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 04:35	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 04:35	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 04:35	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 04:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 04:35	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 04:35	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 04:35	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 04:35	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 04:35	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-1A
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-10
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 04:35	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 04:35	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 04:35	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 04:35	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 04:35	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 04:35	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:35	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 04:35	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 04:35	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 04:35	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 04:35	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 04:35	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 04:35	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 04:35	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 04:35	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 04:35	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 04:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/09/17 04:35	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/09/17 04:35	1
Dibromofluoromethane	96		75 - 120		05/09/17 04:35	1
Toluene-d8 (Surr)	94		75 - 120		05/09/17 04:35	1

Client Sample ID: B-1B
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-11
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 05:04	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 05:04	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 05:04	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 05:04	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 05:04	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 05:04	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 05:04	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 05:04	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 05:04	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 05:04	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 05:04	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 05:04	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-1B
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-11
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 05:04	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:04	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 05:04	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 05:04	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 05:04	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 05:04	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 05:04	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 05:04	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 05:04	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 05:04	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 05:04	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 05:04	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 05:04	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 05:04	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 05:04	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 05:04	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 05:04	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 05:04	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 05:04	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 05:04	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 05:04	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 05:04	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 05:04	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 05:04	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 05:04	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:04	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 05:04	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:04	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 05:04	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 05:04	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 05:04	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 05:04	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 05:04	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 05:04	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 05:04	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 05:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/09/17 05:04	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/09/17 05:04	1
Dibromofluoromethane	98		75 - 120		05/09/17 05:04	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 05:04	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-3

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-12

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 05:33	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 05:33	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 05:33	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 05:33	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 05:33	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 05:33	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 05:33	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 05:33	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 05:33	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 05:33	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 05:33	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 05:33	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 05:33	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:33	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 05:33	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 05:33	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 05:33	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 05:33	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 05:33	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 05:33	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 05:33	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 05:33	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 05:33	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 05:33	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 05:33	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 05:33	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 05:33	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 05:33	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 05:33	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 05:33	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 05:33	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 05:33	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 05:33	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 05:33	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 05:33	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 05:33	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 05:33	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-3

Lab Sample ID: 500-127421-12

Date Collected: 04/28/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:33	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 05:33	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 05:33	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 05:33	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 05:33	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 05:33	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 05:33	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 05:33	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 05:33	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 05:33	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 05:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 126					05/09/17 05:33	1
4-Bromofluorobenzene (Surr)	94		72 - 124					05/09/17 05:33	1
Dibromofluoromethane	96		75 - 120					05/09/17 05:33	1
Toluene-d8 (Surr)	95		75 - 120					05/09/17 05:33	1

Client Sample ID: B-3A

Lab Sample ID: 500-127421-13

Date Collected: 04/28/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 06:02	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 06:02	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 06:02	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 06:02	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 06:02	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 06:02	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 06:02	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 06:02	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 06:02	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 06:02	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 06:02	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 06:02	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 06:02	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:02	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 06:02	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 06:02	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 06:02	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 06:02	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 06:02	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-3A
Date Collected: 04/28/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-13
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 06:02	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 06:02	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 06:02	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 06:02	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 06:02	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 06:02	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 06:02	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 06:02	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 06:02	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 06:02	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 06:02	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 06:02	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 06:02	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 06:02	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 06:02	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 06:02	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 06:02	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 06:02	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:02	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 06:02	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:02	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 06:02	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 06:02	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 06:02	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 06:02	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 06:02	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 06:02	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 06:02	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 06:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		05/09/17 06:02	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/09/17 06:02	1
Dibromofluoromethane	95		75 - 120		05/09/17 06:02	1
Toluene-d8 (Surr)	97		75 - 120		05/09/17 06:02	1

Client Sample ID: B-10
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-14
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 06:31	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 06:31	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 06:31	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-10

Lab Sample ID: 500-127421-14

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 06:31	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 06:31	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 06:31	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 06:31	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 06:31	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 06:31	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 06:31	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 06:31	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 06:31	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 06:31	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:31	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 06:31	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 06:31	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 06:31	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 06:31	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 06:31	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 06:31	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 06:31	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 06:31	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 06:31	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 06:31	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 06:31	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 06:31	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 06:31	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 06:31	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 06:31	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 06:31	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 06:31	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 06:31	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 06:31	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 06:31	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 06:31	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 06:31	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 06:31	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:31	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 06:31	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 06:31	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-10

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-14

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 06:31	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 06:31	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 06:31	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 06:31	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 06:31	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 06:31	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 06:31	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 06:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126					05/09/17 06:31	1
4-Bromofluorobenzene (Surr)	95		72 - 124					05/09/17 06:31	1
Dibromofluoromethane	95		75 - 120					05/09/17 06:31	1
Toluene-d8 (Surr)	95		75 - 120					05/09/17 06:31	1

Client Sample ID: B-11

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-15

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 07:00	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 07:00	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 07:00	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 07:00	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 07:00	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 07:00	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 07:00	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 07:00	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 07:00	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 07:00	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 07:00	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 07:00	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 07:00	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:00	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 07:00	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 07:00	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 07:00	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 07:00	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 07:00	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 07:00	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 07:00	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 07:00	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-11

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-15

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 07:00	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 07:00	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 07:00	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 07:00	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 07:00	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 07:00	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 07:00	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 07:00	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 07:00	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 07:00	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 07:00	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 07:00	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 07:00	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 07:00	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 07:00	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:00	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 07:00	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:00	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 07:00	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 07:00	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 07:00	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 07:00	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 07:00	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 07:00	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 07:00	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 07:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/09/17 07:00	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/09/17 07:00	1
Dibromofluoromethane	97		75 - 120		05/09/17 07:00	1
Toluene-d8 (Surr)	96		75 - 120		05/09/17 07:00	1

Client Sample ID: B-12

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-16

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 07:29	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 07:29	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 07:29	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 07:29	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 07:29	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-12

Lab Sample ID: 500-127421-16

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 07:29	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 07:29	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 07:29	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 07:29	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 07:29	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 07:29	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 07:29	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 07:29	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:29	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 07:29	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 07:29	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 07:29	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 07:29	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 07:29	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 07:29	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 07:29	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 07:29	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 07:29	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 07:29	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 07:29	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 07:29	1
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L			05/09/17 07:29	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 07:29	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 07:29	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 07:29	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 07:29	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 07:29	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 07:29	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 07:29	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 07:29	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 07:29	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 07:29	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:29	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 07:29	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 07:29	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 07:29	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 07:29	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 07:29	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-12

Lab Sample ID: 500-127421-16

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 07:29	1
Trichloroethene	9.0		0.50	0.16	ug/L			05/09/17 07:29	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 07:29	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 07:29	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 07:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/09/17 07:29	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/09/17 07:29	1
Dibromofluoromethane	97		75 - 120		05/09/17 07:29	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 07:29	1

Client Sample ID: B-12 DUP

Lab Sample ID: 500-127421-17

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 03:13	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 03:13	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 03:13	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 03:13	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 03:13	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 03:13	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 03:13	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 03:13	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 03:13	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 03:13	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 03:13	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 03:13	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 03:13	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:13	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 03:13	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 03:13	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 03:13	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 03:13	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 03:13	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 03:13	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 03:13	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 03:13	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 03:13	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 03:13	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-12 DUP

Lab Sample ID: 500-127421-17

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 03:13	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 03:13	1
cis-1,2-Dichloroethene	16		1.0	0.41	ug/L			05/10/17 03:13	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 03:13	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 03:13	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 03:13	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 03:13	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 03:13	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 03:13	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 03:13	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 03:13	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 03:13	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 03:13	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:13	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 03:13	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:13	1
Tetrachloroethene	0.91 J		1.0	0.37	ug/L			05/10/17 03:13	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 03:13	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 03:13	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 03:13	1
Trichloroethene	8.6		0.50	0.16	ug/L			05/10/17 03:13	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 03:13	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 03:13	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 03:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/10/17 03:13	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/10/17 03:13	1
Dibromofluoromethane	97		75 - 120		05/10/17 03:13	1
Toluene-d8 (Surr)	95		75 - 120		05/10/17 03:13	1

Client Sample ID: B-13

Lab Sample ID: 500-127421-18

Date Collected: 04/28/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 03:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 03:42	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 03:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 03:42	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 03:42	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 03:42	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 03:42	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 03:42	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13

Lab Sample ID: 500-127421-18

Date Collected: 04/28/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 03:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 03:42	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 03:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 03:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 03:42	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:42	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 03:42	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 03:42	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 03:42	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 03:42	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 03:42	1
Bromodichloromethane	0.87	J	1.0	0.37	ug/L			05/10/17 03:42	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 03:42	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 03:42	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 03:42	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 03:42	1
Chloroform	7.9		2.0	0.37	ug/L			05/10/17 03:42	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 03:42	1
cis-1,2-Dichloroethene	8.8		1.0	0.41	ug/L			05/10/17 03:42	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 03:42	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 03:42	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 03:42	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 03:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 03:42	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 03:42	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 03:42	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 03:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 03:42	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 03:42	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:42	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 03:42	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 03:42	1
Tetrachloroethene	39		1.0	0.37	ug/L			05/10/17 03:42	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 03:42	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 03:42	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 03:42	1
Trichloroethene	4.8		0.50	0.16	ug/L			05/10/17 03:42	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 03:42	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-18

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 03:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 03:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126					05/10/17 03:42	1
4-Bromofluorobenzene (Surr)	96		72 - 124					05/10/17 03:42	1
Dibromofluoromethane	96		75 - 120					05/10/17 03:42	1
Toluene-d8 (Surr)	95		75 - 120					05/10/17 03:42	1

Client Sample ID: B-13A

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-19

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 04:12	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 04:12	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 04:12	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 04:12	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 04:12	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 04:12	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 04:12	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 04:12	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 04:12	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 04:12	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 04:12	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 04:12	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 04:12	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:12	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 04:12	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 04:12	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 04:12	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 04:12	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 04:12	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 04:12	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 04:12	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 04:12	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 04:12	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 04:12	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 04:12	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 04:12	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/17 04:12	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13A

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-19

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 04:12	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 04:12	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 04:12	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 04:12	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 04:12	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 04:12	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 04:12	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 04:12	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 04:12	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 04:12	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:12	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 04:12	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:12	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/17 04:12	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 04:12	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 04:12	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 04:12	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/17 04:12	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 04:12	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 04:12	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 04:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126		05/10/17 04:12	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/10/17 04:12	1
Dibromofluoromethane	98		75 - 120		05/10/17 04:12	1
Toluene-d8 (Surr)	94		75 - 120		05/10/17 04:12	1

Client Sample ID: B-13B

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-20

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 04:41	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 04:41	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 04:41	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 04:41	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 04:41	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 04:41	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 04:41	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 04:41	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 04:41	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 04:41	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13B

Lab Sample ID: 500-127421-20

Date Collected: 04/28/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 04:41	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 04:41	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 04:41	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:41	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 04:41	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 04:41	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 04:41	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 04:41	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 04:41	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 04:41	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 04:41	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 04:41	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 04:41	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 04:41	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 04:41	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 04:41	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/17 04:41	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 04:41	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 04:41	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 04:41	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 04:41	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 04:41	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 04:41	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 04:41	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 04:41	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 04:41	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 04:41	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:41	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 04:41	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 04:41	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/17 04:41	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 04:41	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 04:41	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 04:41	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/17 04:41	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 04:41	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 04:41	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 04:41	1

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13B
Date Collected: 04/28/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-20
Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/10/17 04:41	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/10/17 04:41	1
Dibromofluoromethane	96		75 - 120		05/10/17 04:41	1
Toluene-d8 (Surr)	95		75 - 120		05/10/17 04:41	1

Client Sample ID: Discharge Pipe
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-21
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 05:10	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 05:10	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 05:10	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 05:10	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 05:10	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 05:10	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 05:10	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 05:10	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 05:10	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 05:10	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 05:10	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 05:10	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 05:10	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:10	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 05:10	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 05:10	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 05:10	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 05:10	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 05:10	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 05:10	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 05:10	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 05:10	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 05:10	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 05:10	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 05:10	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 05:10	1
cis-1,2-Dichloroethene	0.87	J	1.0	0.41	ug/L			05/10/17 05:10	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 05:10	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 05:10	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 05:10	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 05:10	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-127421-21

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 05:10	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 05:10	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 05:10	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 05:10	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 05:10	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 05:10	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:10	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 05:10	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:10	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/17 05:10	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 05:10	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 05:10	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 05:10	1
Trichloroethene	0.50		0.50	0.16	ug/L			05/10/17 05:10	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 05:10	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 05:10	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		05/10/17 05:10	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/10/17 05:10	1
Dibromofluoromethane	99		75 - 120		05/10/17 05:10	1
Toluene-d8 (Surr)	95		75 - 120		05/10/17 05:10	1

Client Sample ID: MW-18A

Lab Sample ID: 500-127421-22

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 05:39	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 05:39	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 05:39	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 05:39	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 05:39	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 05:39	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 05:39	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 05:39	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 05:39	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 05:39	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 05:39	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 05:39	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-18A

Lab Sample ID: 500-127421-22

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 05:39	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:39	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 05:39	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 05:39	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 05:39	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 05:39	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 05:39	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 05:39	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 05:39	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 05:39	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 05:39	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 05:39	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 05:39	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 05:39	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/17 05:39	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 05:39	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 05:39	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 05:39	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 05:39	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 05:39	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 05:39	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 05:39	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 05:39	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 05:39	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 05:39	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:39	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 05:39	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 05:39	1
Tetrachloroethene	1.1		1.0	0.37	ug/L			05/10/17 05:39	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 05:39	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 05:39	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 05:39	1
Trichloroethene	0.84		0.50	0.16	ug/L			05/10/17 05:39	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 05:39	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 05:39	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		05/10/17 05:39	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/10/17 05:39	1
Dibromofluoromethane	97		75 - 120		05/10/17 05:39	1
Toluene-d8 (Surr)	95		75 - 120		05/10/17 05:39	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-19A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-23

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 06:09	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 06:09	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 06:09	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 06:09	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 06:09	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 06:09	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 06:09	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 06:09	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 06:09	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 06:09	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 06:09	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 06:09	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 06:09	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:09	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 06:09	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 06:09	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 06:09	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 06:09	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 06:09	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 06:09	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 06:09	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 06:09	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 06:09	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 06:09	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 06:09	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 06:09	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/17 06:09	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 06:09	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 06:09	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 06:09	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 06:09	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 06:09	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 06:09	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 06:09	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 06:09	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 06:09	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 06:09	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-19A

Lab Sample ID: 500-127421-23

Date Collected: 04/27/17 00:00

Matrix: Ground Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:09	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 06:09	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:09	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/17 06:09	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 06:09	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 06:09	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 06:09	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/17 06:09	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 06:09	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 06:09	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 06:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 126					05/10/17 06:09	1
4-Bromofluorobenzene (Surr)	96		72 - 124					05/10/17 06:09	1
Dibromofluoromethane	98		75 - 120					05/10/17 06:09	1
Toluene-d8 (Surr)	95		75 - 120					05/10/17 06:09	1

Client Sample ID: Trip Blank

Lab Sample ID: 500-127421-24

Date Collected: 04/27/17 00:00

Matrix: Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/17 06:38	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/17 06:38	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/17 06:38	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/17 06:38	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/17 06:38	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/17 06:38	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/17 06:38	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/17 06:38	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/17 06:38	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/17 06:38	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/17 06:38	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/17 06:38	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/17 06:38	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:38	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/17 06:38	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/17 06:38	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/17 06:38	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/17 06:38	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/17 06:38	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-127421-24

Date Collected: 04/27/17 00:00

Matrix: Water

Date Received: 05/02/17 09:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/17 06:38	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/17 06:38	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/17 06:38	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/17 06:38	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/17 06:38	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/17 06:38	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/17 06:38	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/17 06:38	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/17 06:38	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/17 06:38	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/17 06:38	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/17 06:38	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/17 06:38	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/17 06:38	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/17 06:38	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/17 06:38	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/17 06:38	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/17 06:38	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:38	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/17 06:38	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/17 06:38	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/17 06:38	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/17 06:38	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/17 06:38	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/17 06:38	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/17 06:38	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/17 06:38	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/10/17 06:38	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/17 06:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		05/10/17 06:38	1
4-Bromofluorobenzene (Surr)	98		72 - 124		05/10/17 06:38	1
Dibromofluoromethane	96		75 - 120		05/10/17 06:38	1
Toluene-d8 (Surr)	95		75 - 120		05/10/17 06:38	1

Definitions/Glossary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

QC Association Summary

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

GC/MS VOA

Analysis Batch: 384264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-127421-1	EXW-6	Total/NA	Ground Water	8260B	
500-127421-2	Muni #3	Total/NA	Ground Water	8260B	
500-127421-3	MW-17	Total/NA	Ground Water	8260B	
500-127421-4	MW-18	Total/NA	Ground Water	8260B	
500-127421-5	MW-19	Total/NA	Ground Water	8260B	
500-127421-6	MW-20	Total/NA	Ground Water	8260B	
500-127421-7	MW-21	Total/NA	Ground Water	8260B	
500-127421-8	MW-21A	Total/NA	Ground Water	8260B	
500-127421-9	B-1	Total/NA	Ground Water	8260B	
500-127421-10	B-1A	Total/NA	Ground Water	8260B	
500-127421-11	B-1B	Total/NA	Ground Water	8260B	
500-127421-12	B-3	Total/NA	Ground Water	8260B	
500-127421-13	B-3A	Total/NA	Ground Water	8260B	
500-127421-14	B-10	Total/NA	Ground Water	8260B	
500-127421-15	B-11	Total/NA	Ground Water	8260B	
500-127421-16	B-12	Total/NA	Ground Water	8260B	
MB 500-384264/6	Method Blank	Total/NA	Water	8260B	
LCS 500-384264/4	Lab Control Sample	Total/NA	Water	8260B	
500-127421-16 MS	B-12	Total/NA	Ground Water	8260B	
500-127421-16 MSD	B-12	Total/NA	Ground Water	8260B	

Analysis Batch: 384417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-127421-17	B-12 DUP	Total/NA	Ground Water	8260B	
500-127421-18	B-13	Total/NA	Ground Water	8260B	
500-127421-19	B-13A	Total/NA	Ground Water	8260B	
500-127421-20	B-13B	Total/NA	Ground Water	8260B	
500-127421-21	Discharge Pipe	Total/NA	Ground Water	8260B	
500-127421-22	MW-18A	Total/NA	Ground Water	8260B	
500-127421-23	MW-19A	Total/NA	Ground Water	8260B	
500-127421-24	Trip Blank	Total/NA	Water	8260B	
MB 500-384417/6	Method Blank	Total/NA	Water	8260B	
LCS 500-384417/4	Lab Control Sample	Total/NA	Water	8260B	

Surrogate Summary

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-127421-1	EXW-6	88	92	94	96
500-127421-2	Muni #3	90	92	96	95
500-127421-3	MW-17	88	93	95	95
500-127421-4	MW-18	89	93	96	94
500-127421-5	MW-19	91	92	95	95
500-127421-6	MW-20	91	94	97	95
500-127421-7	MW-21	89	95	96	95
500-127421-8	MW-21A	90	95	96	95
500-127421-9	B-1	88	94	95	96
500-127421-10	B-1A	90	95	96	94
500-127421-11	B-1B	90	95	98	95
500-127421-12	B-3	92	94	96	95
500-127421-13	B-3A	87	96	95	97
500-127421-14	B-10	90	95	95	95
500-127421-15	B-11	89	95	97	96
500-127421-16	B-12	89	96	97	95
500-127421-16 MS	B-12	88	93	95	98
500-127421-16 MSD	B-12	88	93	96	98
500-127421-17	B-12 DUP	90	95	97	95
500-127421-18	B-13	89	96	96	95
500-127421-19	B-13A	93	96	98	94
500-127421-20	B-13B	89	96	96	95
500-127421-21	Discharge Pipe	91	96	99	95
500-127421-22	MW-18A	89	95	97	95
500-127421-23	MW-19A	92	96	98	95

Surrogate Legend

- 12DCE = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-127421-24	Trip Blank	90	98	96	95
LCS 500-384264/4	Lab Control Sample	87	93	94	98
LCS 500-384417/4	Lab Control Sample	89	94	96	98
MB 500-384264/6	Method Blank	91	95	96	95
MB 500-384417/6	Method Blank	94	96	99	95

Surrogate Legend

- 12DCE = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-384264/6

Matrix: Water

Analysis Batch: 384264

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/08/17 23:44	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/08/17 23:44	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/08/17 23:44	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/08/17 23:44	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/08/17 23:44	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/08/17 23:44	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/08/17 23:44	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/08/17 23:44	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/08/17 23:44	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/08/17 23:44	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/08/17 23:44	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/08/17 23:44	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/08/17 23:44	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/08/17 23:44	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/08/17 23:44	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/08/17 23:44	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/08/17 23:44	1
Benzene	<0.15		0.50	0.15	ug/L			05/08/17 23:44	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/08/17 23:44	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/08/17 23:44	1
Bromoform	<0.48		1.0	0.48	ug/L			05/08/17 23:44	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/08/17 23:44	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/08/17 23:44	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/08/17 23:44	1
Chloroform	<0.37		2.0	0.37	ug/L			05/08/17 23:44	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/08/17 23:44	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/08/17 23:44	1
cis-1,3-Dichloropropane	<0.42		1.0	0.42	ug/L			05/08/17 23:44	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/08/17 23:44	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/08/17 23:44	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/08/17 23:44	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/08/17 23:44	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/08/17 23:44	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/08/17 23:44	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/08/17 23:44	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/08/17 23:44	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/08/17 23:44	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-384264/6
Matrix: Water
Analysis Batch: 384264

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/08/17 23:44	1
Styrene	<0.39		1.0	0.39	ug/L			05/08/17 23:44	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/08/17 23:44	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/08/17 23:44	1
Toluene	<0.15		0.50	0.15	ug/L			05/08/17 23:44	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/08/17 23:44	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/08/17 23:44	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/08/17 23:44	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/08/17 23:44	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/08/17 23:44	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/08/17 23:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		05/08/17 23:44	1
4-Bromofluorobenzene (Surr)	95		72 - 124		05/08/17 23:44	1
Dibromofluoromethane	96		75 - 120		05/08/17 23:44	1
Toluene-d8 (Surr)	95		75 - 120		05/08/17 23:44	1

Lab Sample ID: LCS 500-384264/4
Matrix: Water
Analysis Batch: 384264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	49.4		ug/L		99	70 - 125
1,1,1-Trichloroethane	50.0	42.7		ug/L		85	70 - 125
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/L		93	67 - 127
1,1,1,2-Trichloroethane	50.0	48.3		ug/L		97	70 - 122
1,1-Dichloroethane	50.0	44.8		ug/L		90	70 - 125
1,1-Dichloroethene	50.0	47.2		ug/L		94	67 - 122
1,1-Dichloropropene	50.0	44.1		ug/L		88	70 - 121
1,2,3-Trichlorobenzene	50.0	38.3		ug/L		77	55 - 140
1,2,3-Trichloropropane	50.0	40.4		ug/L		81	50 - 133
1,2,4-Trichlorobenzene	50.0	36.4		ug/L		73	66 - 127
1,2,4-Trimethylbenzene	50.0	49.4		ug/L		99	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	36.3		ug/L		73	56 - 123
1,2-Dibromoethane	50.0	46.7		ug/L		93	70 - 125
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 125
1,2-Dichloroethane	50.0	43.1		ug/L		86	68 - 127
1,2-Dichloropropane	50.0	48.3		ug/L		97	67 - 130
1,3,5-Trimethylbenzene	50.0	49.6		ug/L		99	70 - 123
1,3-Dichlorobenzene	50.0	49.4		ug/L		99	70 - 125
1,3-Dichloropropane	50.0	47.0		ug/L		94	62 - 136
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	70 - 120
2,2-Dichloropropane	50.0	32.7		ug/L		65	58 - 129
2-Chlorotoluene	50.0	47.4		ug/L		95	70 - 125
4-Chlorotoluene	50.0	46.2		ug/L		92	68 - 124
Benzene	50.0	45.0		ug/L		90	70 - 120

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-384264/4
Matrix: Water
Analysis Batch: 384264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	50.4		ug/L		101	70 - 122
Bromochloromethane	50.0	49.0		ug/L		98	65 - 122
Bromodichloromethane	50.0	42.6		ug/L		85	69 - 120
Bromoform	50.0	49.9		ug/L		100	56 - 132
Bromomethane	50.0	54.7		ug/L		109	40 - 130
Carbon tetrachloride	50.0	43.1		ug/L		86	65 - 122
Chlorobenzene	50.0	48.9		ug/L		98	70 - 120
Chloroethane	50.0	40.8		ug/L		82	45 - 127
Chloroform	50.0	43.4		ug/L		87	70 - 120
Chloromethane	50.0	44.5		ug/L		89	54 - 147
cis-1,2-Dichloroethene	50.0	46.7		ug/L		93	70 - 125
cis-1,3-Dichloropropene	50.0	41.2		ug/L		82	64 - 127
Dibromochloromethane	50.0	48.8		ug/L		98	68 - 125
Dibromomethane	50.0	44.5		ug/L		89	70 - 120
Dichlorodifluoromethane	50.0	32.1		ug/L		64	40 - 150
Ethylbenzene	50.0	48.2		ug/L		96	70 - 120
Hexachlorobutadiene	50.0	48.8		ug/L		98	51 - 150
Isopropylbenzene	50.0	49.3		ug/L		99	70 - 126
Methyl tert-butyl ether	50.0	35.6		ug/L		71	70 - 120
Methylene Chloride	50.0	43.8		ug/L		88	69 - 125
Naphthalene	50.0	34.1		ug/L		68	59 - 130
n-Butylbenzene	50.0	43.6		ug/L		87	68 - 125
N-Propylbenzene	50.0	47.2		ug/L		94	69 - 127
p-Isopropyltoluene	50.0	49.1		ug/L		98	70 - 125
sec-Butylbenzene	50.0	49.1		ug/L		98	70 - 123
Styrene	50.0	48.1		ug/L		96	70 - 120
tert-Butylbenzene	50.0	48.0		ug/L		96	70 - 121
Tetrachloroethene	50.0	49.2		ug/L		98	70 - 128
Toluene	50.0	46.1		ug/L		92	70 - 125
trans-1,2-Dichloroethene	50.0	46.8		ug/L		94	70 - 125
trans-1,3-Dichloropropene	50.0	39.6		ug/L		79	62 - 128
Trichloroethene	50.0	49.5		ug/L		99	70 - 125
Trichlorofluoromethane	50.0	40.6		ug/L		81	70 - 126
Vinyl chloride	50.0	45.0		ug/L		90	64 - 126
Xylenes, Total	100	91.1		ug/L		91	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		75 - 126
4-Bromofluorobenzene (Surr)	93		72 - 124
Dibromofluoromethane	94		75 - 120
Toluene-d8 (Surr)	98		75 - 120

Lab Sample ID: 500-127421-16 MS
Matrix: Ground Water
Analysis Batch: 384264

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<0.46		50.0	50.9		ug/L		102	70 - 125

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-127421-16 MS

Matrix: Ground Water

Analysis Batch: 384264

Client Sample ID: B-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	<0.38		50.0	43.7		ug/L		87	70 - 125
1,1,1,2-Tetrachloroethane	<0.40		50.0	48.6		ug/L		97	67 - 127
1,1,2-Trichloroethane	<0.35		50.0	50.2		ug/L		100	70 - 122
1,1-Dichloroethane	<0.41		50.0	46.2		ug/L		92	70 - 125
1,1-Dichloroethene	<0.39		50.0	48.7		ug/L		97	67 - 122
1,1-Dichloropropene	<0.30		50.0	45.6		ug/L		91	70 - 121
1,2,3-Trichlorobenzene	<0.46		50.0	38.6		ug/L		77	55 - 140
1,2,3-Trichloropropane	<0.41		50.0	40.4		ug/L		81	50 - 133
1,2,4-Trichlorobenzene	<0.34		50.0	37.2		ug/L		74	66 - 127
1,2,4-Trimethylbenzene	<0.36		50.0	50.7		ug/L		101	70 - 123
1,2-Dibromo-3-Chloropropane	<2.0		50.0	37.6		ug/L		75	56 - 123
1,2-Dibromoethane	<0.39		50.0	48.7		ug/L		97	70 - 125
1,2-Dichlorobenzene	<0.33		50.0	51.0		ug/L		102	70 - 125
1,2-Dichloroethane	<0.39		50.0	45.2		ug/L		90	68 - 127
1,2-Dichloropropane	<0.43		50.0	49.9		ug/L		100	67 - 130
1,3,5-Trimethylbenzene	<0.25		50.0	50.7		ug/L		101	70 - 123
1,3-Dichlorobenzene	<0.40		50.0	51.2		ug/L		102	70 - 125
1,3-Dichloropropane	<0.36		50.0	48.7		ug/L		97	62 - 136
1,4-Dichlorobenzene	<0.36		50.0	50.7		ug/L		101	70 - 120
2,2-Dichloropropane	<0.44		50.0	33.7		ug/L		67	58 - 129
2-Chlorotoluene	<0.31		50.0	48.4		ug/L		97	70 - 125
4-Chlorotoluene	<0.35		50.0	47.3		ug/L		95	68 - 124
Benzene	<0.15		50.0	46.4		ug/L		93	70 - 120
Bromobenzene	<0.36		50.0	51.0		ug/L		102	70 - 122
Bromochloromethane	<0.43		50.0	52.0		ug/L		104	65 - 122
Bromodichloromethane	<0.37		50.0	44.1		ug/L		88	69 - 120
Bromoform	<0.48		50.0	51.1		ug/L		102	56 - 132
Bromomethane	<0.80		50.0	57.3		ug/L		115	40 - 130
Carbon tetrachloride	<0.38		50.0	45.0		ug/L		90	65 - 122
Chlorobenzene	<0.39		50.0	51.0		ug/L		102	70 - 120
Chloroethane	<0.51		50.0	42.0		ug/L		84	45 - 127
Chloroform	<0.37		50.0	44.6		ug/L		89	70 - 120
Chloromethane	<0.32		50.0	40.6		ug/L		81	54 - 147
cis-1,2-Dichloroethene	17		50.0	65.8		ug/L		98	70 - 125
cis-1,3-Dichloropropene	<0.42		50.0	42.2		ug/L		84	64 - 127
Dibromochloromethane	<0.49		50.0	51.2		ug/L		102	68 - 125
Dibromomethane	<0.27		50.0	46.5		ug/L		93	70 - 120
Dichlorodifluoromethane	<0.67		50.0	30.5		ug/L		61	40 - 150
Ethylbenzene	<0.18		50.0	50.5		ug/L		101	70 - 120
Hexachlorobutadiene	<0.45		50.0	49.7		ug/L		99	51 - 150
Isopropylbenzene	<0.39		50.0	50.6		ug/L		101	70 - 126
Methyl tert-butyl ether	<0.39		50.0	35.8		ug/L		72	70 - 120
Methylene Chloride	<1.6		50.0	45.8		ug/L		92	69 - 125
Naphthalene	<0.34		50.0	32.9		ug/L		66	59 - 130
n-Butylbenzene	<0.39		50.0	45.1		ug/L		90	68 - 125
N-Propylbenzene	<0.41		50.0	48.7		ug/L		97	69 - 127
p-Isopropyltoluene	<0.36		50.0	50.2		ug/L		100	70 - 125
sec-Butylbenzene	<0.40		50.0	50.2		ug/L		100	70 - 123

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-127421-16 MS

Matrix: Ground Water

Analysis Batch: 384264

Client Sample ID: B-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	<0.39		50.0	49.5		ug/L		99	70 - 120
tert-Butylbenzene	<0.40		50.0	49.1		ug/L		98	70 - 121
Tetrachloroethene	<0.37		50.0	52.1		ug/L		102	70 - 128
Toluene	<0.15		50.0	48.2		ug/L		96	70 - 125
trans-1,2-Dichloroethene	<0.35		50.0	48.6		ug/L		97	70 - 125
trans-1,3-Dichloropropene	<0.36		50.0	40.2		ug/L		80	62 - 128
Trichloroethene	9.0		50.0	60.2		ug/L		102	70 - 125
Trichlorofluoromethane	<0.43		50.0	41.0		ug/L		82	70 - 126
Vinyl chloride	<0.20		50.0	44.3		ug/L		89	64 - 126
Xylenes, Total	<0.22		100	95.0		ug/L		95	70 - 125
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	88		75 - 126						
4-Bromofluorobenzene (Surr)	93		72 - 124						
Dibromofluoromethane	95		75 - 120						
Toluene-d8 (Surr)	98		75 - 120						

Lab Sample ID: 500-127421-16 MSD

Matrix: Ground Water

Analysis Batch: 384264

Client Sample ID: B-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<0.46		50.0	52.5		ug/L		105	70 - 125	3	20
1,1,1-Trichloroethane	<0.38		50.0	44.3		ug/L		89	70 - 125	1	20
1,1,1,2,2-Tetrachloroethane	<0.40		50.0	50.6		ug/L		101	67 - 127	4	20
1,1,1,2-Trichloroethane	<0.35		50.0	51.7		ug/L		103	70 - 122	3	20
1,1-Dichloroethane	<0.41		50.0	47.0		ug/L		94	70 - 125	2	20
1,1-Dichloroethene	<0.39		50.0	49.8		ug/L		100	67 - 122	2	20
1,1-Dichloropropene	<0.30		50.0	46.4		ug/L		93	70 - 121	2	20
1,2,3-Trichlorobenzene	<0.46		50.0	42.0		ug/L		84	55 - 140	8	20
1,2,3-Trichloropropane	<0.41		50.0	43.0		ug/L		86	50 - 133	6	20
1,2,4-Trichlorobenzene	<0.34		50.0	40.2		ug/L		80	66 - 127	8	20
1,2,4-Trimethylbenzene	<0.36		50.0	52.4		ug/L		105	70 - 123	3	20
1,2-Dibromo-3-Chloropropane	<2.0		50.0	40.9		ug/L		82	56 - 123	8	20
1,2-Dibromoethane	<0.39		50.0	50.9		ug/L		102	70 - 125	4	20
1,2-Dichlorobenzene	<0.33		50.0	53.3		ug/L		107	70 - 125	5	20
1,2-Dichloroethane	<0.39		50.0	46.8		ug/L		94	68 - 127	4	20
1,2-Dichloropropane	<0.43		50.0	51.2		ug/L		102	67 - 130	3	20
1,3,5-Trimethylbenzene	<0.25		50.0	51.9		ug/L		104	70 - 123	2	20
1,3-Dichlorobenzene	<0.40		50.0	52.4		ug/L		105	70 - 125	2	20
1,3-Dichloropropane	<0.36		50.0	50.2		ug/L		100	62 - 136	3	20
1,4-Dichlorobenzene	<0.36		50.0	52.0		ug/L		104	70 - 120	2	20
2,2-Dichloropropane	<0.44		50.0	34.7		ug/L		69	58 - 129	3	20
2-Chlorotoluene	<0.31		50.0	50.4		ug/L		101	70 - 125	4	20
4-Chlorotoluene	<0.35		50.0	48.5		ug/L		97	68 - 124	2	20
Benzene	<0.15		50.0	47.1		ug/L		94	70 - 120	2	20
Bromobenzene	<0.36		50.0	53.4		ug/L		107	70 - 122	5	20
Bromochloromethane	<0.43		50.0	53.4		ug/L		107	65 - 122	3	20

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-127421-16 MSD
Matrix: Ground Water
Analysis Batch: 384264

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	<0.37		50.0	44.9		ug/L		90	69 - 120	2	20
Bromoform	<0.48		50.0	53.8		ug/L		108	56 - 132	5	20
Bromomethane	<0.80		50.0	55.6		ug/L		111	40 - 130	3	20
Carbon tetrachloride	<0.38		50.0	46.1		ug/L		92	65 - 122	2	20
Chlorobenzene	<0.39		50.0	52.4		ug/L		105	70 - 120	3	20
Chloroethane	<0.51		50.0	42.1		ug/L		84	45 - 127	0	20
Chloroform	<0.37		50.0	46.1		ug/L		92	70 - 120	3	20
Chloromethane	<0.32		50.0	43.5		ug/L		87	54 - 147	7	20
cis-1,2-Dichloroethene	17		50.0	66.9		ug/L		100	70 - 125	2	20
cis-1,3-Dichloropropene	<0.42		50.0	44.1		ug/L		88	64 - 127	4	20
Dibromochloromethane	<0.49		50.0	52.8		ug/L		106	68 - 125	3	20
Dibromomethane	<0.27		50.0	48.3		ug/L		97	70 - 120	4	20
Dichlorodifluoromethane	<0.67		50.0	31.1		ug/L		62	40 - 150	2	20
Ethylbenzene	<0.18		50.0	51.3		ug/L		103	70 - 120	2	20
Hexachlorobutadiene	<0.45		50.0	51.4		ug/L		103	51 - 150	3	20
Isopropylbenzene	<0.39		50.0	52.0		ug/L		104	70 - 126	3	20
Methyl tert-butyl ether	<0.39		50.0	38.1		ug/L		76	70 - 120	6	20
Methylene Chloride	<1.6		50.0	46.7		ug/L		93	69 - 125	2	20
Naphthalene	<0.34		50.0	37.0		ug/L		74	59 - 130	12	20
n-Butylbenzene	<0.39		50.0	46.4		ug/L		93	68 - 125	3	20
N-Propylbenzene	<0.41		50.0	49.8		ug/L		100	69 - 127	2	20
p-Isopropyltoluene	<0.36		50.0	51.6		ug/L		103	70 - 125	3	20
sec-Butylbenzene	<0.40		50.0	51.3		ug/L		103	70 - 123	2	20
Styrene	<0.39		50.0	51.1		ug/L		102	70 - 120	3	20
tert-Butylbenzene	<0.40		50.0	50.3		ug/L		101	70 - 121	2	20
Tetrachloroethene	<0.37		50.0	52.9		ug/L		104	70 - 128	2	20
Toluene	<0.15		50.0	49.0		ug/L		98	70 - 125	2	20
trans-1,2-Dichloroethene	<0.35		50.0	49.5		ug/L		99	70 - 125	2	20
trans-1,3-Dichloropropene	<0.36		50.0	42.8		ug/L		86	62 - 128	6	20
Trichloroethene	9.0		50.0	60.1		ug/L		102	70 - 125	0	20
Trichlorofluoromethane	<0.43		50.0	40.2		ug/L		80	70 - 126	2	20
Vinyl chloride	<0.20		50.0	45.0		ug/L		90	64 - 126	2	20
Xylenes, Total	<0.22		100	97.6		ug/L		98	70 - 125	3	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	88		75 - 126
4-Bromofluorobenzene (Surr)	93		72 - 124
Dibromofluoromethane	96		75 - 120
Toluene-d8 (Surr)	98		75 - 120

Lab Sample ID: MB 500-384417/6
Matrix: Water
Analysis Batch: 384417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/17 23:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/17 23:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/17 23:48	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-384417/6
Matrix: Water
Analysis Batch: 384417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/17 23:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/17 23:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/17 23:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/17 23:48	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/17 23:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/17 23:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/17 23:48	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/17 23:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/17 23:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/17 23:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/17 23:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/17 23:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/17 23:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/17 23:48	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/17 23:48	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/17 23:48	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/17 23:48	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/17 23:48	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/17 23:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/17 23:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/17 23:48	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/17 23:48	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/17 23:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/17 23:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/17 23:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/17 23:48	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/17 23:48	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/17 23:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/17 23:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/17 23:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/17 23:48	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/17 23:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/17 23:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/17 23:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 23:48	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/17 23:48	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-384417/6
Matrix: Water
Analysis Batch: 384417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/17 23:48	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/17 23:48	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/17 23:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/17 23:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/17 23:48	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/17 23:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/17 23:48	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			05/09/17 23:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/17 23:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126		05/09/17 23:48	1
4-Bromofluorobenzene (Surr)	96		72 - 124		05/09/17 23:48	1
Dibromofluoromethane	99		75 - 120		05/09/17 23:48	1
Toluene-d8 (Surr)	95		75 - 120		05/09/17 23:48	1

Lab Sample ID: LCS 500-384417/4
Matrix: Water
Analysis Batch: 384417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	54.4		ug/L		109	70 - 125
1,1,1-Trichloroethane	50.0	45.4		ug/L		91	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	53.1		ug/L		106	67 - 127
1,1,1,2-Trichloroethane	50.0	55.4		ug/L		111	70 - 122
1,1-Dichloroethane	50.0	48.3		ug/L		97	70 - 125
1,1-Dichloroethene	50.0	50.3		ug/L		101	67 - 122
1,1-Dichloropropene	50.0	47.1		ug/L		94	70 - 121
1,2,3-Trichlorobenzene	50.0	44.8		ug/L		90	55 - 140
1,2,3-Trichloropropane	50.0	45.6		ug/L		91	50 - 133
1,2,4-Trichlorobenzene	50.0	41.4		ug/L		83	66 - 127
1,2,4-Trimethylbenzene	50.0	52.5		ug/L		105	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	44.4		ug/L		89	56 - 123
1,2-Dibromoethane	50.0	52.9		ug/L		106	70 - 125
1,2-Dichlorobenzene	50.0	54.6		ug/L		109	70 - 125
1,2-Dichloroethane	50.0	47.9		ug/L		96	68 - 127
1,2-Dichloropropane	50.0	52.9		ug/L		106	67 - 130
1,3,5-Trimethylbenzene	50.0	52.2		ug/L		104	70 - 123
1,3-Dichlorobenzene	50.0	52.6		ug/L		105	70 - 125
1,3-Dichloropropane	50.0	53.2		ug/L		106	62 - 136
1,4-Dichlorobenzene	50.0	52.0		ug/L		104	70 - 120
2,2-Dichloropropane	50.0	35.2		ug/L		70	58 - 129
2-Chlorotoluene	50.0	50.1		ug/L		100	70 - 125
4-Chlorotoluene	50.0	49.0		ug/L		98	68 - 124
Benzene	50.0	48.8		ug/L		98	70 - 120
Bromobenzene	50.0	54.0		ug/L		108	70 - 122
Bromochloromethane	50.0	53.8		ug/L		108	65 - 122
Bromodichloromethane	50.0	46.9		ug/L		94	69 - 120

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-384417/4

Matrix: Water

Analysis Batch: 384417

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	50.0	56.8		ug/L		114	56 - 132
Bromomethane	50.0	56.1		ug/L		112	40 - 130
Carbon tetrachloride	50.0	46.7		ug/L		93	65 - 122
Chlorobenzene	50.0	53.5		ug/L		107	70 - 120
Chloroethane	50.0	40.9		ug/L		82	45 - 127
Chloroform	50.0	46.7		ug/L		93	70 - 120
Chloromethane	50.0	43.5		ug/L		87	54 - 147
cis-1,2-Dichloroethene	50.0	50.9		ug/L		102	70 - 125
cis-1,3-Dichloropropene	50.0	45.5		ug/L		91	64 - 127
Dibromochloromethane	50.0	55.7		ug/L		111	68 - 125
Dibromomethane	50.0	50.3		ug/L		101	70 - 120
Dichlorodifluoromethane	50.0	30.0		ug/L		60	40 - 150
Ethylbenzene	50.0	51.8		ug/L		104	70 - 120
Hexachlorobutadiene	50.0	53.3		ug/L		107	51 - 150
Isopropylbenzene	50.0	51.9		ug/L		104	70 - 126
Methyl tert-butyl ether	50.0	40.0		ug/L		80	70 - 120
Methylene Chloride	50.0	47.6		ug/L		95	69 - 125
Naphthalene	50.0	40.8		ug/L		82	59 - 130
n-Butylbenzene	50.0	45.8		ug/L		92	68 - 125
N-Propylbenzene	50.0	49.6		ug/L		99	69 - 127
p-Isopropyltoluene	50.0	52.0		ug/L		104	70 - 125
sec-Butylbenzene	50.0	51.7		ug/L		103	70 - 123
Styrene	50.0	52.4		ug/L		105	70 - 120
tert-Butylbenzene	50.0	50.7		ug/L		101	70 - 121
Tetrachloroethene	50.0	52.7		ug/L		105	70 - 128
Toluene	50.0	50.0		ug/L		100	70 - 125
trans-1,2-Dichloroethene	50.0	49.8		ug/L		100	70 - 125
trans-1,3-Dichloropropene	50.0	44.3		ug/L		89	62 - 128
Trichloroethene	50.0	53.2		ug/L		106	70 - 125
Trichlorofluoromethane	50.0	41.0		ug/L		82	70 - 126
Vinyl chloride	50.0	44.7		ug/L		89	64 - 126
Xylenes, Total	100	98.6		ug/L		99	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	89		75 - 126
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	96		75 - 120
Toluene-d8 (Surr)	98		75 - 120

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: EXW-6

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 00:13	TCT	TAL CHI

Client Sample ID: Muni #3

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 00:42	TCT	TAL CHI

Client Sample ID: MW-17

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 01:11	TCT	TAL CHI

Client Sample ID: MW-18

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 01:40	TCT	TAL CHI

Client Sample ID: MW-19

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 02:09	TCT	TAL CHI

Client Sample ID: MW-20

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 02:38	TCT	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: MW-21

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 03:08	TCT	TAL CHI

Client Sample ID: MW-21A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 03:37	TCT	TAL CHI

Client Sample ID: B-1

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 04:06	TCT	TAL CHI

Client Sample ID: B-1A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 04:35	TCT	TAL CHI

Client Sample ID: B-1B

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 05:04	TCT	TAL CHI

Client Sample ID: B-3

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-12

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 05:33	TCT	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-3A
Date Collected: 04/28/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-13
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 06:02	TCT	TAL CHI

Client Sample ID: B-10
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-14
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 06:31	TCT	TAL CHI

Client Sample ID: B-11
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-15
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 07:00	TCT	TAL CHI

Client Sample ID: B-12
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-16
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384264	05/09/17 07:29	TCT	TAL CHI

Client Sample ID: B-12 DUP
Date Collected: 04/27/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-17
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 03:13	TCT	TAL CHI

Client Sample ID: B-13
Date Collected: 04/28/17 00:00
Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-18
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 03:42	TCT	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Client Sample ID: B-13A

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-19

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 04:12	TCT	TAL CHI

Client Sample ID: B-13B

Date Collected: 04/28/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-20

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 04:41	TCT	TAL CHI

Client Sample ID: Discharge Pipe

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-21

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 05:10	TCT	TAL CHI

Client Sample ID: MW-18A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-22

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 05:39	TCT	TAL CHI

Client Sample ID: MW-19A

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-23

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 06:09	TCT	TAL CHI

Client Sample ID: Trip Blank

Date Collected: 04/27/17 00:00

Date Received: 05/02/17 09:50

Lab Sample ID: 500-127421-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	384417	05/10/17 06:38	TCT	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica Chicago

Accreditation/Certification Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-127421-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Lupton (optional)
 Contact: Dick Lupton
 Company: MSA Professional
 Address: 1230 South Blvd
Bona Vista, WI 53413
 Phone: 608-356-2771
 Fax: _____
 E-Mail: _____

Bill To: _____ (optional)
 Contact: _____
 Company: Same
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-127421
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: 3.9

Client		Client Project #		Preservative														Preservative Key		
<u>MSA Professional</u>		<u>60267019</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #		Parameter																
<u>Munszana Cleaners</u>				<u>VOL BALD</u>																
Project Location/State		Lab Project #																		
<u>Munszana, WI</u>																				
Sampler		Lab PM																		
<u>Dario Fitzsimmons</u>																				
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix													Comments	
			Date	Time																
1		<u>Exw-6</u>	<u>4/27</u>	<u>28/17</u>	<u>3</u>	<u>GW</u>	<u>X</u>													
2		<u>Muni #3</u>			<u>3</u>		<u>X</u>													
3		<u>MW-17</u>			<u>3</u>		<u>X</u>													
4		<u>MW-18</u>			<u>3</u>		<u>X</u>													
5		<u>MW-19</u>			<u>3</u>		<u>X</u>													
6		<u>MW-20</u>			<u>3</u>		<u>X</u>													
7		<u>MW-21</u>			<u>3</u>		<u>X</u>													
8		<u>MW-21A</u>			<u>3</u>		<u>X</u>													
9		<u>B-1</u>			<u>3</u>		<u>X</u>													
10		<u>B-1A</u>			<u>3</u>		<u>X</u>													

Turnaround Time Required (Business Days)
 ___ Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
 Requested Due Date: _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)


Relinquished By: <u>[Signature]</u> Company: <u>MSA</u> Date: <u>4/26/17</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>05/02/17</u> Time: <u>0950</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: _____
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments: _____

Lab Comments: _____



500-127421 COC

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Hester (optional)
Contact: MSA Professional
Company: MSA Professional
Address: 1230 South Blvd
Address: Kenosha WI 53143
Phone: 608-391-2771
Fax:
E-Mail:

Bill To: (optional)
Contact:
Company:
Address:
Address: Same
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-127421
Chain of Custody Number: _____
Page 2 of 3
Temperature °C of Cooler: 3.9

Client		Client Project #		Preservative		Parameter		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key		
<u>MSA Professional</u>		<u>8267219</u>						<u>Monroe, WI</u>				<u>DAVID K. ZIMMERMAN</u>				1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix											Comments	
			Date	Time														
11		B-1B	4/27	2:48/17	3	6	X	VDC 8267										
12		B-3			3		X											
13		B-3A			3		X											
14		B-10			3		X											
15		B-11			3		X											
16		B-12			3		X											
17		B-12 Dup			3		X											
18		B-13			3		X											
19		B-13A			3		X											
20		B-13B			3		X											

Turnaround Time Required (Business Days)

1 Day 2 Days 3 Days 7 Days 10 Days 15 Days Other

Requested Due Date

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u>	Company: <u>MSA</u>	Date: <u>4/27/17</u>	Time: _____	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>05/02/17</u>	Time: <u>0950</u>
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Luster (optional) Bill To: _____ (optional)
 Contact: MSA Professional Contact: _____
 Company: MSA Professional Company: _____
 Address: 173D South Blvd Address: Samuel
 Address: Berona WI 53913 Address: _____
 Phone: 608 356 2771 Phone: _____
 Fax: _____ Fax: _____
 E-Mail: _____ PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500 127421
 Chain of Custody Number: _____
 Page 3 of 3
 Temperature °C of Cooler: 3.9

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
MSA Professional		267219								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Lab PM					
Mindzqua Cleaners		Mindzqua WI 53913				DAVID Pitt Simmons					
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	L	X		
			Date	Time							
21		Discharge Pipe	4/27-28/		3	GM	X				
22		mm-18A	17		3	L	X				
23		mm-19A	L		3	L	X				
24		Tap Blank	L		2	L	X				

Turnaround Time Required (Business Days): 1 Day 2 Days 3 Days 7 Days 10 Days 15 Days Other
 Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>David Simmons</u> Company: _____ Date: <u>4/28/17</u> Time: _____	Received By: <u>Samuel</u> Company: <u>TA</u> Date: <u>05/02/17</u> Time: <u>0950</u>	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: MSA Professional Services, Inc

Job Number: 500-127421-1

Login Number: 127421

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-136597-1
Client Project/Site: Minocqua Cleaners - 8267019

For:
MSA Professional Services, Inc
1230 South Blvd
Baraboo, Wisconsin 53913

Attn: Mr. Richard Lyster



Authorized for release by:
11/15/2017 12:53:08 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



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www.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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Case Narrative

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Job ID: 500-136597-1

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-136597-1**

Comments

No additional comments.

Receipt

The samples were received on 11/1/2017 9:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

GC/MS VOA

Method(s) 8260B: The following sample detected Methylene Chloride above the reporting limit: MW-19 (500-136597-6), B-13A (500-136597-18) and B-13B (500-136597-19). The method blank 409626 associated with the this sample did not detect Methylene Chloride. Since Methylene Chloride is a known lab contaminant and the results are just above the reporting limit; the results have been flagged with a "cn" flag to denote the probable lab contamination.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: EX-4

Lab Sample ID: 500-136597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.9		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: EXW-6

Lab Sample ID: 500-136597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	18		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	6.0		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	10		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	1.2		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: Muni #3

Lab Sample ID: 500-136597-3

No Detections.

Client Sample ID: MW-17

Lab Sample ID: 500-136597-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	46		1.0	0.41	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.91	J	1.0	0.35	ug/L	1		8260B	Total/NA
Trichloroethene	1.7		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	22		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 500-136597-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.0		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	0.48	J	0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 500-136597-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	11	cn	5.0	1.6	ug/L	1		8260B	Total/NA
Tetrachloroethene	3.6		1.0	0.37	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	4.5		1.0	0.35	ug/L	1		8260B	Total/NA
Trichloroethene	72		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	53		0.50	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene - DL	490		10	4.1	ug/L	10		8260B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 500-136597-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.83	J	1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.4		1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-21A

Lab Sample ID: 500-136597-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	51		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.0		1.0	0.37	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.83	J	1.0	0.35	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-21A (Continued)

Lab Sample ID: 500-136597-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.4		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	4.7		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: B-1

Lab Sample ID: 500-136597-9

No Detections.

Client Sample ID: B-1A

Lab Sample ID: 500-136597-10

No Detections.

Client Sample ID: B-1B

Lab Sample ID: 500-136597-11

No Detections.

Client Sample ID: B-3

Lab Sample ID: 500-136597-12

No Detections.

Client Sample ID: B-3A

Lab Sample ID: 500-136597-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.64	J	1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: B-10

Lab Sample ID: 500-136597-14

No Detections.

Client Sample ID: B-11

Lab Sample ID: 500-136597-15

No Detections.

Client Sample ID: B-12

Lab Sample ID: 500-136597-16

No Detections.

Client Sample ID: B-13

Lab Sample ID: 500-136597-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.6	J	2.0	0.37	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	84		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	64		1.0	0.37	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.68	J	1.0	0.35	ug/L	1		8260B	Total/NA
Trichloroethene	43		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	1.1		0.50	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: B-13A

Lab Sample ID: 500-136597-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	9.8	cn	5.0	1.6	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.81	J	1.0	0.37	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13B

Lab Sample ID: 500-136597-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	11	cn	5.0	1.6	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.56	J	1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: B-10 Dup

Lab Sample ID: 500-136597-20

No Detections.

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-136597-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	1.1		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18A

Lab Sample ID: 500-136597-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.2		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	1.0		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19A

Lab Sample ID: 500-136597-23

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 500-136597-24

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136597-1	EX-4	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-2	EXW-6	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-3	Muni #3	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-4	MW-17	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-5	MW-18	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-6	MW-19	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-7	MW-21	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-8	MW-21A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-9	B-1	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-10	B-1A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-11	B-1B	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-12	B-3	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-13	B-3A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-14	B-10	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-15	B-11	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-16	B-12	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-17	B-13	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-18	B-13A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-19	B-13B	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-20	B-10 Dup	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-21	Discharge Pipe	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-22	MW-18A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-23	MW-19A	Ground Water	10/31/17 00:00	11/01/17 09:05
500-136597-24	Trip Blank	Water	10/31/17 00:00	11/01/17 09:05

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: EX-4
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-1
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 09:21	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 09:21	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 09:21	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 09:21	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 09:21	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 09:21	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 09:21	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 09:21	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 09:21	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 09:21	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 09:21	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 09:21	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 09:21	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:21	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 09:21	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 09:21	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 09:21	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 09:21	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 09:21	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 09:21	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 09:21	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 09:21	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 09:21	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 09:21	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 09:21	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 09:21	1
cis-1,2-Dichloroethene	1.9		1.0	0.41	ug/L			11/12/17 09:21	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 09:21	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 09:21	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 09:21	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 09:21	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 09:21	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 09:21	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 09:21	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 09:21	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 09:21	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 09:21	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: EX-4

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-1

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:21	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 09:21	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:21	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 09:21	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 09:21	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 09:21	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 09:21	1
Trichloroethene	1.4		0.50	0.16	ug/L			11/12/17 09:21	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 09:21	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 09:21	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 09:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 126					11/12/17 09:21	1
4-Bromofluorobenzene (Surr)	86		72 - 124					11/12/17 09:21	1
Dibromofluoromethane	87		75 - 120					11/12/17 09:21	1
Toluene-d8 (Surr)	104		75 - 120					11/12/17 09:21	1

Client Sample ID: EXW-6

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 09:49	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 09:49	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 09:49	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 09:49	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 09:49	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 09:49	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 09:49	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 09:49	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 09:49	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 09:49	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 09:49	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 09:49	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 09:49	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:49	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 09:49	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 09:49	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 09:49	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 09:49	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 09:49	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: EXW-6

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 09:49	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 09:49	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 09:49	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 09:49	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 09:49	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 09:49	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 09:49	1
cis-1,2-Dichloroethene	18		1.0	0.41	ug/L			11/12/17 09:49	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 09:49	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 09:49	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 09:49	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 09:49	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 09:49	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 09:49	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 09:49	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 09:49	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 09:49	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 09:49	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:49	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 09:49	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 09:49	1
Tetrachloroethene	6.0		1.0	0.37	ug/L			11/12/17 09:49	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 09:49	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 09:49	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 09:49	1
Trichloroethene	10		0.50	0.16	ug/L			11/12/17 09:49	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 09:49	1
Vinyl chloride	1.2		0.50	0.20	ug/L			11/12/17 09:49	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		11/12/17 09:49	1
4-Bromofluorobenzene (Surr)	85		72 - 124		11/12/17 09:49	1
Dibromofluoromethane	88		75 - 120		11/12/17 09:49	1
Toluene-d8 (Surr)	104		75 - 120		11/12/17 09:49	1

Client Sample ID: Muni #3

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 10:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 10:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 10:17	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: Muni #3

Lab Sample ID: 500-136597-3

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 10:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 10:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 10:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 10:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 10:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 10:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 10:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 10:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 10:17	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 10:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 10:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 10:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 10:17	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 10:17	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 10:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 10:17	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 10:17	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 10:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 10:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 10:17	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 10:17	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 10:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 10:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 10:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 10:17	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 10:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 10:17	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 10:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 10:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 10:17	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 10:17	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 10:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 10:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:17	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 10:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:17	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: Muni #3

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 10:17	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 10:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 10:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 10:17	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 10:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 10:17	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 10:17	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 10:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126					11/12/17 10:17	1
4-Bromofluorobenzene (Surr)	85		72 - 124					11/12/17 10:17	1
Dibromofluoromethane	88		75 - 120					11/12/17 10:17	1
Toluene-d8 (Surr)	104		75 - 120					11/12/17 10:17	1

Client Sample ID: MW-17

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-4

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 10:44	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 10:44	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 10:44	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 10:44	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 10:44	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 10:44	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 10:44	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 10:44	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 10:44	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 10:44	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 10:44	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 10:44	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 10:44	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:44	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 10:44	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 10:44	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 10:44	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 10:44	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 10:44	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 10:44	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 10:44	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 10:44	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-17

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-4

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 10:44	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 10:44	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 10:44	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 10:44	1
cis-1,2-Dichloroethene	46		1.0	0.41	ug/L			11/12/17 10:44	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 10:44	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 10:44	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 10:44	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 10:44	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 10:44	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 10:44	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 10:44	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 10:44	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 10:44	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 10:44	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:44	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 10:44	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 10:44	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 10:44	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 10:44	1
trans-1,2-Dichloroethene	0.91	J	1.0	0.35	ug/L			11/12/17 10:44	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 10:44	1
Trichloroethene	1.7		0.50	0.16	ug/L			11/12/17 10:44	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 10:44	1
Vinyl chloride	22		0.50	0.20	ug/L			11/12/17 10:44	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 10:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/12/17 10:44	1
4-Bromofluorobenzene (Surr)	86		72 - 124		11/12/17 10:44	1
Dibromofluoromethane	89		75 - 120		11/12/17 10:44	1
Toluene-d8 (Surr)	105		75 - 120		11/12/17 10:44	1

Client Sample ID: MW-18

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 11:11	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 11:11	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 11:11	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 11:11	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 11:11	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-18

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 11:11	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 11:11	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 11:11	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 11:11	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 11:11	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 11:11	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 11:11	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 11:11	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:11	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 11:11	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 11:11	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 11:11	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 11:11	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 11:11	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 11:11	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 11:11	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 11:11	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 11:11	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 11:11	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 11:11	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 11:11	1
cis-1,2-Dichloroethene	1.0		1.0	0.41	ug/L			11/12/17 11:11	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 11:11	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 11:11	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 11:11	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 11:11	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 11:11	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 11:11	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 11:11	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 11:11	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 11:11	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 11:11	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:11	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 11:11	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:11	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 11:11	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 11:11	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 11:11	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-18

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 11:11	1
Trichloroethene	0.48	J	0.50	0.16	ug/L			11/12/17 11:11	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 11:11	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 11:11	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/12/17 11:11	1
4-Bromofluorobenzene (Surr)	88		72 - 124		11/12/17 11:11	1
Dibromofluoromethane	88		75 - 120		11/12/17 11:11	1
Toluene-d8 (Surr)	103		75 - 120		11/12/17 11:11	1

Client Sample ID: MW-19

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-6

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 10:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 10:57	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 10:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 10:57	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 10:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 10:57	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 10:57	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 10:57	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 10:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 10:57	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 10:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 10:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 10:57	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:57	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 10:57	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 10:57	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 10:57	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 10:57	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 10:57	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 10:57	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 10:57	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 10:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 10:57	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 10:57	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-19

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-6

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 10:57	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 10:57	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 10:57	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 10:57	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 10:57	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 10:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 10:57	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 10:57	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 10:57	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
Methylene Chloride	11	cn	5.0	1.6	ug/L			11/13/17 10:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 10:57	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 10:57	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:57	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 10:57	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:57	1
Tetrachloroethene	3.6		1.0	0.37	ug/L			11/13/17 10:57	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 10:57	1
trans-1,2-Dichloroethene	4.5		1.0	0.35	ug/L			11/13/17 10:57	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 10:57	1
Trichloroethene	72		0.50	0.16	ug/L			11/13/17 10:57	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 10:57	1
Vinyl chloride	53		0.50	0.20	ug/L			11/13/17 10:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 10:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		75 - 126		11/13/17 10:57	1
4-Bromofluorobenzene (Surr)	91		72 - 124		11/13/17 10:57	1
Dibromofluoromethane	90		75 - 120		11/13/17 10:57	1
Toluene-d8 (Surr)	94		75 - 120		11/13/17 10:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	490		10	4.1	ug/L			11/13/17 11:24	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		75 - 126		11/13/17 11:24	10
4-Bromofluorobenzene (Surr)	91		72 - 124		11/13/17 11:24	10
Dibromofluoromethane	90		75 - 120		11/13/17 11:24	10
Toluene-d8 (Surr)	94		75 - 120		11/13/17 11:24	10

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-21

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 11:38	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 11:38	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 11:38	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 11:38	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 11:38	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 11:38	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 11:38	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 11:38	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 11:38	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 11:38	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 11:38	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 11:38	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 11:38	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:38	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 11:38	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 11:38	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 11:38	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 11:38	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 11:38	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 11:38	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 11:38	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 11:38	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 11:38	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 11:38	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 11:38	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 11:38	1
cis-1,2-Dichloroethene	0.83	J	1.0	0.41	ug/L			11/12/17 11:38	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 11:38	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 11:38	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 11:38	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 11:38	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 11:38	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 11:38	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 11:38	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 11:38	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 11:38	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 11:38	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-21

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:38	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 11:38	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 11:38	1
Tetrachloroethene	4.4		1.0	0.37	ug/L			11/12/17 11:38	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 11:38	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 11:38	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 11:38	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 11:38	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 11:38	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 11:38	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 11:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126					11/12/17 11:38	1
4-Bromofluorobenzene (Surr)	85		72 - 124					11/12/17 11:38	1
Dibromofluoromethane	89		75 - 120					11/12/17 11:38	1
Toluene-d8 (Surr)	103		75 - 120					11/12/17 11:38	1

Client Sample ID: MW-21A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-8

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 12:05	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 12:05	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 12:05	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 12:05	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 12:05	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 12:05	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 12:05	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 12:05	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 12:05	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 12:05	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 12:05	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 12:05	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 12:05	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:05	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 12:05	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 12:05	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 12:05	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 12:05	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 12:05	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-21A

Lab Sample ID: 500-136597-8

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 12:05	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 12:05	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 12:05	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 12:05	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 12:05	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 12:05	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 12:05	1
cis-1,2-Dichloroethene	51		1.0	0.41	ug/L			11/12/17 12:05	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 12:05	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 12:05	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 12:05	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 12:05	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 12:05	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 12:05	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 12:05	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 12:05	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 12:05	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 12:05	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:05	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 12:05	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:05	1
Tetrachloroethene	2.0		1.0	0.37	ug/L			11/12/17 12:05	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 12:05	1
trans-1,2-Dichloroethene	0.83 J		1.0	0.35	ug/L			11/12/17 12:05	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 12:05	1
Trichloroethene	4.4		0.50	0.16	ug/L			11/12/17 12:05	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 12:05	1
Vinyl chloride	4.7		0.50	0.20	ug/L			11/12/17 12:05	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 12:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/12/17 12:05	1
4-Bromofluorobenzene (Surr)	84		72 - 124		11/12/17 12:05	1
Dibromofluoromethane	89		75 - 120		11/12/17 12:05	1
Toluene-d8 (Surr)	104		75 - 120		11/12/17 12:05	1

Client Sample ID: B-1

Lab Sample ID: 500-136597-9

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 12:34	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 12:34	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 12:34	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-1

Lab Sample ID: 500-136597-9

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 12:34	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 12:34	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 12:34	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 12:34	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 12:34	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 12:34	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 12:34	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 12:34	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 12:34	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 12:34	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:34	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 12:34	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 12:34	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 12:34	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 12:34	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 12:34	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 12:34	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 12:34	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 12:34	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 12:34	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 12:34	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 12:34	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 12:34	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 12:34	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 12:34	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 12:34	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 12:34	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 12:34	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 12:34	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 12:34	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 12:34	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 12:34	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 12:34	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 12:34	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:34	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 12:34	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 12:34	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-1

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-9

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 12:34	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 12:34	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 12:34	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 12:34	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 12:34	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 12:34	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 12:34	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 12:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126					11/12/17 12:34	1
4-Bromofluorobenzene (Surr)	87		72 - 124					11/12/17 12:34	1
Dibromofluoromethane	90		75 - 120					11/12/17 12:34	1
Toluene-d8 (Surr)	105		75 - 120					11/12/17 12:34	1

Client Sample ID: B-1A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-10

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 13:01	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 13:01	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 13:01	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 13:01	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 13:01	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 13:01	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 13:01	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 13:01	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 13:01	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 13:01	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 13:01	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 13:01	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 13:01	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:01	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 13:01	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 13:01	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 13:01	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 13:01	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:01	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 13:01	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 13:01	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 13:01	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-1A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-10
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 13:01	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 13:01	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 13:01	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 13:01	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 13:01	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 13:01	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 13:01	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 13:01	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 13:01	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 13:01	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 13:01	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 13:01	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 13:01	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 13:01	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 13:01	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:01	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 13:01	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:01	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 13:01	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 13:01	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 13:01	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 13:01	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 13:01	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:01	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 13:01	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/12/17 13:01	1
4-Bromofluorobenzene (Surr)	87		72 - 124		11/12/17 13:01	1
Dibromofluoromethane	90		75 - 120		11/12/17 13:01	1
Toluene-d8 (Surr)	103		75 - 120		11/12/17 13:01	1

Client Sample ID: B-1B
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-11
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 13:28	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 13:28	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 13:28	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 13:28	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 13:28	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-1B

Lab Sample ID: 500-136597-11

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 13:28	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 13:28	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 13:28	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 13:28	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 13:28	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 13:28	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 13:28	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 13:28	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:28	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 13:28	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 13:28	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 13:28	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 13:28	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:28	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 13:28	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 13:28	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 13:28	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 13:28	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 13:28	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 13:28	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 13:28	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 13:28	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 13:28	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 13:28	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 13:28	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 13:28	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 13:28	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 13:28	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 13:28	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 13:28	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 13:28	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 13:28	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:28	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 13:28	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:28	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 13:28	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 13:28	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 13:28	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-1B

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-11

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 13:28	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 13:28	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:28	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 13:28	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/12/17 13:28	1
4-Bromofluorobenzene (Surr)	85		72 - 124		11/12/17 13:28	1
Dibromofluoromethane	90		75 - 120		11/12/17 13:28	1
Toluene-d8 (Surr)	102		75 - 120		11/12/17 13:28	1

Client Sample ID: B-3

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-12

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 13:55	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 13:55	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 13:55	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 13:55	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 13:55	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 13:55	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 13:55	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 13:55	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 13:55	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 13:55	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 13:55	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 13:55	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 13:55	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:55	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 13:55	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 13:55	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 13:55	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 13:55	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:55	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 13:55	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 13:55	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 13:55	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 13:55	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 13:55	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-3

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-12

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 13:55	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 13:55	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 13:55	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 13:55	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 13:55	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 13:55	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 13:55	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 13:55	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 13:55	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 13:55	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 13:55	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 13:55	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 13:55	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:55	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 13:55	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 13:55	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 13:55	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 13:55	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 13:55	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 13:55	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 13:55	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 13:55	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 13:55	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/12/17 13:55	1
4-Bromofluorobenzene (Surr)	85		72 - 124		11/12/17 13:55	1
Dibromofluoromethane	90		75 - 120		11/12/17 13:55	1
Toluene-d8 (Surr)	102		75 - 120		11/12/17 13:55	1

Client Sample ID: B-3A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-13

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 14:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 14:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 14:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 14:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 14:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 14:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 14:23	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 14:23	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-3A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-13
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 14:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 14:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 14:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 14:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 14:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 14:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 14:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 14:23	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 14:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 14:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 14:23	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 14:23	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 14:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 14:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 14:23	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 14:23	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 14:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 14:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 14:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 14:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 14:23	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 14:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 14:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 14:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 14:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 14:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 14:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 14:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:23	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 14:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:23	1
Tetrachloroethene	0.64	J	1.0	0.37	ug/L			11/12/17 14:23	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 14:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 14:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 14:23	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 14:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 14:23	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-3A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-13
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 14:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126					11/12/17 14:23	1
4-Bromofluorobenzene (Surr)	88		72 - 124					11/12/17 14:23	1
Dibromofluoromethane	89		75 - 120					11/12/17 14:23	1
Toluene-d8 (Surr)	104		75 - 120					11/12/17 14:23	1

Client Sample ID: B-10
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-14
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 14:50	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 14:50	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 14:50	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 14:50	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 14:50	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 14:50	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 14:50	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 14:50	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 14:50	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 14:50	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 14:50	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 14:50	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 14:50	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:50	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 14:50	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 14:50	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 14:50	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 14:50	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 14:50	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 14:50	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 14:50	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 14:50	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 14:50	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 14:50	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 14:50	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 14:50	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 14:50	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-10

Lab Sample ID: 500-136597-14

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 14:50	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 14:50	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 14:50	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 14:50	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 14:50	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 14:50	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 14:50	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 14:50	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 14:50	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 14:50	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:50	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 14:50	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 14:50	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 14:50	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 14:50	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 14:50	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 14:50	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 14:50	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 14:50	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 14:50	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/12/17 14:50	1
4-Bromofluorobenzene (Surr)	86		72 - 124		11/12/17 14:50	1
Dibromofluoromethane	89		75 - 120		11/12/17 14:50	1
Toluene-d8 (Surr)	104		75 - 120		11/12/17 14:50	1

Client Sample ID: B-11

Lab Sample ID: 500-136597-15

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 15:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 15:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 15:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 15:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 15:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 15:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 15:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 15:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 15:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 15:17	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-11

Lab Sample ID: 500-136597-15

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 15:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 15:17	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 15:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 15:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 15:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 15:17	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 15:17	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 15:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 15:17	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 15:17	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 15:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 15:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 15:17	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 15:17	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 15:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 15:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 15:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 15:17	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 15:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 15:17	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 15:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 15:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 15:17	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 15:17	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 15:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 15:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:17	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 15:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 15:17	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 15:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 15:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 15:17	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 15:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 15:17	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 15:17	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 15:17	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-11

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-15

Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/12/17 15:17	1
4-Bromofluorobenzene (Surr)	88		72 - 124		11/12/17 15:17	1
Dibromofluoromethane	88		75 - 120		11/12/17 15:17	1
Toluene-d8 (Surr)	103		75 - 120		11/12/17 15:17	1

Client Sample ID: B-12

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-16

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 15:43	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 15:43	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 15:43	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 15:43	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 15:43	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 15:43	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 15:43	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 15:43	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 15:43	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 15:43	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 15:43	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 15:43	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 15:43	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:43	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 15:43	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 15:43	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 15:43	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 15:43	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 15:43	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 15:43	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 15:43	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 15:43	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 15:43	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 15:43	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 15:43	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 15:43	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 15:43	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 15:43	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 15:43	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 15:43	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 15:43	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-12

Lab Sample ID: 500-136597-16

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 15:43	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 15:43	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 15:43	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 15:43	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 15:43	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 15:43	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:43	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 15:43	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 15:43	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 15:43	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 15:43	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 15:43	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 15:43	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 15:43	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 15:43	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 15:43	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/12/17 15:43	1
4-Bromofluorobenzene (Surr)	87		72 - 124		11/12/17 15:43	1
Dibromofluoromethane	90		75 - 120		11/12/17 15:43	1
Toluene-d8 (Surr)	103		75 - 120		11/12/17 15:43	1

Client Sample ID: B-13

Lab Sample ID: 500-136597-17

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 16:10	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 16:10	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 16:10	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 16:10	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 16:10	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 16:10	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 16:10	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 16:10	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 16:10	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 16:10	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 16:10	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 16:10	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13

Lab Sample ID: 500-136597-17

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 16:10	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 16:10	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 16:10	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 16:10	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 16:10	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 16:10	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 16:10	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 16:10	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 16:10	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 16:10	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 16:10	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 16:10	1
Chloroform	1.6	J	2.0	0.37	ug/L			11/12/17 16:10	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 16:10	1
cis-1,2-Dichloroethene	84		1.0	0.41	ug/L			11/12/17 16:10	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/12/17 16:10	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 16:10	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 16:10	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 16:10	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 16:10	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 16:10	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 16:10	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 16:10	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 16:10	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 16:10	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 16:10	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 16:10	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 16:10	1
Tetrachloroethene	64		1.0	0.37	ug/L			11/12/17 16:10	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 16:10	1
trans-1,2-Dichloroethene	0.68	J	1.0	0.35	ug/L			11/12/17 16:10	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 16:10	1
Trichloroethene	43		0.50	0.16	ug/L			11/12/17 16:10	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 16:10	1
Vinyl chloride	1.1		0.50	0.20	ug/L			11/12/17 16:10	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/12/17 16:10	1
4-Bromofluorobenzene (Surr)	86		72 - 124		11/12/17 16:10	1
Dibromofluoromethane	89		75 - 120		11/12/17 16:10	1
Toluene-d8 (Surr)	103		75 - 120		11/12/17 16:10	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-18
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 11:50	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 11:50	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 11:50	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 11:50	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 11:50	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 11:50	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 11:50	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 11:50	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 11:50	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 11:50	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 11:50	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 11:50	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 11:50	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 11:50	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 11:50	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 11:50	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 11:50	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 11:50	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 11:50	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 11:50	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 11:50	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 11:50	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 11:50	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 11:50	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 11:50	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 11:50	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 11:50	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 11:50	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 11:50	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 11:50	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 11:50	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 11:50	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 11:50	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 11:50	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
Methylene Chloride	9.8	cn	5.0	1.6	ug/L			11/13/17 11:50	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 11:50	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 11:50	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-18

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 11:50	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 11:50	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 11:50	1
Tetrachloroethene	0.81	J	1.0	0.37	ug/L			11/13/17 11:50	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 11:50	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 11:50	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 11:50	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 11:50	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 11:50	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 11:50	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 11:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		75 - 126					11/13/17 11:50	1
4-Bromofluorobenzene (Surr)	92		72 - 124					11/13/17 11:50	1
Dibromofluoromethane	90		75 - 120					11/13/17 11:50	1
Toluene-d8 (Surr)	93		75 - 120					11/13/17 11:50	1

Client Sample ID: B-13B

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-19

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 12:16	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 12:16	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 12:16	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 12:16	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 12:16	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 12:16	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 12:16	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 12:16	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 12:16	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 12:16	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 12:16	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 12:16	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 12:16	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:16	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 12:16	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 12:16	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 12:16	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 12:16	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 12:16	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13B

Lab Sample ID: 500-136597-19

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 12:16	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 12:16	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 12:16	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 12:16	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 12:16	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 12:16	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 12:16	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 12:16	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 12:16	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 12:16	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 12:16	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 12:16	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 12:16	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 12:16	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 12:16	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
Methylene Chloride	11	cn	5.0	1.6	ug/L			11/13/17 12:16	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 12:16	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 12:16	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:16	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 12:16	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:16	1
Tetrachloroethene	0.56	J	1.0	0.37	ug/L			11/13/17 12:16	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 12:16	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 12:16	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 12:16	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 12:16	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 12:16	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 12:16	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/13/17 12:16	1
4-Bromofluorobenzene (Surr)	91		72 - 124		11/13/17 12:16	1
Dibromofluoromethane	92		75 - 120		11/13/17 12:16	1
Toluene-d8 (Surr)	92		75 - 120		11/13/17 12:16	1

Client Sample ID: B-10 Dup

Lab Sample ID: 500-136597-20

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 12:45	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 12:45	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 12:45	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-10 Dup

Lab Sample ID: 500-136597-20

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 12:45	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 12:45	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 12:45	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 12:45	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 12:45	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 12:45	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 12:45	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 12:45	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 12:45	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 12:45	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:45	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 12:45	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 12:45	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 12:45	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 12:45	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 12:45	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 12:45	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 12:45	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 12:45	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 12:45	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 12:45	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 12:45	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 12:45	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 12:45	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 12:45	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 12:45	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 12:45	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 12:45	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 12:45	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 12:45	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 12:45	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 12:45	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 12:45	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 12:45	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:45	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 12:45	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 12:45	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-10 Dup

Lab Sample ID: 500-136597-20

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/13/17 12:45	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 12:45	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 12:45	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 12:45	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 12:45	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 12:45	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 12:45	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 12:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126					11/13/17 12:45	1
4-Bromofluorobenzene (Surr)	92		72 - 124					11/13/17 12:45	1
Dibromofluoromethane	90		75 - 120					11/13/17 12:45	1
Toluene-d8 (Surr)	94		75 - 120					11/13/17 12:45	1

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-136597-21

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 13:12	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 13:12	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 13:12	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 13:12	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 13:12	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 13:12	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 13:12	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 13:12	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 13:12	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 13:12	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 13:12	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 13:12	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 13:12	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:12	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 13:12	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 13:12	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 13:12	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 13:12	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 13:12	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 13:12	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 13:12	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 13:12	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-136597-21

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 13:12	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 13:12	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 13:12	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 13:12	1
cis-1,2-Dichloroethene	1.8		1.0	0.41	ug/L			11/13/17 13:12	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 13:12	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 13:12	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 13:12	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 13:12	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 13:12	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 13:12	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 13:12	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 13:12	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 13:12	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 13:12	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:12	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 13:12	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:12	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/13/17 13:12	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 13:12	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 13:12	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 13:12	1
Trichloroethene	1.1		0.50	0.16	ug/L			11/13/17 13:12	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 13:12	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 13:12	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/13/17 13:12	1
4-Bromofluorobenzene (Surr)	93		72 - 124		11/13/17 13:12	1
Dibromofluoromethane	92		75 - 120		11/13/17 13:12	1
Toluene-d8 (Surr)	93		75 - 120		11/13/17 13:12	1

Client Sample ID: MW-18A

Lab Sample ID: 500-136597-22

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 13:39	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 13:39	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 13:39	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 13:39	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 13:39	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-18A

Lab Sample ID: 500-136597-22

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 13:39	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 13:39	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 13:39	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 13:39	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 13:39	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 13:39	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 13:39	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 13:39	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:39	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 13:39	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 13:39	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 13:39	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 13:39	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 13:39	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 13:39	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 13:39	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 13:39	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 13:39	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 13:39	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 13:39	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 13:39	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 13:39	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 13:39	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 13:39	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 13:39	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 13:39	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 13:39	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 13:39	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 13:39	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 13:39	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 13:39	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 13:39	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:39	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 13:39	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 13:39	1
Tetrachloroethene	1.2		1.0	0.37	ug/L			11/13/17 13:39	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 13:39	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 13:39	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-18A

Lab Sample ID: 500-136597-22

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 13:39	1
Trichloroethene	1.0		0.50	0.16	ug/L			11/13/17 13:39	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 13:39	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 13:39	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/13/17 13:39	1
4-Bromofluorobenzene (Surr)	91		72 - 124		11/13/17 13:39	1
Dibromofluoromethane	92		75 - 120		11/13/17 13:39	1
Toluene-d8 (Surr)	93		75 - 120		11/13/17 13:39	1

Client Sample ID: MW-19A

Lab Sample ID: 500-136597-23

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 14:06	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 14:06	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 14:06	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 14:06	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 14:06	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 14:06	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 14:06	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 14:06	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 14:06	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 14:06	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 14:06	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 14:06	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 14:06	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:06	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 14:06	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 14:06	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 14:06	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 14:06	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 14:06	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 14:06	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 14:06	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 14:06	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 14:06	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 14:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-19A

Lab Sample ID: 500-136597-23

Date Collected: 10/31/17 00:00

Matrix: Ground Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 14:06	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 14:06	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 14:06	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 14:06	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 14:06	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 14:06	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 14:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 14:06	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 14:06	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 14:06	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 14:06	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 14:06	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 14:06	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:06	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 14:06	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:06	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/13/17 14:06	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 14:06	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 14:06	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 14:06	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 14:06	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 14:06	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 14:06	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/13/17 14:06	1
4-Bromofluorobenzene (Surr)	93		72 - 124		11/13/17 14:06	1
Dibromofluoromethane	91		75 - 120		11/13/17 14:06	1
Toluene-d8 (Surr)	93		75 - 120		11/13/17 14:06	1

Client Sample ID: Trip Blank

Lab Sample ID: 500-136597-24

Date Collected: 10/31/17 00:00

Matrix: Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 14:33	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 14:33	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 14:33	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 14:33	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 14:33	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 14:33	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 14:33	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 14:33	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-136597-24

Date Collected: 10/31/17 00:00

Matrix: Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 14:33	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 14:33	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 14:33	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 14:33	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 14:33	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:33	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 14:33	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 14:33	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 14:33	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 14:33	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 14:33	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 14:33	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 14:33	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 14:33	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 14:33	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 14:33	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 14:33	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 14:33	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 14:33	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 14:33	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 14:33	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 14:33	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 14:33	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 14:33	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 14:33	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 14:33	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 14:33	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 14:33	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 14:33	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:33	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 14:33	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 14:33	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/13/17 14:33	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 14:33	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 14:33	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 14:33	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 14:33	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 14:33	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-136597-24

Date Collected: 10/31/17 00:00

Matrix: Water

Date Received: 11/01/17 09:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 14:33	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 14:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 126					11/13/17 14:33	1
4-Bromofluorobenzene (Surr)	91		72 - 124					11/13/17 14:33	1
Dibromofluoromethane	93		75 - 120					11/13/17 14:33	1
Toluene-d8 (Surr)	92		75 - 120					11/13/17 14:33	1



Definitions/Glossary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

QC Association Summary

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

GC/MS VOA

Analysis Batch: 409551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136597-1	EX-4	Total/NA	Ground Water	8260B	
500-136597-2	EXW-6	Total/NA	Ground Water	8260B	
500-136597-3	Muni #3	Total/NA	Ground Water	8260B	
500-136597-4	MW-17	Total/NA	Ground Water	8260B	
500-136597-5	MW-18	Total/NA	Ground Water	8260B	
500-136597-7	MW-21	Total/NA	Ground Water	8260B	
500-136597-8	MW-21A	Total/NA	Ground Water	8260B	
500-136597-9	B-1	Total/NA	Ground Water	8260B	
500-136597-10	B-1A	Total/NA	Ground Water	8260B	
500-136597-11	B-1B	Total/NA	Ground Water	8260B	
500-136597-12	B-3	Total/NA	Ground Water	8260B	
500-136597-13	B-3A	Total/NA	Ground Water	8260B	
500-136597-14	B-10	Total/NA	Ground Water	8260B	
500-136597-15	B-11	Total/NA	Ground Water	8260B	
500-136597-16	B-12	Total/NA	Ground Water	8260B	
500-136597-17	B-13	Total/NA	Ground Water	8260B	
MB 500-409551/6	Method Blank	Total/NA	Water	8260B	
LCS 500-409551/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 409626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136597-6	MW-19	Total/NA	Ground Water	8260B	
500-136597-6 - DL	MW-19	Total/NA	Ground Water	8260B	
500-136597-18	B-13A	Total/NA	Ground Water	8260B	
500-136597-19	B-13B	Total/NA	Ground Water	8260B	
500-136597-20	B-10 Dup	Total/NA	Ground Water	8260B	
500-136597-21	Discharge Pipe	Total/NA	Ground Water	8260B	
500-136597-22	MW-18A	Total/NA	Ground Water	8260B	
500-136597-23	MW-19A	Total/NA	Ground Water	8260B	
500-136597-24	Trip Blank	Total/NA	Water	8260B	
MB 500-409626/6	Method Blank	Total/NA	Water	8260B	
LCS 500-409626/4	Lab Control Sample	Total/NA	Water	8260B	
500-136597-18 MS	B-13A	Total/NA	Ground Water	8260B	
500-136597-18 MSD	B-13A	Total/NA	Ground Water	8260B	

Surrogate Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-136597-1	EX-4	87	86	87	104
500-136597-2	EXW-6	87	85	88	104
500-136597-3	Muni #3	88	85	88	104
500-136597-4	MW-17	89	86	89	105
500-136597-5	MW-18	88	88	88	103
500-136597-6	MW-19	85	91	90	94
500-136597-6 - DL	MW-19	86	91	90	94
500-136597-7	MW-21	89	85	89	103
500-136597-8	MW-21A	90	84	89	104
500-136597-9	B-1	90	87	90	105
500-136597-10	B-1A	89	87	90	103
500-136597-11	B-1B	89	85	90	102
500-136597-12	B-3	91	85	90	102
500-136597-13	B-3A	90	88	89	104
500-136597-14	B-10	91	86	89	104
500-136597-15	B-11	88	88	88	103
500-136597-16	B-12	91	87	90	103
500-136597-17	B-13	90	86	89	103
500-136597-18	B-13A	86	92	90	93
500-136597-18 MS	B-13A	89	87	95	92
500-136597-18 MSD	B-13A	87	89	91	93
500-136597-19	B-13B	88	91	92	92
500-136597-20	B-10 Dup	88	92	90	94
500-136597-21	Discharge Pipe	89	93	92	93
500-136597-22	MW-18A	90	91	92	93
500-136597-23	MW-19A	90	93	91	93

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-136597-24	Trip Blank	89	91	93	92
LCS 500-409551/4	Lab Control Sample	83	86	88	105
LCS 500-409626/4	Lab Control Sample	84	88	88	95
MB 500-409551/6	Method Blank	88	87	89	105
MB 500-409626/6	Method Blank	88	91	88	93

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-409551/6

Matrix: Water

Analysis Batch: 409551

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/12/17 08:28	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/12/17 08:28	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/12/17 08:28	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/12/17 08:28	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/12/17 08:28	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/12/17 08:28	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/12/17 08:28	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/12/17 08:28	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/12/17 08:28	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/12/17 08:28	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/12/17 08:28	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/12/17 08:28	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/12/17 08:28	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/12/17 08:28	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/12/17 08:28	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/12/17 08:28	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/12/17 08:28	1
Benzene	<0.15		0.50	0.15	ug/L			11/12/17 08:28	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/12/17 08:28	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/12/17 08:28	1
Bromoform	<0.48		1.0	0.48	ug/L			11/12/17 08:28	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/12/17 08:28	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/12/17 08:28	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/12/17 08:28	1
Chloroform	<0.37		2.0	0.37	ug/L			11/12/17 08:28	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/12/17 08:28	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/12/17 08:28	1
cis-1,3-Dichloropropane	<0.42		1.0	0.42	ug/L			11/12/17 08:28	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/12/17 08:28	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/12/17 08:28	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/12/17 08:28	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/12/17 08:28	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/12/17 08:28	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/12/17 08:28	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/12/17 08:28	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/12/17 08:28	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/12/17 08:28	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-409551/6
Matrix: Water
Analysis Batch: 409551

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 08:28	1
Styrene	<0.39		1.0	0.39	ug/L			11/12/17 08:28	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/12/17 08:28	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/12/17 08:28	1
Toluene	<0.15		0.50	0.15	ug/L			11/12/17 08:28	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/12/17 08:28	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/12/17 08:28	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/12/17 08:28	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/12/17 08:28	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/12/17 08:28	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/12/17 08:28	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/12/17 08:28	1
4-Bromofluorobenzene (Surr)	87		72 - 124		11/12/17 08:28	1
Dibromofluoromethane	89		75 - 120		11/12/17 08:28	1
Toluene-d8 (Surr)	105		75 - 120		11/12/17 08:28	1

Lab Sample ID: LCS 500-409551/4
Matrix: Water
Analysis Batch: 409551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	41.3		ug/L		83	70 - 125
1,1,1,2-Tetrachloroethane	50.0	40.9		ug/L		82	67 - 127
1,1,1,2-Trichloroethane	50.0	45.1		ug/L		90	70 - 122
1,1-Dichloroethane	50.0	49.2		ug/L		98	70 - 125
1,1-Dichloroethene	50.0	47.2		ug/L		94	67 - 122
1,1-Dichloropropene	50.0	47.5		ug/L		95	70 - 121
1,2,3-Trichlorobenzene	50.0	36.1		ug/L		72	55 - 140
1,2,3-Trichloropropane	50.0	35.3		ug/L		71	50 - 133
1,2,4-Trichlorobenzene	50.0	38.6		ug/L		77	66 - 127
1,2,4-Trimethylbenzene	50.0	43.1		ug/L		86	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	28.7		ug/L		57	56 - 123
1,2-Dibromoethane	50.0	43.9		ug/L		88	70 - 125
1,2-Dichlorobenzene	50.0	43.1		ug/L		86	70 - 125
1,2-Dichloroethane	50.0	41.7		ug/L		83	68 - 127
1,2-Dichloropropane	50.0	49.6		ug/L		99	67 - 130
1,3,5-Trimethylbenzene	50.0	43.4		ug/L		87	70 - 123
1,3-Dichlorobenzene	50.0	43.0		ug/L		86	70 - 125
1,3-Dichloropropane	50.0	47.2		ug/L		94	62 - 136
1,4-Dichlorobenzene	50.0	42.8		ug/L		86	70 - 120
2,2-Dichloropropane	50.0	42.6		ug/L		85	58 - 129
2-Chlorotoluene	50.0	40.5		ug/L		81	70 - 125
4-Chlorotoluene	50.0	40.4		ug/L		81	68 - 124
Benzene	50.0	45.1		ug/L		90	70 - 120

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QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-409551/4
Matrix: Water
Analysis Batch: 409551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	38.7		ug/L		77	70 - 122
Bromochloromethane	50.0	42.3		ug/L		85	65 - 122
Bromodichloromethane	50.0	40.4		ug/L		81	69 - 120
Bromoform	50.0	35.5		ug/L		71	56 - 132
Bromomethane	50.0	39.9		ug/L		80	40 - 130
Carbon tetrachloride	50.0	40.3		ug/L		81	65 - 122
Chlorobenzene	50.0	46.3		ug/L		93	70 - 120
Chloroethane	50.0	47.9		ug/L		96	45 - 127
Chloroform	50.0	42.6		ug/L		85	70 - 120
Chloromethane	50.0	44.0		ug/L		88	54 - 147
cis-1,2-Dichloroethene	50.0	43.8		ug/L		88	70 - 125
cis-1,3-Dichloropropene	50.0	44.3		ug/L		89	64 - 127
Dibromochloromethane	50.0	39.5		ug/L		79	68 - 125
Dibromomethane	50.0	39.4		ug/L		79	70 - 120
Dichlorodifluoromethane	50.0	34.4		ug/L		69	40 - 150
Ethylbenzene	50.0	48.1		ug/L		96	70 - 120
Hexachlorobutadiene	50.0	39.0		ug/L		78	51 - 150
Isopropylbenzene	50.0	44.5		ug/L		89	70 - 126
Methyl tert-butyl ether	50.0	40.6		ug/L		81	70 - 120
Methylene Chloride	50.0	47.9		ug/L		96	69 - 125
Naphthalene	50.0	33.5		ug/L		67	59 - 130
n-Butylbenzene	50.0	43.9		ug/L		88	68 - 125
N-Propylbenzene	50.0	43.0		ug/L		86	69 - 127
p-Isopropyltoluene	50.0	43.7		ug/L		87	70 - 125
sec-Butylbenzene	50.0	45.1		ug/L		90	70 - 123
Styrene	50.0	45.7		ug/L		91	70 - 120
tert-Butylbenzene	50.0	42.5		ug/L		85	70 - 121
Tetrachloroethene	50.0	50.1		ug/L		100	70 - 128
Toluene	50.0	46.1		ug/L		92	70 - 125
trans-1,2-Dichloroethene	50.0	45.9		ug/L		92	70 - 125
trans-1,3-Dichloropropene	50.0	41.7		ug/L		83	62 - 128
Trichloroethene	50.0	47.9		ug/L		96	70 - 125
Trichlorofluoromethane	50.0	39.5		ug/L		79	70 - 126
Vinyl chloride	50.0	45.9		ug/L		92	64 - 126
Xylenes, Total	100	88.7		ug/L		89	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		75 - 126
4-Bromofluorobenzene (Surr)	86		72 - 124
Dibromofluoromethane	88		75 - 120
Toluene-d8 (Surr)	105		75 - 120

Lab Sample ID: MB 500-409626/6
Matrix: Water
Analysis Batch: 409626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			11/13/17 10:30	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-409626/6
Matrix: Water
Analysis Batch: 409626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			11/13/17 10:30	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			11/13/17 10:30	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			11/13/17 10:30	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			11/13/17 10:30	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			11/13/17 10:30	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			11/13/17 10:30	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			11/13/17 10:30	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			11/13/17 10:30	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			11/13/17 10:30	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			11/13/17 10:30	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			11/13/17 10:30	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			11/13/17 10:30	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:30	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			11/13/17 10:30	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			11/13/17 10:30	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			11/13/17 10:30	1
Benzene	<0.15		0.50	0.15	ug/L			11/13/17 10:30	1
Bromobenzene	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			11/13/17 10:30	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			11/13/17 10:30	1
Bromoform	<0.48		1.0	0.48	ug/L			11/13/17 10:30	1
Bromomethane	<0.80		2.0	0.80	ug/L			11/13/17 10:30	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			11/13/17 10:30	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
Chloroethane	<0.51		1.0	0.51	ug/L			11/13/17 10:30	1
Chloroform	<0.37		2.0	0.37	ug/L			11/13/17 10:30	1
Chloromethane	<0.32		1.0	0.32	ug/L			11/13/17 10:30	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			11/13/17 10:30	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			11/13/17 10:30	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			11/13/17 10:30	1
Dibromomethane	<0.27		1.0	0.27	ug/L			11/13/17 10:30	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			11/13/17 10:30	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			11/13/17 10:30	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			11/13/17 10:30	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			11/13/17 10:30	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			11/13/17 10:30	1
Naphthalene	<0.34		1.0	0.34	ug/L			11/13/17 10:30	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			11/13/17 10:30	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-409626/6
Matrix: Water
Analysis Batch: 409626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:30	1
Styrene	<0.39		1.0	0.39	ug/L			11/13/17 10:30	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			11/13/17 10:30	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			11/13/17 10:30	1
Toluene	<0.15		0.50	0.15	ug/L			11/13/17 10:30	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			11/13/17 10:30	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			11/13/17 10:30	1
Trichloroethene	<0.16		0.50	0.16	ug/L			11/13/17 10:30	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			11/13/17 10:30	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			11/13/17 10:30	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			11/13/17 10:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/13/17 10:30	1
4-Bromofluorobenzene (Surr)	91		72 - 124		11/13/17 10:30	1
Dibromofluoromethane	88		75 - 120		11/13/17 10:30	1
Toluene-d8 (Surr)	93		75 - 120		11/13/17 10:30	1

Lab Sample ID: LCS 500-409626/4
Matrix: Water
Analysis Batch: 409626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.1		ug/L		102	70 - 125
1,1,1-Trichloroethane	50.0	51.1		ug/L		102	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	47.0		ug/L		94	67 - 127
1,1,1,2-Trichloroethane	50.0	53.2		ug/L		106	70 - 122
1,1-Dichloroethane	50.0	51.4		ug/L		103	70 - 125
1,1-Dichloroethene	50.0	52.2		ug/L		104	67 - 122
1,1-Dichloropropene	50.0	52.9		ug/L		106	70 - 121
1,2,3-Trichlorobenzene	50.0	57.5		ug/L		115	55 - 140
1,2,3-Trichloropropane	50.0	46.6		ug/L		93	50 - 133
1,2,4-Trichlorobenzene	50.0	58.7		ug/L		117	66 - 127
1,2,4-Trimethylbenzene	50.0	49.9		ug/L		100	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	47.7		ug/L		95	56 - 123
1,2-Dibromoethane	50.0	51.5		ug/L		103	70 - 125
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	70 - 125
1,2-Dichloroethane	50.0	48.6		ug/L		97	68 - 127
1,2-Dichloropropane	50.0	52.6		ug/L		105	67 - 130
1,3,5-Trimethylbenzene	50.0	50.6		ug/L		101	70 - 123
1,3-Dichlorobenzene	50.0	51.7		ug/L		103	70 - 125
1,3-Dichloropropane	50.0	51.7		ug/L		103	62 - 136
1,4-Dichlorobenzene	50.0	51.4		ug/L		103	70 - 120
2,2-Dichloropropane	50.0	52.7		ug/L		105	58 - 129
2-Chlorotoluene	50.0	49.6		ug/L		99	70 - 125
4-Chlorotoluene	50.0	49.6		ug/L		99	68 - 124
Benzene	50.0	52.8		ug/L		106	70 - 120
Bromobenzene	50.0	50.5		ug/L		101	70 - 122

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-409626/4

Matrix: Water

Analysis Batch: 409626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromochloromethane	50.0	50.1		ug/L		100	65 - 122
Bromodichloromethane	50.0	50.4		ug/L		101	69 - 120
Bromoform	50.0	56.0		ug/L		112	56 - 132
Bromomethane	50.0	41.0		ug/L		82	40 - 130
Carbon tetrachloride	50.0	52.2		ug/L		104	65 - 122
Chlorobenzene	50.0	53.6		ug/L		107	70 - 120
Chloroethane	50.0	43.8		ug/L		88	45 - 127
Chloroform	50.0	48.9		ug/L		98	70 - 120
Chloromethane	50.0	43.6		ug/L		87	54 - 147
cis-1,2-Dichloroethene	50.0	51.2		ug/L		102	70 - 125
cis-1,3-Dichloropropene	50.0	52.4		ug/L		105	64 - 127
Dibromochloromethane	50.0	53.2		ug/L		106	68 - 125
Dibromomethane	50.0	50.5		ug/L		101	70 - 120
Dichlorodifluoromethane	50.0	54.9		ug/L		110	40 - 150
Ethylbenzene	50.0	53.8		ug/L		108	70 - 120
Hexachlorobutadiene	50.0	61.9		ug/L		124	51 - 150
Isopropylbenzene	50.0	49.5		ug/L		99	70 - 126
Methyl tert-butyl ether	50.0	50.5		ug/L		101	70 - 120
Methylene Chloride	50.0	53.1		ug/L		106	69 - 125
Naphthalene	50.0	52.9		ug/L		106	59 - 130
n-Butylbenzene	50.0	51.9		ug/L		104	68 - 125
N-Propylbenzene	50.0	49.3		ug/L		99	69 - 127
p-Isopropyltoluene	50.0	51.6		ug/L		103	70 - 125
sec-Butylbenzene	50.0	49.9		ug/L		100	70 - 123
Styrene	50.0	54.3		ug/L		109	70 - 120
tert-Butylbenzene	50.0	50.2		ug/L		100	70 - 121
Tetrachloroethene	50.0	57.8		ug/L		116	70 - 128
Toluene	50.0	55.8		ug/L		112	70 - 125
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	70 - 125
trans-1,3-Dichloropropene	50.0	51.4		ug/L		103	62 - 128
Trichloroethene	50.0	52.6		ug/L		105	70 - 125
Trichlorofluoromethane	50.0	45.2		ug/L		90	70 - 126
Vinyl chloride	50.0	51.7		ug/L		103	64 - 126
Xylenes, Total	100	107		ug/L		107	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	84		75 - 126
4-Bromofluorobenzene (Surr)	88		72 - 124
Dibromofluoromethane	88		75 - 120
Toluene-d8 (Surr)	95		75 - 120

Lab Sample ID: 500-136597-18 MS

Matrix: Ground Water

Analysis Batch: 409626

Client Sample ID: B-13A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<0.46		50.0	51.9		ug/L		104	70 - 125
1,1,1-Trichloroethane	<0.38		50.0	50.1		ug/L		100	70 - 125

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-136597-18 MS

Matrix: Ground Water

Analysis Batch: 409626

Client Sample ID: B-13A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	<0.40		50.0	47.8		ug/L		96	67 - 127
1,1,2-Trichloroethane	<0.35		50.0	52.5		ug/L		105	70 - 122
1,1-Dichloroethane	<0.41		50.0	52.3		ug/L		105	70 - 125
1,1-Dichloroethene	<0.39		50.0	51.3		ug/L		103	67 - 122
1,1-Dichloropropene	<0.30		50.0	50.9		ug/L		102	70 - 121
1,2,3-Trichlorobenzene	<0.46		50.0	57.1		ug/L		114	55 - 140
1,2,3-Trichloropropane	<0.41		50.0	46.8		ug/L		94	50 - 133
1,2,4-Trichlorobenzene	<0.34		50.0	53.6		ug/L		107	66 - 127
1,2,4-Trimethylbenzene	<0.36		50.0	47.5		ug/L		95	70 - 123
1,2-Dibromo-3-Chloropropane	<2.0		50.0	49.2		ug/L		98	56 - 123
1,2-Dibromoethane	<0.39		50.0	51.3		ug/L		103	70 - 125
1,2-Dichlorobenzene	<0.33		50.0	51.0		ug/L		102	70 - 125
1,2-Dichloroethane	<0.39		50.0	50.2		ug/L		100	68 - 127
1,2-Dichloropropane	<0.43		50.0	52.4		ug/L		105	67 - 130
1,3,5-Trimethylbenzene	<0.25		50.0	47.8		ug/L		96	70 - 123
1,3-Dichlorobenzene	<0.40		50.0	49.5		ug/L		99	70 - 125
1,3-Dichloropropane	<0.36		50.0	50.3		ug/L		101	62 - 136
1,4-Dichlorobenzene	<0.36		50.0	48.8		ug/L		98	70 - 120
2,2-Dichloropropane	<0.44		50.0	47.9		ug/L		96	58 - 129
2-Chlorotoluene	<0.31		50.0	46.8		ug/L		94	70 - 125
4-Chlorotoluene	<0.35		50.0	47.1		ug/L		94	68 - 124
Benzene	<0.15		50.0	52.4		ug/L		105	70 - 120
Bromobenzene	<0.36		50.0	50.0		ug/L		100	70 - 122
Bromochloromethane	<0.43		50.0	54.2		ug/L		108	65 - 122
Bromodichloromethane	<0.37		50.0	50.7		ug/L		101	69 - 120
Bromoform	<0.48		50.0	54.3		ug/L		109	56 - 132
Bromomethane	<0.80		50.0	40.6		ug/L		81	40 - 130
Carbon tetrachloride	<0.38		50.0	50.4		ug/L		101	65 - 122
Chlorobenzene	<0.39		50.0	50.9		ug/L		102	70 - 120
Chloroethane	<0.51		50.0	31.5		ug/L		63	45 - 127
Chloroform	<0.37		50.0	49.9		ug/L		100	70 - 120
Chloromethane	<0.32		50.0	43.2		ug/L		86	54 - 147
cis-1,2-Dichloroethene	<0.41		50.0	52.4		ug/L		105	70 - 125
cis-1,3-Dichloropropene	<0.42		50.0	48.6		ug/L		97	64 - 127
Dibromochloromethane	<0.49		50.0	51.9		ug/L		104	68 - 125
Dibromomethane	<0.27		50.0	52.8		ug/L		106	70 - 120
Dichlorodifluoromethane	<0.67		50.0	53.9		ug/L		108	40 - 150
Ethylbenzene	<0.18		50.0	50.3		ug/L		101	70 - 120
Hexachlorobutadiene	<0.45		50.0	57.1		ug/L		114	51 - 150
Isopropylbenzene	<0.39		50.0	45.6		ug/L		91	70 - 126
Methyl tert-butyl ether	<0.39		50.0	53.4		ug/L		107	70 - 120
Methylene Chloride	9.8	cn	50.0	57.5		ug/L		95	69 - 125
Naphthalene	<0.34		50.0	53.9		ug/L		108	59 - 130
n-Butylbenzene	<0.39		50.0	47.1		ug/L		94	68 - 125
N-Propylbenzene	<0.41		50.0	45.1		ug/L		90	69 - 127
p-Isopropyltoluene	<0.36		50.0	47.8		ug/L		96	70 - 125
sec-Butylbenzene	<0.40		50.0	46.7		ug/L		93	70 - 123
Styrene	<0.39		50.0	53.1		ug/L		106	70 - 120

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-136597-18 MS
Matrix: Ground Water
Analysis Batch: 409626

Client Sample ID: B-13A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	<0.40		50.0	47.3		ug/L		95	70 - 121
Tetrachloroethene	0.81	J	50.0	53.0		ug/L		104	70 - 128
Toluene	<0.15		50.0	52.5		ug/L		105	70 - 125
trans-1,2-Dichloroethene	<0.35		50.0	51.0		ug/L		102	70 - 125
trans-1,3-Dichloropropene	<0.36		50.0	48.5		ug/L		97	62 - 128
Trichloroethene	<0.16		50.0	50.8		ug/L		102	70 - 125
Trichlorofluoromethane	<0.43		50.0	45.3		ug/L		91	70 - 126
Vinyl chloride	<0.20		50.0	50.5		ug/L		101	64 - 126
Xylenes, Total	<0.22		100	102		ug/L		102	70 - 125
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	89		75 - 126						
4-Bromofluorobenzene (Surr)	87		72 - 124						
Dibromofluoromethane	95		75 - 120						
Toluene-d8 (Surr)	92		75 - 120						

Lab Sample ID: 500-136597-18 MSD
Matrix: Ground Water
Analysis Batch: 409626

Client Sample ID: B-13A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<0.46		50.0	47.1		ug/L		94	70 - 125	10	20
1,1,1-Trichloroethane	<0.38		50.0	46.8		ug/L		94	70 - 125	7	20
1,1,1,2,2-Tetrachloroethane	<0.40		50.0	45.0		ug/L		90	67 - 127	6	20
1,1,1,2-Trichloroethane	<0.35		50.0	50.1		ug/L		100	70 - 122	5	20
1,1-Dichloroethane	<0.41		50.0	48.0		ug/L		96	70 - 125	9	20
1,1-Dichloroethene	<0.39		50.0	46.4		ug/L		93	67 - 122	10	20
1,1-Dichloropropene	<0.30		50.0	48.0		ug/L		96	70 - 121	6	20
1,2,3-Trichlorobenzene	<0.46		50.0	55.7		ug/L		111	55 - 140	2	20
1,2,3-Trichloropropane	<0.41		50.0	44.0		ug/L		88	50 - 133	6	20
1,2,4-Trichlorobenzene	<0.34		50.0	52.1		ug/L		104	66 - 127	3	20
1,2,4-Trimethylbenzene	<0.36		50.0	46.5		ug/L		93	70 - 123	2	20
1,2-Dibromo-3-Chloropropane	<2.0		50.0	44.8		ug/L		90	56 - 123	9	20
1,2-Dibromoethane	<0.39		50.0	48.6		ug/L		97	70 - 125	5	20
1,2-Dichlorobenzene	<0.33		50.0	49.0		ug/L		98	70 - 125	4	20
1,2-Dichloroethane	<0.39		50.0	46.8		ug/L		94	68 - 127	7	20
1,2-Dichloropropane	<0.43		50.0	49.9		ug/L		100	67 - 130	5	20
1,3,5-Trimethylbenzene	<0.25		50.0	46.8		ug/L		94	70 - 123	2	20
1,3-Dichlorobenzene	<0.40		50.0	48.3		ug/L		97	70 - 125	2	20
1,3-Dichloropropane	<0.36		50.0	48.6		ug/L		97	62 - 136	3	20
1,4-Dichlorobenzene	<0.36		50.0	47.3		ug/L		95	70 - 120	3	20
2,2-Dichloropropane	<0.44		50.0	45.0		ug/L		90	58 - 129	6	20
2-Chlorotoluene	<0.31		50.0	46.7		ug/L		93	70 - 125	0	20
4-Chlorotoluene	<0.35		50.0	46.1		ug/L		92	68 - 124	2	20
Benzene	<0.15		50.0	49.2		ug/L		98	70 - 120	6	20
Bromobenzene	<0.36		50.0	48.9		ug/L		98	70 - 122	2	20
Bromochloromethane	<0.43		50.0	48.1		ug/L		96	65 - 122	12	20
Bromodichloromethane	<0.37		50.0	47.9		ug/L		96	69 - 120	6	20

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-136597-18 MSD
Matrix: Ground Water
Analysis Batch: 409626

Client Sample ID: B-13A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	<0.48		50.0	49.1		ug/L		98	56 - 132	10	20
Bromomethane	<0.80		50.0	37.0		ug/L		74	40 - 130	9	20
Carbon tetrachloride	<0.38		50.0	47.2		ug/L		94	65 - 122	6	20
Chlorobenzene	<0.39		50.0	49.0		ug/L		98	70 - 120	4	20
Chloroethane	<0.51		50.0	30.5		ug/L		61	45 - 127	3	20
Chloroform	<0.37		50.0	45.9		ug/L		92	70 - 120	8	20
Chloromethane	<0.32		50.0	38.8		ug/L		78	54 - 147	11	20
cis-1,2-Dichloroethene	<0.41		50.0	47.9		ug/L		96	70 - 125	9	20
cis-1,3-Dichloropropene	<0.42		50.0	47.3		ug/L		95	64 - 127	3	20
Dibromochloromethane	<0.49		50.0	48.8		ug/L		98	68 - 125	6	20
Dibromomethane	<0.27		50.0	47.8		ug/L		96	70 - 120	10	20
Dichlorodifluoromethane	<0.67		50.0	46.5		ug/L		93	40 - 150	15	20
Ethylbenzene	<0.18		50.0	48.2		ug/L		96	70 - 120	4	20
Hexachlorobutadiene	<0.45		50.0	53.7		ug/L		107	51 - 150	6	20
Isopropylbenzene	<0.39		50.0	45.7		ug/L		91	70 - 126	0	20
Methyl tert-butyl ether	<0.39		50.0	49.0		ug/L		98	70 - 120	9	20
Methylene Chloride	9.8	cn	50.0	52.0		ug/L		84	69 - 125	10	20
Naphthalene	<0.34		50.0	53.5		ug/L		107	59 - 130	1	20
n-Butylbenzene	<0.39		50.0	45.5		ug/L		91	68 - 125	3	20
N-Propylbenzene	<0.41		50.0	45.3		ug/L		91	69 - 127	0	20
p-Isopropyltoluene	<0.36		50.0	46.7		ug/L		93	70 - 125	2	20
sec-Butylbenzene	<0.40		50.0	45.7		ug/L		91	70 - 123	2	20
Styrene	<0.39		50.0	49.9		ug/L		100	70 - 120	6	20
tert-Butylbenzene	<0.40		50.0	46.7		ug/L		93	70 - 121	1	20
Tetrachloroethene	0.81	J	50.0	52.0		ug/L		102	70 - 128	2	20
Toluene	<0.15		50.0	50.7		ug/L		101	70 - 125	4	20
trans-1,2-Dichloroethene	<0.35		50.0	46.7		ug/L		93	70 - 125	9	20
trans-1,3-Dichloropropene	<0.36		50.0	45.8		ug/L		92	62 - 128	6	20
Trichloroethene	<0.16		50.0	48.1		ug/L		96	70 - 125	5	20
Trichlorofluoromethane	<0.43		50.0	41.3		ug/L		83	70 - 126	9	20
Vinyl chloride	<0.20		50.0	45.9		ug/L		92	64 - 126	10	20
Xylenes, Total	<0.22		100	96.7		ug/L		97	70 - 125	5	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	87		75 - 126
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane	91		75 - 120
Toluene-d8 (Surr)	93		75 - 120

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: EX-4
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 09:21	PMF	TAL CHI

Client Sample ID: EXW-6
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 09:49	PMF	TAL CHI

Client Sample ID: Muni #3
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 10:17	PMF	TAL CHI

Client Sample ID: MW-17
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 10:44	PMF	TAL CHI

Client Sample ID: MW-18
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 11:11	PMF	TAL CHI

Client Sample ID: MW-19
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 10:57	EMA	TAL CHI
Total/NA	Analysis	8260B	DL	10	409626	11/13/17 11:24	EMA	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: MW-21

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 11:38	PMF	TAL CHI

Client Sample ID: MW-21A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 12:05	PMF	TAL CHI

Client Sample ID: B-1

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 12:34	PMF	TAL CHI

Client Sample ID: B-1A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 13:01	PMF	TAL CHI

Client Sample ID: B-1B

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 13:28	PMF	TAL CHI

Client Sample ID: B-3

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-12

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 13:55	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-3A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-13
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 14:23	PMF	TAL CHI

Client Sample ID: B-10
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-14
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 14:50	PMF	TAL CHI

Client Sample ID: B-11
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-15
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 15:17	PMF	TAL CHI

Client Sample ID: B-12
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-16
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 15:43	PMF	TAL CHI

Client Sample ID: B-13
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-17
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409551	11/12/17 16:10	PMF	TAL CHI

Client Sample ID: B-13A
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-18
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 11:50	EMA	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Client Sample ID: B-13B

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-19

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 12:16	EMA	TAL CHI

Client Sample ID: B-10 Dup

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-20

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 12:45	EMA	TAL CHI

Client Sample ID: Discharge Pipe

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-21

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 13:12	EMA	TAL CHI

Client Sample ID: MW-18A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-22

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 13:39	EMA	TAL CHI

Client Sample ID: MW-19A

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-23

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 14:06	EMA	TAL CHI

Client Sample ID: Trip Blank

Date Collected: 10/31/17 00:00

Date Received: 11/01/17 09:05

Lab Sample ID: 500-136597-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409626	11/13/17 14:33	EMA	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-136597-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Luster (optional)
 Contact: _____
 Company: MSPA Professional
 Address: 123D Smith Blvd.
Banabrod, WI 53919
 Phone: 608-356-2771
 Fax: _____
 E-Mail: _____

Bill To: _____ (optional)
 Contact: _____
 Company: _____
 Address: Genne
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-136597
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: 10 → 0c



500-136597 COC

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Client		Client Project #		Preservative		Parameter	Matrix	# of Containers	Matrix	Comments	
Project Name		Lab Project #		Sampler							Lab PM
Lab ID	MS/MSD	Sample ID	Date	Time							
1		Exw-4	12/30	3/1/17	3	6w	X				
2		Exw-6			3	1	X				
3		Muni #3			3	1	X				
4		MW-17			3	1	X				
5		MW-18			3	1	X				
6		MW-19			3	1	X				
7		MW-21			3	1	X				
8		MW-21A			3	1	X				
9		B-1			3	1	X				
10		B-1A			3	1	X				

Turnaround Time Required (Business Days): 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>MSPA</u> Date: <u>12/31/17</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/1/17</u> Time: <u>0905</u>	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Shipped: <input checked="" type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Hupter (optional)
 Contact: _____
 Company: MSA Professional
 Address: 1232 South Blvd
 Address: Bonabon WI 53913
 Phone: 608-356-2771
 Fax: _____
 E-Mail: _____

Bill To: _____ (optional)
 Contact: _____
 Company: _____
 Address: Same
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-136597
 Chain of Custody Number: _____
 Page 2 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
<u>MSA Professional</u>		<u>8267019</u>						<u>VOL</u>			
Project Name		Project Location/State		Lab Project #		Lab PM					
<u>Munziqua Cleaners</u>		<u>Munziqua, WI</u>				<u>DAVID FITZSIMMONS</u>					
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix					
			Date	Time							
11		B-1B	12/30	3/1/17	3	bw	X				
12		B-3			3		X				
13		B-3A			3		X				
14		B-1D			3		X				
15		B-11			3		X				
16		B-12			3		X				
17		B-13			3		X				
18		B-13A			3		X				
19		B-13B			3		X				
20		B-1D Dup			3		X				

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days): 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: _____ Date: <u>12/31/17</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/1/17</u> Time: <u>0905</u>	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Lopez (optional)
 Contact: _____
 Company: MSA Professional
 Address: 1230 South Blvd
Bonanza, WI 53913
 Address: Samuel
 Phone: 608-356-2771
 Phone: _____
 Fax: _____
 Fax: _____
 E-Mail: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-136597
 Chain of Custody Number: _____
 Page 3 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
MSA Professional		8267019									
Project Name		Project Location/State		Lab Project #		SAMPLING		Matrix			
Minscena Cleaners		Minscena, WI				Date Time		VOL			
SAMPLER		Lab PM						8267019			
David Fitzsimmons											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
21		Discharge Pipe	11/30	31/17	3	GW	X				
22		MW-18A	↓		3	↓	X				
23		MW-19A	↓		3	↓	X				
24		Trig Blank	↓		2	↓	X				

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days): 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>MSA</u> Date: <u>11/30/17</u> Time: _____	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/1/17</u> Time: <u>0905</u>	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: MSA Professional Services, Inc

Job Number: 500-136597-1

Login Number: 136597

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144531-1
Client Project/Site: Minocqua Cleaners - 8267019

For:
MSA Professional Services, Inc
1230 South Blvd
Baraboo, Wisconsin 53913

Attn: Mr. Richard Lyster



Authorized for release by:
5/11/2018 2:00:13 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.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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Case Narrative

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Job ID: 500-144531-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-144531-1

Comments

No additional comments.

Receipt

The samples were received on 4/28/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: EXW-4

Lab Sample ID: 500-144531-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	1.3		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: EXW-6

Lab Sample ID: 500-144531-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	19		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	7.6		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	13		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	1.3		1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: Muni #3

Lab Sample ID: 500-144531-3

No Detections.

Client Sample ID: MW-17

Lab Sample ID: 500-144531-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6.0		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.5		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.96		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	4.5		1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 500-144531-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.49	J	1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.43	J	1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 500-144531-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.1		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.94		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	4.7		1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: MW-20

Lab Sample ID: 500-144531-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	4.6		1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 500-144531-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	88		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	2.3		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-21A

Lab Sample ID: 500-144531-9

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-21A (Continued)

Lab Sample ID: 500-144531-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	53		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.8		1.0	0.37	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.64	J	1.0	0.35	ug/L	1		8260B	Total/NA
Trichloroethene	7.0		0.50	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	5.6		1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: B-1

Lab Sample ID: 500-144531-10

No Detections.

Client Sample ID: B-1A

Lab Sample ID: 500-144531-11

No Detections.

Client Sample ID: B-1B

Lab Sample ID: 500-144531-12

No Detections.

Client Sample ID: B-3

Lab Sample ID: 500-144531-13

No Detections.

Client Sample ID: B-3A

Lab Sample ID: 500-144531-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.71	J	1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.25	J	0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: B-10

Lab Sample ID: 500-144531-15

No Detections.

Client Sample ID: B-11

Lab Sample ID: 500-144531-16

No Detections.

Client Sample ID: B-12

Lab Sample ID: 500-144531-17

No Detections.

Client Sample ID: B-13

Lab Sample ID: 500-144531-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromodichloromethane	0.87	J	1.0	0.37	ug/L	1		8260B	Total/NA
Chloroform	7.4		2.0	0.37	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	29		1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	35		1.0	0.37	ug/L	1		8260B	Total/NA
Toluene	0.25	J	0.50	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	15		0.50	0.16	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13A

Lab Sample ID: 500-144531-19

No Detections.

Client Sample ID: B-13B

Lab Sample ID: 500-144531-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.3		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	0.43	J	0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18A

Lab Sample ID: 500-144531-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.60	J	1.0	0.41	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.98	J	1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	1.0		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19A

Lab Sample ID: 500-144531-22

No Detections.

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-144531-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	1.0		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: B-1 Dup

Lab Sample ID: 500-144531-24

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 500-144531-25

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144531-1	EXW-4	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-2	EXW-6	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-3	Muni #3	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-4	MW-17	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-5	MW-18	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-6	MW-19	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-7	MW-20	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-8	MW-21	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-9	MW-21A	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-10	B-1	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-11	B-1A	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-12	B-1B	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-13	B-3	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-14	B-3A	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-15	B-10	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-16	B-11	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-17	B-12	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-18	B-13	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-19	B-13A	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-20	B-13B	Ground Water	04/27/18 00:00	04/28/18 10:30
500-144531-21	MW-18A	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-22	MW-19A	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-23	Discharge Pipe	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-24	B-1 Dup	Ground Water	04/26/18 00:00	04/28/18 10:30
500-144531-25	Trip Blank	Water	04/26/18 00:00	04/28/18 10:30

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: EXW-4
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-1
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 12:50	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 12:50	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 12:50	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 12:50	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 12:50	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 12:50	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 12:50	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 12:50	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 12:50	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 12:50	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 12:50	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 12:50	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 12:50	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 12:50	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 12:50	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 12:50	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 12:50	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 12:50	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 12:50	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 12:50	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 12:50	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 12:50	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 12:50	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 12:50	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 12:50	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 12:50	1
cis-1,2-Dichloroethene	1.7		1.0	0.41	ug/L			05/09/18 12:50	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 12:50	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 12:50	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 12:50	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 12:50	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 12:50	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 12:50	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 12:50	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 12:50	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 12:50	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 12:50	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: EXW-4

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-1

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 12:50	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 12:50	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 12:50	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 12:50	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 12:50	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 12:50	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 12:50	1
Trichloroethene	1.3		0.50	0.16	ug/L			05/09/18 12:50	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 12:50	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 12:50	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 12:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 126					05/09/18 12:50	1
4-Bromofluorobenzene (Surr)	100		72 - 124					05/09/18 12:50	1
Dibromofluoromethane	92		75 - 120					05/09/18 12:50	1
Toluene-d8 (Surr)	93		75 - 120					05/09/18 12:50	1

Client Sample ID: EXW-6

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 13:15	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 13:15	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 13:15	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 13:15	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 13:15	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 13:15	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 13:15	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 13:15	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 13:15	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 13:15	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 13:15	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 13:15	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 13:15	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:15	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 13:15	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 13:15	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 13:15	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 13:15	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 13:15	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: EXW-6

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-2

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 13:15	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 13:15	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 13:15	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 13:15	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 13:15	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 13:15	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 13:15	1
cis-1,2-Dichloroethene	19		1.0	0.41	ug/L			05/09/18 13:15	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 13:15	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 13:15	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 13:15	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 13:15	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 13:15	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 13:15	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 13:15	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 13:15	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 13:15	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 13:15	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:15	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 13:15	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:15	1
Tetrachloroethene	7.6		1.0	0.37	ug/L			05/09/18 13:15	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 13:15	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 13:15	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 13:15	1
Trichloroethene	13		0.50	0.16	ug/L			05/09/18 13:15	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 13:15	1
Vinyl chloride	1.3		1.0	0.20	ug/L			05/09/18 13:15	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 13:15	1
4-Bromofluorobenzene (Surr)	100		72 - 124		05/09/18 13:15	1
Dibromofluoromethane	92		75 - 120		05/09/18 13:15	1
Toluene-d8 (Surr)	95		75 - 120		05/09/18 13:15	1

Client Sample ID: Muni #3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 04:08	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 04:08	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 04:08	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Muni #3

Lab Sample ID: 500-144531-3

Date Collected: 04/27/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 04:08	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 04:08	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 04:08	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 04:08	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 04:08	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 04:08	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 04:08	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 04:08	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 04:08	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 04:08	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:08	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 04:08	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 04:08	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 04:08	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 04:08	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:08	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 04:08	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 04:08	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 04:08	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 04:08	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 04:08	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 04:08	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 04:08	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 04:08	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 04:08	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 04:08	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 04:08	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 04:08	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 04:08	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 04:08	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 04:08	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 04:08	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 04:08	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 04:08	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:08	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 04:08	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:08	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Muni #3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-3

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 04:08	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 04:08	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 04:08	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 04:08	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 04:08	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:08	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 04:08	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 04:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126					05/10/18 04:08	1
4-Bromofluorobenzene (Surr)	107		72 - 124					05/10/18 04:08	1
Dibromofluoromethane	95		75 - 120					05/10/18 04:08	1
Toluene-d8 (Surr)	92		75 - 120					05/10/18 04:08	1

Client Sample ID: MW-17

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-4

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 13:41	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 13:41	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 13:41	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 13:41	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 13:41	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 13:41	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 13:41	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 13:41	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 13:41	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 13:41	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 13:41	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 13:41	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 13:41	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:41	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 13:41	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 13:41	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 13:41	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 13:41	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 13:41	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 13:41	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 13:41	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 13:41	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-17

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-4

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 13:41	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 13:41	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 13:41	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 13:41	1
cis-1,2-Dichloroethene	6.0		1.0	0.41	ug/L			05/09/18 13:41	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 13:41	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 13:41	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 13:41	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 13:41	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 13:41	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 13:41	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 13:41	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 13:41	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 13:41	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 13:41	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:41	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 13:41	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 13:41	1
Tetrachloroethene	2.5		1.0	0.37	ug/L			05/09/18 13:41	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 13:41	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 13:41	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 13:41	1
Trichloroethene	0.96		0.50	0.16	ug/L			05/09/18 13:41	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 13:41	1
Vinyl chloride	4.5		1.0	0.20	ug/L			05/09/18 13:41	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		05/09/18 13:41	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 13:41	1
Dibromofluoromethane	92		75 - 120		05/09/18 13:41	1
Toluene-d8 (Surr)	93		75 - 120		05/09/18 13:41	1

Client Sample ID: MW-18

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 14:06	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 14:06	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 14:06	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 14:06	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 14:06	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-18

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 14:06	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 14:06	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 14:06	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 14:06	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 14:06	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 14:06	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 14:06	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 14:06	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:06	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 14:06	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 14:06	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 14:06	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 14:06	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:06	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 14:06	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 14:06	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 14:06	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 14:06	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 14:06	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 14:06	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 14:06	1
cis-1,2-Dichloroethene	0.49	J	1.0	0.41	ug/L			05/09/18 14:06	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 14:06	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 14:06	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 14:06	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 14:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 14:06	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 14:06	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 14:06	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 14:06	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 14:06	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 14:06	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:06	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 14:06	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:06	1
Tetrachloroethene	0.43	J	1.0	0.37	ug/L			05/09/18 14:06	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 14:06	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 14:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-18

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-5

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 14:06	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 14:06	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:06	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 14:06	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 14:06	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 14:06	1
Dibromofluoromethane	95		75 - 120		05/09/18 14:06	1
Toluene-d8 (Surr)	91		75 - 120		05/09/18 14:06	1

Client Sample ID: MW-19

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-6

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 14:32	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 14:32	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 14:32	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 14:32	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 14:32	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 14:32	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 14:32	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 14:32	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 14:32	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 14:32	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 14:32	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 14:32	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 14:32	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:32	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 14:32	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 14:32	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 14:32	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 14:32	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:32	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 14:32	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 14:32	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 14:32	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 14:32	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 14:32	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-19

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-6

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 14:32	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 14:32	1
cis-1,2-Dichloroethene	12		1.0	0.41	ug/L			05/09/18 14:32	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 14:32	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 14:32	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 14:32	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 14:32	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 14:32	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 14:32	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 14:32	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 14:32	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 14:32	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 14:32	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:32	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 14:32	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:32	1
Tetrachloroethene	2.1		1.0	0.37	ug/L			05/09/18 14:32	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 14:32	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 14:32	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 14:32	1
Trichloroethene	0.94		0.50	0.16	ug/L			05/09/18 14:32	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:32	1
Vinyl chloride	4.7		1.0	0.20	ug/L			05/09/18 14:32	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		75 - 126		05/09/18 14:32	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 14:32	1
Dibromofluoromethane	97		75 - 120		05/09/18 14:32	1
Toluene-d8 (Surr)	91		75 - 120		05/09/18 14:32	1

Client Sample ID: MW-20

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 14:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 14:57	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 14:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 14:57	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 14:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 14:57	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 14:57	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 14:57	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-20

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-7

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 14:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 14:57	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 14:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 14:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 14:57	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:57	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 14:57	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 14:57	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 14:57	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 14:57	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:57	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 14:57	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 14:57	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 14:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 14:57	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 14:57	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 14:57	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 14:57	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 14:57	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 14:57	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 14:57	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 14:57	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 14:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 14:57	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 14:57	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 14:57	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 14:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 14:57	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 14:57	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:57	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 14:57	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 14:57	1
Tetrachloroethene	4.6		1.0	0.37	ug/L			05/09/18 14:57	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 14:57	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 14:57	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 14:57	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 14:57	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 14:57	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-20
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-7
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 14:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 14:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					05/09/18 14:57	1
4-Bromofluorobenzene (Surr)	103		72 - 124					05/09/18 14:57	1
Dibromofluoromethane	91		75 - 120					05/09/18 14:57	1
Toluene-d8 (Surr)	92		75 - 120					05/09/18 14:57	1

Client Sample ID: MW-21
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-8
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 15:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 15:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 15:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 15:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 15:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 15:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 15:23	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 15:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 15:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 15:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 15:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 15:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 15:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 15:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 15:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 15:23	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 15:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 15:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 15:23	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 15:23	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 15:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 15:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 15:23	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 15:23	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 15:23	1
cis-1,2-Dichloroethene	1.8		1.0	0.41	ug/L			05/09/18 15:23	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-21

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-8

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 15:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 15:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 15:23	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 15:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 15:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 15:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 15:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 15:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 15:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 15:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:23	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 15:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:23	1
Tetrachloroethene	88		1.0	0.37	ug/L			05/09/18 15:23	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 15:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 15:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 15:23	1
Trichloroethene	2.3		0.50	0.16	ug/L			05/09/18 15:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 15:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 15:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		05/09/18 15:23	1
4-Bromofluorobenzene (Surr)	101		72 - 124		05/09/18 15:23	1
Dibromofluoromethane	92		75 - 120		05/09/18 15:23	1
Toluene-d8 (Surr)	92		75 - 120		05/09/18 15:23	1

Client Sample ID: MW-21A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-9

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 15:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 15:48	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 15:48	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 15:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 15:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 15:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 15:48	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 15:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 15:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 15:48	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-21A

Lab Sample ID: 500-144531-9

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 15:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 15:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 15:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 15:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 15:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 15:48	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 15:48	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 15:48	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 15:48	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 15:48	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 15:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 15:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 15:48	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 15:48	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 15:48	1
cis-1,2-Dichloroethene	53		1.0	0.41	ug/L			05/09/18 15:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 15:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 15:48	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 15:48	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 15:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 15:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 15:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 15:48	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 15:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 15:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 15:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:48	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 15:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 15:48	1
Tetrachloroethene	2.8		1.0	0.37	ug/L			05/09/18 15:48	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 15:48	1
trans-1,2-Dichloroethene	0.64 J		1.0	0.35	ug/L			05/09/18 15:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 15:48	1
Trichloroethene	7.0		0.50	0.16	ug/L			05/09/18 15:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 15:48	1
Vinyl chloride	5.6		1.0	0.20	ug/L			05/09/18 15:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 15:48	1

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-21A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-9

Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 15:48	1
4-Bromofluorobenzene (Surr)	104		72 - 124		05/09/18 15:48	1
Dibromofluoromethane	90		75 - 120		05/09/18 15:48	1
Toluene-d8 (Surr)	93		75 - 120		05/09/18 15:48	1

Client Sample ID: B-1

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-10

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 16:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 16:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 16:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 16:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 16:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 16:14	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 16:14	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 16:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 16:14	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 16:14	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 16:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 16:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 16:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 16:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 16:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 16:14	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 16:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 16:14	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 16:14	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 16:14	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 16:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 16:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 16:14	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 16:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 16:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 16:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 16:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 16:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 16:14	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 16:14	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-1

Lab Sample ID: 500-144531-10

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 16:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 16:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 16:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 16:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 16:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 16:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:14	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 16:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 16:14	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 16:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 16:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 16:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 16:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 16:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 16:14	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 16:14	1
4-Bromofluorobenzene (Surr)	101		72 - 124		05/09/18 16:14	1
Dibromofluoromethane	90		75 - 120		05/09/18 16:14	1
Toluene-d8 (Surr)	94		75 - 120		05/09/18 16:14	1

Client Sample ID: B-1A

Lab Sample ID: 500-144531-11

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 16:40	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 16:40	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 16:40	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 16:40	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 16:40	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 16:40	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 16:40	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 16:40	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 16:40	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 16:40	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 16:40	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 16:40	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-1A
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-11
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 16:40	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:40	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 16:40	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 16:40	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 16:40	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 16:40	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 16:40	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 16:40	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 16:40	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 16:40	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 16:40	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 16:40	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 16:40	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 16:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 16:40	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 16:40	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 16:40	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 16:40	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 16:40	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 16:40	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 16:40	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 16:40	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 16:40	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 16:40	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 16:40	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:40	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 16:40	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 16:40	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 16:40	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 16:40	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 16:40	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 16:40	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 16:40	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 16:40	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 16:40	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 126		05/09/18 16:40	1
4-Bromofluorobenzene (Surr)	104		72 - 124		05/09/18 16:40	1
Dibromofluoromethane	91		75 - 120		05/09/18 16:40	1
Toluene-d8 (Surr)	93		75 - 120		05/09/18 16:40	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-1B
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-12
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 17:06	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 17:06	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 17:06	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 17:06	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 17:06	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 17:06	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 17:06	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 17:06	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 17:06	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 17:06	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 17:06	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 17:06	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 17:06	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:06	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 17:06	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 17:06	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 17:06	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 17:06	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:06	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 17:06	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 17:06	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 17:06	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 17:06	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 17:06	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 17:06	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 17:06	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 17:06	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 17:06	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 17:06	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 17:06	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 17:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 17:06	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 17:06	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 17:06	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 17:06	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 17:06	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 17:06	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-1B

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-12

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:06	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 17:06	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:06	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 17:06	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 17:06	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 17:06	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 17:06	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 17:06	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:06	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 17:06	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					05/09/18 17:06	1
4-Bromofluorobenzene (Surr)	101		72 - 124					05/09/18 17:06	1
Dibromofluoromethane	91		75 - 120					05/09/18 17:06	1
Toluene-d8 (Surr)	93		75 - 120					05/09/18 17:06	1

Client Sample ID: B-3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-13

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 04:33	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 04:33	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 04:33	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 04:33	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 04:33	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 04:33	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 04:33	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 04:33	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 04:33	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 04:33	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 04:33	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 04:33	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 04:33	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:33	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 04:33	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 04:33	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 04:33	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 04:33	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:33	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-13

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 04:33	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 04:33	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 04:33	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 04:33	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 04:33	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 04:33	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 04:33	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 04:33	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 04:33	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 04:33	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 04:33	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 04:33	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 04:33	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 04:33	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 04:33	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 04:33	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 04:33	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 04:33	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:33	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 04:33	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:33	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 04:33	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 04:33	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 04:33	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 04:33	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 04:33	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:33	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 04:33	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 04:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		05/10/18 04:33	1
4-Bromofluorobenzene (Surr)	109		72 - 124		05/10/18 04:33	1
Dibromofluoromethane	93		75 - 120		05/10/18 04:33	1
Toluene-d8 (Surr)	93		75 - 120		05/10/18 04:33	1

Client Sample ID: B-3A

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-14

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 04:59	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 04:59	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 04:59	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-3A
Date Collected: 04/27/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-14
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 04:59	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 04:59	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 04:59	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 04:59	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 04:59	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 04:59	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 04:59	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 04:59	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 04:59	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 04:59	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:59	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 04:59	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 04:59	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 04:59	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 04:59	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:59	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 04:59	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 04:59	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 04:59	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 04:59	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 04:59	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 04:59	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 04:59	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 04:59	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 04:59	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 04:59	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 04:59	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 04:59	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 04:59	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 04:59	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 04:59	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 04:59	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 04:59	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 04:59	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:59	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 04:59	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 04:59	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-3A
Date Collected: 04/27/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-14
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.71	J	1.0	0.37	ug/L			05/10/18 04:59	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 04:59	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 04:59	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 04:59	1
Trichloroethene	0.25	J	0.50	0.16	ug/L			05/10/18 04:59	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 04:59	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 04:59	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 04:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126					05/10/18 04:59	1
4-Bromofluorobenzene (Surr)	105		72 - 124					05/10/18 04:59	1
Dibromofluoromethane	93		75 - 120					05/10/18 04:59	1
Toluene-d8 (Surr)	93		75 - 120					05/10/18 04:59	1

Client Sample ID: B-10
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-15
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 17:32	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 17:32	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 17:32	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 17:32	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 17:32	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 17:32	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 17:32	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 17:32	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 17:32	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 17:32	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 17:32	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 17:32	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 17:32	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:32	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 17:32	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 17:32	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 17:32	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 17:32	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:32	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 17:32	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 17:32	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 17:32	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-10
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-15
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 17:32	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 17:32	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 17:32	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 17:32	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 17:32	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 17:32	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 17:32	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 17:32	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 17:32	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 17:32	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 17:32	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 17:32	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 17:32	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 17:32	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 17:32	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:32	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 17:32	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:32	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 17:32	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 17:32	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 17:32	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 17:32	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 17:32	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:32	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 17:32	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 126		05/09/18 17:32	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 17:32	1
Dibromofluoromethane	93		75 - 120		05/09/18 17:32	1
Toluene-d8 (Surr)	92		75 - 120		05/09/18 17:32	1

Client Sample ID: B-11
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-16
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 17:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 17:57	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 17:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 17:57	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 17:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-11

Lab Sample ID: 500-144531-16

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 17:57	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 17:57	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 17:57	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 17:57	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 17:57	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 17:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 17:57	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 17:57	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:57	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 17:57	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 17:57	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 17:57	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 17:57	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:57	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 17:57	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 17:57	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 17:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 17:57	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 17:57	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 17:57	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 17:57	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 17:57	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 17:57	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 17:57	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 17:57	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 17:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 17:57	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 17:57	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 17:57	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 17:57	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 17:57	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 17:57	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:57	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 17:57	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 17:57	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 17:57	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 17:57	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 17:57	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-11

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-16

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 17:57	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 17:57	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 17:57	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 17:57	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 17:57	1
4-Bromofluorobenzene (Surr)	104		72 - 124		05/09/18 17:57	1
Dibromofluoromethane	91		75 - 120		05/09/18 17:57	1
Toluene-d8 (Surr)	92		75 - 120		05/09/18 17:57	1

Client Sample ID: B-12

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-17

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 18:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 18:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 18:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 18:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 18:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 18:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 18:23	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 18:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 18:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 18:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 18:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 18:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 18:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 18:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 18:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 18:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 18:23	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 18:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 18:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 18:23	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 18:23	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 18:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 18:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 18:23	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-12

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-17

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 18:23	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 18:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 18:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 18:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 18:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 18:23	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 18:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 18:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 18:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 18:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 18:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 18:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 18:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 18:23	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 18:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 18:23	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 18:23	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 18:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 18:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 18:23	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 18:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 18:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 18:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		05/09/18 18:23	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 18:23	1
Dibromofluoromethane	93		75 - 120		05/09/18 18:23	1
Toluene-d8 (Surr)	91		75 - 120		05/09/18 18:23	1

Client Sample ID: B-13

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-18

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 05:24	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 05:24	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 05:24	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 05:24	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 05:24	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 05:24	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 05:24	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 05:24	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13

Lab Sample ID: 500-144531-18

Date Collected: 04/27/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 05:24	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 05:24	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 05:24	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 05:24	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 05:24	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 05:24	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 05:24	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 05:24	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 05:24	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 05:24	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 05:24	1
Bromodichloromethane	0.87	J	1.0	0.37	ug/L			05/10/18 05:24	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 05:24	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 05:24	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 05:24	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 05:24	1
Chloroform	7.4		2.0	0.37	ug/L			05/10/18 05:24	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 05:24	1
cis-1,2-Dichloroethene	29		1.0	0.41	ug/L			05/10/18 05:24	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 05:24	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 05:24	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 05:24	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 05:24	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 05:24	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 05:24	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 05:24	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 05:24	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 05:24	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 05:24	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 05:24	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 05:24	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 05:24	1
Tetrachloroethene	35		1.0	0.37	ug/L			05/10/18 05:24	1
Toluene	0.25	J	0.50	0.15	ug/L			05/10/18 05:24	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 05:24	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 05:24	1
Trichloroethene	15		0.50	0.16	ug/L			05/10/18 05:24	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 05:24	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-18

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 05:24	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 05:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					05/10/18 05:24	1
4-Bromofluorobenzene (Surr)	106		72 - 124					05/10/18 05:24	1
Dibromofluoromethane	95		75 - 120					05/10/18 05:24	1
Toluene-d8 (Surr)	93		75 - 120					05/10/18 05:24	1

Client Sample ID: B-13A

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-19

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 15:39	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 15:39	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 15:39	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 15:39	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 15:39	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 15:39	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 15:39	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 15:39	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 15:39	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 15:39	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 15:39	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 15:39	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 15:39	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 15:39	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 15:39	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 15:39	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 15:39	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 15:39	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 15:39	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 15:39	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 15:39	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 15:39	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 15:39	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 15:39	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 15:39	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 15:39	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 15:39	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13A
Date Collected: 04/27/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-19
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 15:39	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 15:39	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 15:39	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 15:39	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 15:39	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 15:39	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 15:39	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 15:39	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 15:39	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 15:39	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 15:39	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 15:39	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 15:39	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 15:39	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 15:39	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 15:39	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 15:39	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 15:39	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 15:39	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 15:39	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		75 - 126		05/10/18 15:39	1
4-Bromofluorobenzene (Surr)	108		72 - 124		05/10/18 15:39	1
Dibromofluoromethane	97		75 - 120		05/10/18 15:39	1
Toluene-d8 (Surr)	99		75 - 120		05/10/18 15:39	1

Client Sample ID: B-13B
Date Collected: 04/27/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-20
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 16:09	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 16:09	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 16:09	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 16:09	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 16:09	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 16:09	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 16:09	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 16:09	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 16:09	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 16:09	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13B

Lab Sample ID: 500-144531-20

Date Collected: 04/27/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 16:09	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 16:09	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 16:09	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 16:09	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 16:09	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 16:09	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 16:09	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 16:09	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 16:09	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 16:09	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 16:09	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 16:09	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 16:09	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 16:09	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 16:09	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 16:09	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 16:09	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 16:09	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 16:09	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 16:09	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 16:09	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 16:09	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 16:09	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 16:09	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 16:09	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 16:09	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 16:09	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 16:09	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 16:09	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 16:09	1
Tetrachloroethene	1.3		1.0	0.37	ug/L			05/10/18 16:09	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 16:09	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 16:09	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 16:09	1
Trichloroethene	0.43 J		0.50	0.16	ug/L			05/10/18 16:09	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 16:09	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 16:09	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 16:09	1

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13B
Date Collected: 04/27/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-20
Matrix: Ground Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		75 - 126		05/10/18 16:09	1
4-Bromofluorobenzene (Surr)	108		72 - 124		05/10/18 16:09	1
Dibromofluoromethane	97		75 - 120		05/10/18 16:09	1
Toluene-d8 (Surr)	98		75 - 120		05/10/18 16:09	1

Client Sample ID: MW-18A
Date Collected: 04/26/18 00:00
Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-21
Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 02:26	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 02:26	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 02:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 02:26	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 02:26	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 02:26	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 02:26	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 02:26	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 02:26	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 02:26	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 02:26	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 02:26	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 02:26	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:26	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 02:26	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 02:26	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 02:26	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 02:26	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 02:26	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 02:26	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 02:26	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 02:26	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 02:26	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 02:26	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 02:26	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 02:26	1
cis-1,2-Dichloroethene	0.60 J		1.0	0.41	ug/L			05/10/18 02:26	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 02:26	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 02:26	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 02:26	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 02:26	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-18A

Lab Sample ID: 500-144531-21

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 02:26	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 02:26	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 02:26	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 02:26	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 02:26	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 02:26	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:26	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 02:26	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:26	1
Tetrachloroethene	0.98	J	1.0	0.37	ug/L			05/10/18 02:26	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 02:26	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 02:26	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 02:26	1
Trichloroethene	1.0		0.50	0.16	ug/L			05/10/18 02:26	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 02:26	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 02:26	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126		05/10/18 02:26	1
4-Bromofluorobenzene (Surr)	106		72 - 124		05/10/18 02:26	1
Dibromofluoromethane	95		75 - 120		05/10/18 02:26	1
Toluene-d8 (Surr)	91		75 - 120		05/10/18 02:26	1

Client Sample ID: MW-19A

Lab Sample ID: 500-144531-22

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 02:51	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 02:51	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 02:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 02:51	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 02:51	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 02:51	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 02:51	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 02:51	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 02:51	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 02:51	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 02:51	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 02:51	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-19A

Lab Sample ID: 500-144531-22

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 02:51	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:51	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 02:51	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 02:51	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 02:51	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 02:51	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 02:51	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 02:51	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 02:51	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 02:51	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 02:51	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 02:51	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 02:51	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 02:51	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 02:51	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 02:51	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 02:51	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 02:51	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 02:51	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 02:51	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 02:51	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 02:51	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 02:51	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 02:51	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 02:51	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:51	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 02:51	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 02:51	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 02:51	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 02:51	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 02:51	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 02:51	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 02:51	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 02:51	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 02:51	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		05/10/18 02:51	1
4-Bromofluorobenzene (Surr)	108		72 - 124		05/10/18 02:51	1
Dibromofluoromethane	93		75 - 120		05/10/18 02:51	1
Toluene-d8 (Surr)	92		75 - 120		05/10/18 02:51	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Discharge Pipe

Lab Sample ID: 500-144531-23

Date Collected: 04/26/18 00:00

Matrix: Ground Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 03:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 03:17	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 03:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 03:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 03:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 03:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 03:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 03:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 03:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 03:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 03:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 03:17	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 03:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 03:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 03:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 03:17	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 03:17	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 03:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 03:17	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 03:17	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 03:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 03:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 03:17	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 03:17	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 03:17	1
cis-1,2-Dichloroethene	1.7		1.0	0.41	ug/L			05/10/18 03:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 03:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 03:17	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 03:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 03:17	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 03:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 03:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 03:17	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 03:17	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 03:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 03:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Discharge Pipe

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-23

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:17	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 03:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 03:17	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 03:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 03:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 03:17	1
Trichloroethene	1.0		0.50	0.16	ug/L			05/10/18 03:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 03:17	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 03:17	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 03:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 126					05/10/18 03:17	1
4-Bromofluorobenzene (Surr)	106		72 - 124					05/10/18 03:17	1
Dibromofluoromethane	95		75 - 120					05/10/18 03:17	1
Toluene-d8 (Surr)	92		75 - 120					05/10/18 03:17	1

Client Sample ID: B-1 Dup

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-24

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 03:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 03:42	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 03:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 03:42	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 03:42	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 03:42	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 03:42	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 03:42	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 03:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 03:42	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 03:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 03:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 03:42	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:42	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 03:42	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 03:42	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 03:42	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 03:42	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 03:42	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-1 Dup

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-24

Matrix: Ground Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 03:42	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 03:42	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 03:42	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 03:42	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 03:42	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 03:42	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 03:42	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 03:42	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 03:42	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 03:42	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 03:42	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 03:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 03:42	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 03:42	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 03:42	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 03:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 03:42	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 03:42	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:42	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 03:42	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 03:42	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 03:42	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 03:42	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 03:42	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 03:42	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 03:42	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 03:42	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 03:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 03:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/10/18 03:42	1
4-Bromofluorobenzene (Surr)	107		72 - 124		05/10/18 03:42	1
Dibromofluoromethane	95		75 - 120		05/10/18 03:42	1
Toluene-d8 (Surr)	89		75 - 120		05/10/18 03:42	1

Client Sample ID: Trip Blank

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-25

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 23:52	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 23:52	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 23:52	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-144531-25

Date Collected: 04/26/18 00:00

Matrix: Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 23:52	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 23:52	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 23:52	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 23:52	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 23:52	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 23:52	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 23:52	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 23:52	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 23:52	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 23:52	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 23:52	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 23:52	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 23:52	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 23:52	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 23:52	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 23:52	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 23:52	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 23:52	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 23:52	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 23:52	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 23:52	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 23:52	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 23:52	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 23:52	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 23:52	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 23:52	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 23:52	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 23:52	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 23:52	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 23:52	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 23:52	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 23:52	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 23:52	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 23:52	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 23:52	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 23:52	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 23:52	1

TestAmerica Chicago

Client Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-144531-25

Date Collected: 04/26/18 00:00

Matrix: Water

Date Received: 04/28/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 23:52	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 23:52	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 23:52	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 23:52	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 23:52	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 23:52	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 23:52	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		05/09/18 23:52	1
4-Bromofluorobenzene (Surr)	108		72 - 124		05/09/18 23:52	1
Dibromofluoromethane	92		75 - 120		05/09/18 23:52	1
Toluene-d8 (Surr)	95		75 - 120		05/09/18 23:52	1

Definitions/Glossary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

QC Association Summary

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

GC/MS VOA

Analysis Batch: 431313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144531-1	EXW-4	Total/NA	Ground Water	8260B	
500-144531-2	EXW-6	Total/NA	Ground Water	8260B	
500-144531-4	MW-17	Total/NA	Ground Water	8260B	
500-144531-5	MW-18	Total/NA	Ground Water	8260B	
500-144531-6	MW-19	Total/NA	Ground Water	8260B	
500-144531-7	MW-20	Total/NA	Ground Water	8260B	
500-144531-8	MW-21	Total/NA	Ground Water	8260B	
500-144531-9	MW-21A	Total/NA	Ground Water	8260B	
500-144531-10	B-1	Total/NA	Ground Water	8260B	
500-144531-11	B-1A	Total/NA	Ground Water	8260B	
500-144531-12	B-1B	Total/NA	Ground Water	8260B	
500-144531-15	B-10	Total/NA	Ground Water	8260B	
500-144531-16	B-11	Total/NA	Ground Water	8260B	
500-144531-17	B-12	Total/NA	Ground Water	8260B	
MB 500-431313/6	Method Blank	Total/NA	Water	8260B	
LCS 500-431313/4	Lab Control Sample	Total/NA	Water	8260B	
500-144531-17 MS	B-12	Total/NA	Ground Water	8260B	
500-144531-17 MSD	B-12	Total/NA	Ground Water	8260B	

Analysis Batch: 431375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144531-3	Muni #3	Total/NA	Ground Water	8260B	
500-144531-13	B-3	Total/NA	Ground Water	8260B	
500-144531-14	B-3A	Total/NA	Ground Water	8260B	
500-144531-18	B-13	Total/NA	Ground Water	8260B	
500-144531-21	MW-18A	Total/NA	Ground Water	8260B	
500-144531-22	MW-19A	Total/NA	Ground Water	8260B	
500-144531-23	Discharge Pipe	Total/NA	Ground Water	8260B	
500-144531-24	B-1 Dup	Total/NA	Ground Water	8260B	
500-144531-25	Trip Blank	Total/NA	Water	8260B	
MB 500-431375/6	Method Blank	Total/NA	Water	8260B	
LCS 500-431375/30	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 431527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144531-19	B-13A	Total/NA	Ground Water	8260B	
500-144531-20	B-13B	Total/NA	Ground Water	8260B	
MB 500-431527/6	Method Blank	Total/NA	Water	8260B	
LCS 500-431527/4	Lab Control Sample	Total/NA	Water	8260B	

Surrogate Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-144531-1	EXW-4	105	100	92	93
500-144531-2	EXW-6	101	100	92	95
500-144531-3	Muni #3	100	107	95	92
500-144531-4	MW-17	100	102	92	93
500-144531-5	MW-18	101	102	95	91
500-144531-6	MW-19	106	102	97	91
500-144531-7	MW-20	102	103	91	92
500-144531-8	MW-21	102	101	92	92
500-144531-9	MW-21A	101	104	90	93
500-144531-10	B-1	101	101	90	94
500-144531-11	B-1A	103	104	91	93
500-144531-12	B-1B	102	101	91	93
500-144531-13	B-3	97	109	93	93
500-144531-14	B-3A	100	105	93	93
500-144531-15	B-10	103	102	93	92
500-144531-16	B-11	101	104	91	92
500-144531-17	B-12	102	102	93	91
500-144531-17 MS	B-12	100	92	94	95
500-144531-17 MSD	B-12	100	95	95	97
500-144531-18	B-13	102	106	95	93
500-144531-19	B-13A	82	108	97	99
500-144531-20	B-13B	84	108	97	98
500-144531-21	MW-18A	102	106	95	91
500-144531-22	MW-19A	99	108	93	92
500-144531-23	Discharge Pipe	105	106	95	92
500-144531-24	B-1 Dup	101	107	95	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-144531-25	Trip Blank	97	108	92	95
LCS 500-431313/4	Lab Control Sample	99	92	94	99
LCS 500-431375/30	Lab Control Sample	96	92	94	94
LCS 500-431527/4	Lab Control Sample	77	102	90	100
MB 500-431313/6	Method Blank	99	102	91	93
MB 500-431375/6	Method Blank	101	103	93	92
MB 500-431527/6	Method Blank	85	104	96	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

TestAmerica Chicago

Surrogate Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

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QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-431313/6

Matrix: Water

Analysis Batch: 431313

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 09:42	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 09:42	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 09:42	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 09:42	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 09:42	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 09:42	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 09:42	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 09:42	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 09:42	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 09:42	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 09:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 09:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 09:42	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 09:42	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 09:42	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 09:42	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 09:42	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 09:42	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 09:42	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 09:42	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 09:42	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 09:42	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 09:42	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 09:42	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 09:42	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 09:42	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 09:42	1
cis-1,3-Dichloropropane	<0.42		1.0	0.42	ug/L			05/09/18 09:42	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 09:42	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 09:42	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 09:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 09:42	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 09:42	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 09:42	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 09:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 09:42	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 09:42	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-431313/6
Matrix: Water
Analysis Batch: 431313

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 09:42	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 09:42	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 09:42	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 09:42	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 09:42	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 09:42	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 09:42	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 09:42	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 09:42	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 09:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 09:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		05/09/18 09:42	1
4-Bromofluorobenzene (Surr)	102		72 - 124		05/09/18 09:42	1
Dibromofluoromethane	91		75 - 120		05/09/18 09:42	1
Toluene-d8 (Surr)	93		75 - 120		05/09/18 09:42	1

Lab Sample ID: LCS 500-431313/4
Matrix: Water
Analysis Batch: 431313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	53.0		ug/L		106	70 - 125
1,1,1-Trichloroethane	50.0	44.5		ug/L		89	70 - 125
1,1,1,2-Tetrachloroethane	50.0	53.4		ug/L		107	67 - 127
1,1,1,2-Trichloroethane	50.0	55.9		ug/L		112	70 - 122
1,1-Dichloroethane	50.0	50.3		ug/L		101	70 - 125
1,1-Dichloroethene	50.0	45.6		ug/L		91	67 - 122
1,1-Dichloropropene	50.0	51.8		ug/L		104	70 - 121
1,2,3-Trichlorobenzene	50.0	59.9		ug/L		120	55 - 140
1,2,3-Trichloropropane	50.0	53.2		ug/L		106	50 - 133
1,2,4-Trichlorobenzene	50.0	58.3		ug/L		117	66 - 127
1,2,4-Trimethylbenzene	50.0	47.4		ug/L		95	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	51.1		ug/L		102	56 - 123
1,2-Dibromoethane	50.0	55.2		ug/L		110	70 - 125
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	70 - 125
1,2-Dichloroethane	50.0	56.0		ug/L		112	68 - 127
1,2-Dichloropropane	50.0	56.4		ug/L		113	67 - 130
1,3,5-Trimethylbenzene	50.0	47.5		ug/L		95	70 - 123
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	70 - 125
1,3-Dichloropropane	50.0	55.6		ug/L		111	62 - 136
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 120
2,2-Dichloropropane	50.0	37.5		ug/L		75	58 - 129
2-Chlorotoluene	50.0	45.9		ug/L		92	70 - 125
4-Chlorotoluene	50.0	45.6		ug/L		91	68 - 124
Benzene	50.0	48.0		ug/L		96	70 - 120

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-431313/4
Matrix: Water
Analysis Batch: 431313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	50.4		ug/L		101	70 - 122
Bromochloromethane	50.0	51.7		ug/L		103	65 - 122
Bromodichloromethane	50.0	51.5		ug/L		103	69 - 120
Bromoform	50.0	56.9		ug/L		114	56 - 132
Bromomethane	50.0	39.0		ug/L		78	40 - 130
Carbon tetrachloride	50.0	46.9		ug/L		94	65 - 122
Chlorobenzene	50.0	49.7		ug/L		99	70 - 120
Chloroethane	50.0	47.7		ug/L		95	45 - 127
Chloroform	50.0	44.9		ug/L		90	70 - 120
Chloromethane	50.0	62.0		ug/L		124	54 - 147
cis-1,2-Dichloroethene	50.0	45.9		ug/L		92	70 - 125
cis-1,3-Dichloropropene	50.0	55.6		ug/L		111	64 - 127
Dibromochloromethane	50.0	58.1		ug/L		116	68 - 125
Dibromomethane	50.0	53.8		ug/L		108	70 - 120
Dichlorodifluoromethane	50.0	59.6		ug/L		119	40 - 150
Ethylbenzene	50.0	46.9		ug/L		94	70 - 120
Hexachlorobutadiene	50.0	53.2		ug/L		106	51 - 150
Isopropylbenzene	50.0	48.0		ug/L		96	70 - 126
Methyl tert-butyl ether	50.0	48.7		ug/L		97	70 - 120
Methylene Chloride	50.0	42.1		ug/L		84	69 - 125
Naphthalene	50.0	61.2		ug/L		122	59 - 130
n-Butylbenzene	50.0	48.5		ug/L		97	68 - 125
N-Propylbenzene	50.0	47.5		ug/L		95	69 - 127
p-Isopropyltoluene	50.0	50.5		ug/L		101	70 - 125
sec-Butylbenzene	50.0	47.8		ug/L		96	70 - 123
Styrene	50.0	48.9		ug/L		98	70 - 120
tert-Butylbenzene	50.0	49.1		ug/L		98	70 - 121
Tetrachloroethene	50.0	56.9		ug/L		114	70 - 128
Toluene	50.0	52.5		ug/L		105	70 - 125
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 125
trans-1,3-Dichloropropene	50.0	54.0		ug/L		108	62 - 128
Trichloroethene	50.0	56.3		ug/L		113	70 - 125
Trichlorofluoromethane	50.0	45.0		ug/L		90	70 - 126
Vinyl chloride	50.0	53.8		ug/L		108	64 - 126
Xylenes, Total	100	93.7		ug/L		94	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		75 - 126
4-Bromofluorobenzene (Surr)	92		72 - 124
Dibromofluoromethane	94		75 - 120
Toluene-d8 (Surr)	99		75 - 120

Lab Sample ID: 500-144531-17 MS
Matrix: Ground Water
Analysis Batch: 431313

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<0.46		50.0	49.4		ug/L		99	70 - 125

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144531-17 MS
Matrix: Ground Water
Analysis Batch: 431313

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	<0.38		50.0	40.1		ug/L		80	70 - 125
1,1,1,2-Tetrachloroethane	<0.40		50.0	51.0		ug/L		102	67 - 127
1,1,2-Trichloroethane	<0.35		50.0	51.6		ug/L		103	70 - 122
1,1-Dichloroethane	<0.41		50.0	46.8		ug/L		94	70 - 125
1,1-Dichloroethene	<0.39		50.0	42.1		ug/L		84	67 - 122
1,1-Dichloropropene	<0.30		50.0	46.2		ug/L		92	70 - 121
1,2,3-Trichlorobenzene	<0.46		50.0	58.3		ug/L		117	55 - 140
1,2,3-Trichloropropane	<0.41		50.0	51.0		ug/L		102	50 - 133
1,2,4-Trichlorobenzene	<0.34		50.0	52.9		ug/L		106	66 - 127
1,2,4-Trimethylbenzene	<0.36		50.0	44.5		ug/L		89	70 - 123
1,2-Dibromo-3-Chloropropane	<2.0		50.0	49.2		ug/L		98	56 - 123
1,2-Dibromoethane	<0.39		50.0	50.4		ug/L		101	70 - 125
1,2-Dichlorobenzene	<0.33		50.0	50.3		ug/L		101	70 - 125
1,2-Dichloroethane	<0.39		50.0	51.7		ug/L		103	68 - 127
1,2-Dichloropropane	<0.43		50.0	52.8		ug/L		106	67 - 130
1,3,5-Trimethylbenzene	<0.25		50.0	44.0		ug/L		88	70 - 123
1,3-Dichlorobenzene	<0.40		50.0	47.2		ug/L		94	70 - 125
1,3-Dichloropropane	<0.36		50.0	50.8		ug/L		102	62 - 136
1,4-Dichlorobenzene	<0.36		50.0	47.6		ug/L		95	70 - 120
2,2-Dichloropropane	<0.44		50.0	31.8		ug/L		64	58 - 129
2-Chlorotoluene	<0.31		50.0	43.2		ug/L		86	70 - 125
4-Chlorotoluene	<0.35		50.0	42.5		ug/L		85	68 - 124
Benzene	<0.15		50.0	45.3		ug/L		91	70 - 120
Bromobenzene	<0.36		50.0	49.2		ug/L		98	70 - 122
Bromochloromethane	<0.43		50.0	50.2		ug/L		100	65 - 122
Bromodichloromethane	<0.37		50.0	47.4		ug/L		95	69 - 120
Bromoform	<0.48		50.0	52.9		ug/L		106	56 - 132
Bromomethane	<0.80		50.0	36.3		ug/L		73	40 - 130
Carbon tetrachloride	<0.38		50.0	42.6		ug/L		85	65 - 122
Chlorobenzene	<0.39		50.0	45.9		ug/L		92	70 - 120
Chloroethane	<0.51		50.0	44.1		ug/L		88	45 - 127
Chloroform	<0.37		50.0	42.5		ug/L		85	70 - 120
Chloromethane	<0.32		50.0	59.9		ug/L		120	54 - 147
cis-1,2-Dichloroethene	<0.41		50.0	45.0		ug/L		90	70 - 125
cis-1,3-Dichloropropene	<0.42		50.0	49.5		ug/L		99	64 - 127
Dibromochloromethane	<0.49		50.0	52.4		ug/L		105	68 - 125
Dibromomethane	<0.27		50.0	50.0		ug/L		100	70 - 120
Dichlorodifluoromethane	<0.67		50.0	54.2		ug/L		108	40 - 150
Ethylbenzene	<0.18		50.0	42.2		ug/L		84	70 - 120
Hexachlorobutadiene	<0.45		50.0	49.1		ug/L		98	51 - 150
Isopropylbenzene	<0.39		50.0	44.0		ug/L		88	70 - 126
Methyl tert-butyl ether	<0.39		50.0	47.3		ug/L		95	70 - 120
Methylene Chloride	<1.6		50.0	41.5		ug/L		83	69 - 125
Naphthalene	<0.34		50.0	60.2		ug/L		120	59 - 130
n-Butylbenzene	<0.39		50.0	43.7		ug/L		87	68 - 125
N-Propylbenzene	<0.41		50.0	43.2		ug/L		86	69 - 127
p-Isopropyltoluene	<0.36		50.0	46.8		ug/L		94	70 - 125
sec-Butylbenzene	<0.40		50.0	44.2		ug/L		88	70 - 123

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144531-17 MS
Matrix: Ground Water
Analysis Batch: 431313

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	<0.39		50.0	44.4		ug/L		89	70 - 120
tert-Butylbenzene	<0.40		50.0	45.8		ug/L		92	70 - 121
Tetrachloroethene	<0.37		50.0	49.8		ug/L		100	70 - 128
Toluene	<0.15		50.0	46.8		ug/L		94	70 - 125
trans-1,2-Dichloroethene	<0.35		50.0	42.2		ug/L		84	70 - 125
trans-1,3-Dichloropropene	<0.36		50.0	48.0		ug/L		96	62 - 128
Trichloroethene	<0.16		50.0	50.9		ug/L		102	70 - 125
Trichlorofluoromethane	<0.43		50.0	40.6		ug/L		81	70 - 126
Vinyl chloride	<0.20		50.0	49.0		ug/L		98	64 - 126
Xylenes, Total	<0.22		100	84.6		ug/L		85	70 - 125
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
1,2-Dichloroethane-d4 (Surr)	100		75 - 126						
4-Bromofluorobenzene (Surr)	92		72 - 124						
Dibromofluoromethane	94		75 - 120						
Toluene-d8 (Surr)	95		75 - 120						

Lab Sample ID: 500-144531-17 MSD
Matrix: Ground Water
Analysis Batch: 431313

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<0.46		50.0	51.5		ug/L		103	70 - 125	4	20
1,1,1-Trichloroethane	<0.38		50.0	42.3		ug/L		85	70 - 125	5	20
1,1,1,2,2-Tetrachloroethane	<0.40		50.0	54.4		ug/L		109	67 - 127	7	20
1,1,1,2-Trichloroethane	<0.35		50.0	55.9		ug/L		112	70 - 122	8	20
1,1-Dichloroethane	<0.41		50.0	49.3		ug/L		99	70 - 125	5	20
1,1-Dichloroethene	<0.39		50.0	42.5		ug/L		85	67 - 122	1	20
1,1-Dichloropropene	<0.30		50.0	48.4		ug/L		97	70 - 121	5	20
1,2,3-Trichlorobenzene	<0.46		50.0	59.0		ug/L		118	55 - 140	1	20
1,2,3-Trichloropropane	<0.41		50.0	53.9		ug/L		108	50 - 133	5	20
1,2,4-Trichlorobenzene	<0.34		50.0	52.7		ug/L		105	66 - 127	0	20
1,2,4-Trimethylbenzene	<0.36		50.0	46.2		ug/L		92	70 - 123	4	20
1,2-Dibromo-3-Chloropropane	<2.0		50.0	55.0		ug/L		110	56 - 123	11	20
1,2-Dibromoethane	<0.39		50.0	53.7		ug/L		107	70 - 125	6	20
1,2-Dichlorobenzene	<0.33		50.0	51.7		ug/L		103	70 - 125	3	20
1,2-Dichloroethane	<0.39		50.0	55.0		ug/L		110	68 - 127	6	20
1,2-Dichloropropane	<0.43		50.0	57.4		ug/L		115	67 - 130	8	20
1,3,5-Trimethylbenzene	<0.25		50.0	45.5		ug/L		91	70 - 123	3	20
1,3-Dichlorobenzene	<0.40		50.0	48.5		ug/L		97	70 - 125	3	20
1,3-Dichloropropane	<0.36		50.0	55.1		ug/L		110	62 - 136	8	20
1,4-Dichlorobenzene	<0.36		50.0	48.6		ug/L		97	70 - 120	2	20
2,2-Dichloropropane	<0.44		50.0	34.3		ug/L		69	58 - 129	8	20
2-Chlorotoluene	<0.31		50.0	45.2		ug/L		90	70 - 125	5	20
4-Chlorotoluene	<0.35		50.0	44.7		ug/L		89	68 - 124	5	20
Benzene	<0.15		50.0	47.9		ug/L		96	70 - 120	6	20
Bromobenzene	<0.36		50.0	52.8		ug/L		106	70 - 122	7	20
Bromochloromethane	<0.43		50.0	54.2		ug/L		108	65 - 122	8	20

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QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144531-17 MSD
Matrix: Ground Water
Analysis Batch: 431313

Client Sample ID: B-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	<0.37		50.0	51.6		ug/L		103	69 - 120	8	20
Bromoform	<0.48		50.0	56.4		ug/L		113	56 - 132	6	20
Bromomethane	<0.80		50.0	36.1		ug/L		72	40 - 130	1	20
Carbon tetrachloride	<0.38		50.0	44.0		ug/L		88	65 - 122	3	20
Chlorobenzene	<0.39		50.0	48.0		ug/L		96	70 - 120	4	20
Chloroethane	<0.51		50.0	44.1		ug/L		88	45 - 127	0	20
Chloroform	<0.37		50.0	44.8		ug/L		90	70 - 120	5	20
Chloromethane	<0.32		50.0	57.2		ug/L		114	54 - 147	5	20
cis-1,2-Dichloroethene	<0.41		50.0	46.3		ug/L		93	70 - 125	3	20
cis-1,3-Dichloropropene	<0.42		50.0	53.6		ug/L		107	64 - 127	8	20
Dibromochloromethane	<0.49		50.0	56.9		ug/L		114	68 - 125	8	20
Dibromomethane	<0.27		50.0	53.8		ug/L		108	70 - 120	7	20
Dichlorodifluoromethane	<0.67		50.0	53.0		ug/L		106	40 - 150	2	20
Ethylbenzene	<0.18		50.0	44.5		ug/L		89	70 - 120	5	20
Hexachlorobutadiene	<0.45		50.0	48.9		ug/L		98	51 - 150	0	20
Isopropylbenzene	<0.39		50.0	46.3		ug/L		93	70 - 126	5	20
Methyl tert-butyl ether	<0.39		50.0	48.6		ug/L		97	70 - 120	3	20
Methylene Chloride	<1.6		50.0	42.5		ug/L		85	69 - 125	2	20
Naphthalene	<0.34		50.0	62.5		ug/L		125	59 - 130	4	20
n-Butylbenzene	<0.39		50.0	43.5		ug/L		87	68 - 125	1	20
N-Propylbenzene	<0.41		50.0	45.3		ug/L		91	69 - 127	5	20
p-Isopropyltoluene	<0.36		50.0	47.4		ug/L		95	70 - 125	1	20
sec-Butylbenzene	<0.40		50.0	45.4		ug/L		91	70 - 123	3	20
Styrene	<0.39		50.0	46.7		ug/L		93	70 - 120	5	20
tert-Butylbenzene	<0.40		50.0	48.2		ug/L		96	70 - 121	5	20
Tetrachloroethene	<0.37		50.0	51.6		ug/L		103	70 - 128	4	20
Toluene	<0.15		50.0	49.5		ug/L		99	70 - 125	6	20
trans-1,2-Dichloroethene	<0.35		50.0	42.8		ug/L		86	70 - 125	1	20
trans-1,3-Dichloropropene	<0.36		50.0	52.5		ug/L		105	62 - 128	9	20
Trichloroethene	<0.16		50.0	53.8		ug/L		108	70 - 125	5	20
Trichlorofluoromethane	<0.43		50.0	40.7		ug/L		81	70 - 126	0	20
Vinyl chloride	<0.20		50.0	48.5		ug/L		97	64 - 126	1	20
Xylenes, Total	<0.22		100	88.1		ug/L		88	70 - 125	4	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 126
4-Bromofluorobenzene (Surr)	95		72 - 124
Dibromofluoromethane	95		75 - 120
Toluene-d8 (Surr)	97		75 - 120

Lab Sample ID: MB 500-431375/6
Matrix: Water
Analysis Batch: 431375

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/09/18 22:35	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/09/18 22:35	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/09/18 22:35	1

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QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-431375/6
Matrix: Water
Analysis Batch: 431375

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/09/18 22:35	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/09/18 22:35	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/09/18 22:35	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/09/18 22:35	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/09/18 22:35	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/09/18 22:35	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/09/18 22:35	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/09/18 22:35	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/09/18 22:35	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/09/18 22:35	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/09/18 22:35	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/09/18 22:35	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/09/18 22:35	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/09/18 22:35	1
Benzene	<0.15		0.50	0.15	ug/L			05/09/18 22:35	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/09/18 22:35	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/09/18 22:35	1
Bromoform	<0.48		1.0	0.48	ug/L			05/09/18 22:35	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/09/18 22:35	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/09/18 22:35	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/09/18 22:35	1
Chloroform	<0.37		2.0	0.37	ug/L			05/09/18 22:35	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/09/18 22:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/09/18 22:35	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/09/18 22:35	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/09/18 22:35	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/09/18 22:35	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/09/18 22:35	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/09/18 22:35	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/09/18 22:35	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/09/18 22:35	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/09/18 22:35	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/09/18 22:35	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/09/18 22:35	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 22:35	1
Styrene	<0.39		1.0	0.39	ug/L			05/09/18 22:35	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-431375/6
Matrix: Water
Analysis Batch: 431375

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/09/18 22:35	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/09/18 22:35	1
Toluene	<0.15		0.50	0.15	ug/L			05/09/18 22:35	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/09/18 22:35	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/09/18 22:35	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/09/18 22:35	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/09/18 22:35	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/09/18 22:35	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/09/18 22:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126		05/09/18 22:35	1
4-Bromofluorobenzene (Surr)	103		72 - 124		05/09/18 22:35	1
Dibromofluoromethane	93		75 - 120		05/09/18 22:35	1
Toluene-d8 (Surr)	92		75 - 120		05/09/18 22:35	1

Lab Sample ID: LCS 500-431375/30
Matrix: Water
Analysis Batch: 431375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	45.3		ug/L		91	70 - 125
1,1,1-Trichloroethane	50.0	41.6		ug/L		83	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	67 - 127
1,1,1,2-Trichloroethane	50.0	49.7		ug/L		99	70 - 122
1,1-Dichloroethane	50.0	46.4		ug/L		93	70 - 125
1,1-Dichloroethene	50.0	43.0		ug/L		86	67 - 122
1,1-Dichloropropene	50.0	46.5		ug/L		93	70 - 121
1,2,3-Trichlorobenzene	50.0	53.1		ug/L		106	55 - 140
1,2,3-Trichloropropane	50.0	45.0		ug/L		90	50 - 133
1,2,4-Trichlorobenzene	50.0	50.8		ug/L		102	66 - 127
1,2,4-Trimethylbenzene	50.0	41.9		ug/L		84	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	42.6		ug/L		85	56 - 123
1,2-Dibromoethane	50.0	49.0		ug/L		98	70 - 125
1,2-Dichlorobenzene	50.0	45.4		ug/L		91	70 - 125
1,2-Dichloroethane	50.0	48.9		ug/L		98	68 - 127
1,2-Dichloropropane	50.0	49.9		ug/L		100	67 - 130
1,3,5-Trimethylbenzene	50.0	41.8		ug/L		84	70 - 123
1,3-Dichlorobenzene	50.0	43.9		ug/L		88	70 - 125
1,3-Dichloropropane	50.0	48.8		ug/L		98	62 - 136
1,4-Dichlorobenzene	50.0	44.7		ug/L		89	70 - 120
2,2-Dichloropropane	50.0	37.1		ug/L		74	58 - 129
2-Chlorotoluene	50.0	40.9		ug/L		82	70 - 125
4-Chlorotoluene	50.0	40.8		ug/L		82	68 - 124
Benzene	50.0	43.8		ug/L		88	70 - 120
Bromobenzene	50.0	45.4		ug/L		91	70 - 122
Bromochloromethane	50.0	49.2		ug/L		98	65 - 122
Bromodichloromethane	50.0	45.2		ug/L		90	69 - 120

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-431375/30

Matrix: Water

Analysis Batch: 431375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	50.0	52.0		ug/L		104	56 - 132
Bromomethane	50.0	49.7		ug/L		99	40 - 130
Carbon tetrachloride	50.0	43.9		ug/L		88	65 - 122
Chlorobenzene	50.0	44.5		ug/L		89	70 - 120
Chloroethane	50.0	45.6		ug/L		91	45 - 127
Chloroform	50.0	41.0		ug/L		82	70 - 120
Chloromethane	50.0	54.0		ug/L		108	54 - 147
cis-1,2-Dichloroethene	50.0	44.0		ug/L		88	70 - 125
cis-1,3-Dichloropropene	50.0	47.5		ug/L		95	64 - 127
Dibromochloromethane	50.0	50.0		ug/L		100	68 - 125
Dibromomethane	50.0	47.1		ug/L		94	70 - 120
Dichlorodifluoromethane	50.0	49.9		ug/L		100	40 - 150
Ethylbenzene	50.0	42.9		ug/L		86	70 - 120
Hexachlorobutadiene	50.0	47.5		ug/L		95	51 - 150
Isopropylbenzene	50.0	41.7		ug/L		83	70 - 126
Methyl tert-butyl ether	50.0	45.4		ug/L		91	70 - 120
Methylene Chloride	50.0	39.8		ug/L		80	69 - 125
Naphthalene	50.0	54.4		ug/L		109	59 - 130
n-Butylbenzene	50.0	42.9		ug/L		86	68 - 125
N-Propylbenzene	50.0	42.5		ug/L		85	69 - 127
p-Isopropyltoluene	50.0	44.8		ug/L		90	70 - 125
sec-Butylbenzene	50.0	42.3		ug/L		85	70 - 123
Styrene	50.0	44.9		ug/L		90	70 - 120
tert-Butylbenzene	50.0	42.9		ug/L		86	70 - 121
Tetrachloroethene	50.0	49.9		ug/L		100	70 - 128
Toluene	50.0	45.4		ug/L		91	70 - 125
trans-1,2-Dichloroethene	50.0	42.4		ug/L		85	70 - 125
trans-1,3-Dichloropropene	50.0	45.8		ug/L		92	62 - 128
Trichloroethene	50.0	50.0		ug/L		100	70 - 125
Trichlorofluoromethane	50.0	38.7		ug/L		77	70 - 126
Vinyl chloride	50.0	44.4		ug/L		89	64 - 126
Xylenes, Total	100	83.4		ug/L		83	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		75 - 126
4-Bromofluorobenzene (Surr)	92		72 - 124
Dibromofluoromethane	94		75 - 120
Toluene-d8 (Surr)	94		75 - 120

Lab Sample ID: MB 500-431527/6

Matrix: Water

Analysis Batch: 431527

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			05/10/18 10:11	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			05/10/18 10:11	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			05/10/18 10:11	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			05/10/18 10:11	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-431527/6

Matrix: Water

Analysis Batch: 431527

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			05/10/18 10:11	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			05/10/18 10:11	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			05/10/18 10:11	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			05/10/18 10:11	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			05/10/18 10:11	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			05/10/18 10:11	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			05/10/18 10:11	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			05/10/18 10:11	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			05/10/18 10:11	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			05/10/18 10:11	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			05/10/18 10:11	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			05/10/18 10:11	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			05/10/18 10:11	1
Benzene	<0.15		0.50	0.15	ug/L			05/10/18 10:11	1
Bromobenzene	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			05/10/18 10:11	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			05/10/18 10:11	1
Bromoform	<0.48		1.0	0.48	ug/L			05/10/18 10:11	1
Bromomethane	<0.80		2.0	0.80	ug/L			05/10/18 10:11	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			05/10/18 10:11	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
Chloroethane	<0.51		1.0	0.51	ug/L			05/10/18 10:11	1
Chloroform	<0.37		2.0	0.37	ug/L			05/10/18 10:11	1
Chloromethane	<0.32		1.0	0.32	ug/L			05/10/18 10:11	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			05/10/18 10:11	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			05/10/18 10:11	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			05/10/18 10:11	1
Dibromomethane	<0.27		1.0	0.27	ug/L			05/10/18 10:11	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			05/10/18 10:11	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			05/10/18 10:11	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			05/10/18 10:11	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			05/10/18 10:11	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			05/10/18 10:11	1
Naphthalene	<0.34		1.0	0.34	ug/L			05/10/18 10:11	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			05/10/18 10:11	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 10:11	1
Styrene	<0.39		1.0	0.39	ug/L			05/10/18 10:11	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			05/10/18 10:11	1

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-431527/6
Matrix: Water
Analysis Batch: 431527

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/L			05/10/18 10:11	1
Toluene	<0.15		0.50	0.15	ug/L			05/10/18 10:11	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			05/10/18 10:11	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			05/10/18 10:11	1
Trichloroethene	<0.16		0.50	0.16	ug/L			05/10/18 10:11	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			05/10/18 10:11	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			05/10/18 10:11	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			05/10/18 10:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		75 - 126		05/10/18 10:11	1
4-Bromofluorobenzene (Surr)	104		72 - 124		05/10/18 10:11	1
Dibromofluoromethane	96		75 - 120		05/10/18 10:11	1
Toluene-d8 (Surr)	98		75 - 120		05/10/18 10:11	1

Lab Sample ID: LCS 500-431527/4
Matrix: Water
Analysis Batch: 431527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.1		ug/L		92	70 - 125
1,1,1-Trichloroethane	50.0	42.0		ug/L		84	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	57.8		ug/L		116	67 - 127
1,1,2-Trichloroethane	50.0	52.7		ug/L		105	70 - 122
1,1-Dichloroethane	50.0	42.1		ug/L		84	70 - 125
1,1-Dichloroethene	50.0	51.0		ug/L		102	67 - 122
1,1-Dichloropropene	50.0	47.2		ug/L		94	70 - 121
1,2,3-Trichlorobenzene	50.0	48.4		ug/L		97	55 - 140
1,2,3-Trichloropropane	50.0	54.4		ug/L		109	50 - 133
1,2,4-Trichlorobenzene	50.0	47.6		ug/L		95	66 - 127
1,2,4-Trimethylbenzene	50.0	56.3		ug/L		113	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	47.7		ug/L		95	56 - 123
1,2-Dibromoethane	50.0	52.3		ug/L		105	70 - 125
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	70 - 125
1,2-Dichloroethane	50.0	39.8		ug/L		80	68 - 127
1,2-Dichloropropane	50.0	43.3		ug/L		87	67 - 130
1,3,5-Trimethylbenzene	50.0	57.2		ug/L		114	70 - 123
1,3-Dichlorobenzene	50.0	51.3		ug/L		103	70 - 125
1,3-Dichloropropane	50.0	52.0		ug/L		104	62 - 136
1,4-Dichlorobenzene	50.0	50.5		ug/L		101	70 - 120
2,2-Dichloropropane	50.0	37.1		ug/L		74	58 - 129
2-Chlorotoluene	50.0	55.7		ug/L		111	70 - 125
4-Chlorotoluene	50.0	56.3		ug/L		113	68 - 124
Benzene	50.0	47.2		ug/L		94	70 - 120
Bromobenzene	50.0	49.5		ug/L		99	70 - 122
Bromochloromethane	50.0	44.1		ug/L		88	65 - 122
Bromodichloromethane	50.0	44.5		ug/L		89	69 - 120
Bromoform	50.0	42.5		ug/L		85	56 - 132

TestAmerica Chicago

QC Sample Results

Client: MSA Professional Services, Inc
 Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-431527/4

Matrix: Water

Analysis Batch: 431527

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	50.0	62.1		ug/L		124	40 - 130
Carbon tetrachloride	50.0	42.0		ug/L		84	65 - 122
Chlorobenzene	50.0	50.0		ug/L		100	70 - 120
Chloroethane	50.0	38.2		ug/L		76	45 - 127
Chloroform	50.0	43.6		ug/L		87	70 - 120
Chloromethane	50.0	45.9		ug/L		92	54 - 147
cis-1,2-Dichloroethene	50.0	49.0		ug/L		98	70 - 125
cis-1,3-Dichloropropene	50.0	48.6		ug/L		97	64 - 127
Dibromochloromethane	50.0	46.3		ug/L		93	68 - 125
Dibromomethane	50.0	45.2		ug/L		90	70 - 120
Dichlorodifluoromethane	50.0	53.2		ug/L		106	40 - 150
Ethylbenzene	50.0	53.2		ug/L		106	70 - 120
Hexachlorobutadiene	50.0	45.1		ug/L		90	51 - 150
Isopropylbenzene	50.0	56.1		ug/L		112	70 - 126
Methyl tert-butyl ether	50.0	40.2		ug/L		80	70 - 120
Methylene Chloride	50.0	51.0		ug/L		102	69 - 125
Naphthalene	50.0	51.6		ug/L		103	59 - 130
n-Butylbenzene	50.0	58.7		ug/L		117	68 - 125
N-Propylbenzene	50.0	58.8		ug/L		118	69 - 127
p-Isopropyltoluene	50.0	54.7		ug/L		109	70 - 125
sec-Butylbenzene	50.0	57.3		ug/L		115	70 - 123
Styrene	50.0	53.2		ug/L		106	70 - 120
tert-Butylbenzene	50.0	53.3		ug/L		107	70 - 121
Tetrachloroethene	50.0	46.3		ug/L		93	70 - 128
Toluene	50.0	53.6		ug/L		107	70 - 125
trans-1,2-Dichloroethene	50.0	49.2		ug/L		98	70 - 125
trans-1,3-Dichloropropene	50.0	47.3		ug/L		95	62 - 128
Trichloroethene	50.0	45.4		ug/L		91	70 - 125
Trichlorofluoromethane	50.0	40.7		ug/L		81	70 - 126
Vinyl chloride	50.0	46.6		ug/L		93	64 - 126
Xylenes, Total	100	106		ug/L		106	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	77		75 - 126
4-Bromofluorobenzene (Surr)	102		72 - 124
Dibromofluoromethane	90		75 - 120
Toluene-d8 (Surr)	100		75 - 120

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: EXW-4

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 12:50	EMA	TAL CHI

Client Sample ID: EXW-6

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 13:15	EMA	TAL CHI

Client Sample ID: Muni #3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 04:08	PMF	TAL CHI

Client Sample ID: MW-17

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 13:41	EMA	TAL CHI

Client Sample ID: MW-18

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 14:06	EMA	TAL CHI

Client Sample ID: MW-19

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 14:32	EMA	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: MW-20

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 14:57	EMA	TAL CHI

Client Sample ID: MW-21

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 15:23	EMA	TAL CHI

Client Sample ID: MW-21A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 15:48	EMA	TAL CHI

Client Sample ID: B-1

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 16:14	EMA	TAL CHI

Client Sample ID: B-1A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 16:40	EMA	TAL CHI

Client Sample ID: B-1B

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-12

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 17:06	EMA	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-3

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-13

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 04:33	PMF	TAL CHI

Client Sample ID: B-3A

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-14

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 04:59	PMF	TAL CHI

Client Sample ID: B-10

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-15

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 17:32	EMA	TAL CHI

Client Sample ID: B-11

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-16

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 17:57	EMA	TAL CHI

Client Sample ID: B-12

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-17

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431313	05/09/18 18:23	EMA	TAL CHI

Client Sample ID: B-13

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-18

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 05:24	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: B-13A

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-19

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431527	05/10/18 15:39	PMF	TAL CHI

Client Sample ID: B-13B

Date Collected: 04/27/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-20

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431527	05/10/18 16:09	PMF	TAL CHI

Client Sample ID: MW-18A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-21

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 02:26	PMF	TAL CHI

Client Sample ID: MW-19A

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-22

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 02:51	PMF	TAL CHI

Client Sample ID: Discharge Pipe

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-23

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 03:17	PMF	TAL CHI

Client Sample ID: B-1 Dup

Date Collected: 04/26/18 00:00

Date Received: 04/28/18 10:30

Lab Sample ID: 500-144531-24

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/10/18 03:42	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-144531-25

Date Collected: 04/26/18 00:00

Matrix: Water

Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	431375	05/09/18 23:52	PMF	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Accreditation/Certification Summary

Client: MSA Professional Services, Inc
Project/Site: Minocqua Cleaners - 8267019

TestAmerica Job ID: 500-144531-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

1

2

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Luster (optional)
 Contact: MSA Professional
 Company: MSA Professional
 Address: 1235 South Blvd.
 Address: Downers Grove, IL 60513
 Phone: 628-356-2771
 Fax: _____
 E-Mail: _____

Bill To: _____ (optional)
 Contact: _____
 Company: _____
 Address: Samuel
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144531
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: 2.2

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
MSA Professional		8267019		VCL-BALD							
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
Munsequa Clean 15				4/26		27/18		3		Gm	
Project Location/State		Lab Project #		Date		Time		# of Containers		Matrix	
IL								3		X	
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
David Fitzsimmons								3		X	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix		Comments		
1		EXW-4	4/26	27/18	3	Gm	X		26		
2		EXW-6			3		X		26		
3		Munier #3			3		X		27		
4		MW-17			3		X		26		
5		MW-18			3		X		26		
6		MW-19			3		X		26		
7		MW-20			3		X		26		
8		MW-21			3		X		26		
9		MW-21A			3		X		26		
10		B-1			3		X		26		



500-144531 COC

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

Turnaround Time Required (Business Days): 2 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: David Fitzsimmons Company: MSA Date: 4/27/18 Time: _____

Received By: Air Survey Company: TAAGI Date: 04/28/18 Time: 1030

Relinquished By: _____ Company: _____ Date: _____ Time: _____

Received By: _____ Company: _____ Date: _____ Time: _____

Relinquished By: _____ Company: _____ Date: _____ Time: _____

Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: _____

Shipped: EX SATURDAY

Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To: Dick Lupton (optional)
 Contact: MSP Professional
 Company: MSP Professional
 Address: 1230 South Blvd.
 Address: Bryn Mawr PA 19013
 Phone: 610-352-2771
 Fax: _____
 E-Mail: _____

Bill To: _____ (optional)
 Contact: _____
 Company: Same
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144531
 Chain of Custody Number: _____
 Page 2 of 3
 Temperature °C of Cooler: 2.2

Client: <u>MSP Professional</u>		Client Project #: <u>8267019</u>		Preservative		Parameter		Matrix		Preservative Key	
Project Name: <u>Mundana Cleaners</u>		Lab Project #		Date		Time		# of Containers		Comments	
Project Location/State: <u>PA</u>		Lab PM: <u>David Fitzsimmons</u>		Date		Time		# of Containers		Comments	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
11		B-1A	4/26	27/18	3	bw	X				26
12		B-1B			3		X				26
13		B-3			3		X				27
14		B-3A			3		X				27
15		B-10			3		X				26
16		B-11			3		X				26
17		B-12			3		X				26
18		B-13			3		X				27
19		B-13A			3		X				27
20		B-13B			3		X				27

Turnaround Time Required (Business Days): 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date: _____

Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: David Fitzsimmons Company: MSP Date: 4/27/18 Time: _____

Received By: David Lupton Company: TestAmerica Date: 04/28/18 Time: 1030

Relinquished By: _____ Company: _____ Date: _____ Time: _____

Received By: _____ Company: _____ Date: _____ Time: _____

Relinquished By: _____ Company: _____ Date: _____ Time: _____

Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: _____

Shipped: EX SATURDAY

Hand Delivered: _____

Matrix Key:

- WW - Wastewater
- W - Water
- S - Soil
- SL - Sludge
- MS - Miscellaneous
- OL - Oil
- A - Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - Wipe
- DW - Drinking Water
- O - Other

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To Dick Luster (optional) Bill To _____ (optional)
 Contact: _____ Contact: _____
 Company: MSA Professional Company: Same
 Address: 1234 South Blvd Address: _____
 Address: Bensenville IL 60013 Address: _____
 Phone: 608-356-2771 Phone: _____
 Fax: _____ Fax: _____
 E-Mail: _____ PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-144531
 Chain of Custody Number: _____
 Page 3 of 3
 Temperature °C of Cooler: 2.2

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
<u>MSA Professional</u>		<u>8267019</u>						<u>VOL 9262D</u>				
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key		
<u>Minoxona Cleaners</u>		<u>WI</u>				<u>David Fitzsimmons</u>		<u>MS</u>		1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix						
			Date	Time								
<u>21</u>		<u>mw-18A</u>	<u>4/26</u>	<u>27/18</u>	<u>3</u>	<u>GW</u>	<u>X</u>					
<u>22</u>		<u>mw-19A</u>	<u>L</u>		<u>3</u>	<u>L</u>	<u>X</u>					
<u>23</u>		<u>Discharge Pipe</u>	<u>L</u>		<u>3</u>	<u>L</u>	<u>X</u>					
<u>24</u>		<u>B-1 Dump</u>	<u>L</u>		<u>3</u>	<u>L</u>	<u>X</u>					
<u>25</u>		<u>Trip Blank</u>	<u>L</u>		<u>2</u>	<u>L</u>	<u>X</u>					

Turnaround Time Required (Business Days) 1 Day 2 Days 3 Days 7 Days 10 Days 15 Days Other _____
 Requested Due Date _____

Sample Disposal Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By [Signature] Company MSA Date 4/27/18 Time 1030
 Relinquished By _____ Company _____ Date _____ Time _____
 Relinquished By _____ Company _____ Date _____ Time _____

Received By [Signature] Company TAL Date 04/28/18 Time 1030
 Received By _____ Company _____ Date _____ Time _____
 Received By _____ Company _____ Date _____ Time _____

Lab Courier: _____
 Shipped: Ex 8 Thursday
 Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: MSA Professional Services, Inc

Job Number: 500-144531-1

Login Number: 144531

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	N/A	Refer to Job Narrative for details.
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

