

July 5, 2016

Mr. Robert Klauk  
Wisconsin Department of Natural Resources  
2984 Shawano Ave.  
Green Bay, WI 54313

**Subject: Tyco FTC - Marinette, Wisconsin**  
**Brrts Number: 03-38-0001345**  
**Groundwater Sampling – 1st Quarter 2016**

### **Background**

The FTC is a fire suppressant training, testing, research, and development facility built in the early 1960s. Activities generally occur in two areas at the facility: the Fire Training School area and the Research and Development (R&D) area. The FTC encompasses approximately 270 acres with approximately 26 acres (9.6%) used as the Fire Training School and 5 acres (1.8%) used as the R&D area. Historically, the Fire Training School and R&D facilities used two 12,000-gallon aboveground storage tanks (ASTs) containing heptane, with their associated underground distribution piping, as a fuel source for fire training activities. The Site-related groundwater impacts appear to have originated in the Fire Training School area, which is approximately 1/3 to 1/2 mile from the nearest property boundary.

Ansul began initial site investigation activities, which were conducted to delineate the extent of soil and groundwater contamination, in 1993. Several investigation phases, including a groundwater monitoring program have been ongoing since then. The extent of groundwater contamination, which is present in shallow groundwater (<40 feet below ground surface [bgs]), has been delineated based on the groundwater monitoring program results. Almost all of the monitoring wells are screened within the surficial aquifer in the sand/silty sand unit that extends down to approximately 40 feet bgs. Beneath the sand/silty sand is stiff clay that appears to inhibit downward vertical flow. Monitoring well names ending in an “S” generally indicate a screened section at the shallow portion of this sand/silty sand unit (5 to 15 feet bgs). Monitoring well names ending in a “D” generally indicate a screened section at the deeper part of the sand/silty sand unit (30 to 40 feet bgs). The monitoring wells at locations PZ-1 and PZ-4 do not follow this nomenclature.

### **Groundwater Sampling Activities**

In response to the O & M, Inc. Groundwater Sampling Work Plan, submitted in January 2014, the Wisconsin Department of Natural Resources (WDNR) approved the list of twelve monitoring wells that were proposed for semi-annual groundwater monitoring (First and Third Quarters). The groundwater sampling completed in March 2016 (First Quarter) was one of the semi-annual events. Three of the monitoring wells on the approved list were not sampled. FTC-4S wellhead was submerged beneath more than 1 foot of surface water from recent precipitation and could not be accessed. MW-5/PZ-5 was not sampled due to the presence of 2 inches of non-aqueous phase liquid (NAPL) in MW-5. In addition to the 9 monitoring wells in the approved sampling plan that were sampled, groundwater from 18 additional monitoring wells in locations deemed important to monitor potential fluctuations in groundwater quality were sampled in March 2016.

Depth to groundwater measurements were collected prior to initiation of purging or sampling activities. Upon arriving at the Site, each well was opened and allowed to equilibrate with ambient atmospheric pressure before measurements were initiated. O & M, Inc. then measured depth-to-water in each well from a reference mark at the top of each monitoring well casing to 0.01-foot accuracy using an electronic water level indicator. The depth-to-water was then subtracted from the top of casing elevation to calculate water table elevation. The top of casing elevation, depth to water measurement, and calculated water table elevation for each monitoring well sampled in March 2016 are shown on Table 1. A Potentiometric Surface Map is presented as Figure 1. The water level probe was decontaminated between well locations to prevent cross-contamination.

Groundwater sampling activities were completed the week of March 28, 2016 in accordance with WDNR guidance. Monitoring wells were purged using low-flow sampling techniques. Groundwater parameters, including pH, temperature, conductivity, dissolved oxygen, and oxidation reduction potential were measured and recorded during purging activities. Purge water was contained in 55-gallon drums and properly disposed.

Following stabilization of field parameters, O & M, Inc. collected groundwater samples from 27 monitoring wells. The samples were collected using low-flow sampling techniques, in laboratory-provided sample containers preserved in accordance with the required analytical methodology. All reusable sampling equipment was decontaminated between sampling locations by scrubbing the equipment with an Alconox solution and rinsing with bottled water. The samples were placed in ice-filled coolers and submitted to Accutest Laboratories (Accutest), a WDNR-certified laboratory, under chain-of-custody protocols, via overnight carrier.

### **Groundwater Analytical Results**

The groundwater samples were analyzed by Accutest for volatile organic compounds (VOCs) or petroleum volatile organic compounds (PVOCs), dependent on the chemicals historically identified in various areas.

The monitoring well and piezometer locations and the concentrations of benzene, methyl tertiary butyl ether (MTBE), and trichloroethene (TCE) are presented on Figure 2, Figure 3, and Figure 4, respectively. Table 2 presents the historical groundwater data for the wells during 2014, 2015 and first quarter 2016. Attachment A includes the laboratory report for 1<sup>st</sup> quarter 2016 groundwater sampling.

#### *ERD Pilot Test Area*

The week of June 23, 2014, electron donor solution was injected into three injection wells up-gradient of PZ-2 and three injection wells up-gradient of PZ-6.

The emulsified vegetable oil (EVO) was designed to migrate, and to then set up in one location after approximately 3 months, when the emulsion broke down. The donor would then slowly be released over a long period of time (up to 2 years) in the form of fatty acids. This first injection may have migrated through the treatment zone near PZ-6 fairly quickly, as is indicated by an initial decrease in TCE concentration followed by a rebound to near baseline conditions.

The TCE concentration in groundwater collected from PZ-2 has historically fluctuated, however, the TCE concentration during the March 2016 groundwater sampling was 24% less than the baseline concentration.

A second enhanced reductive dechlorination (ERD) injection was completed the week of October 6, 2014. Additional injection wells were installed 20-25' up gradient of PZ-6D. New monitoring point (PZ-17S/D) were installed ~ 20' down gradient of PZ-6D.

The week of October 6, 2014, electron donor solution was injected into 16 injection wells up-gradient of PZ-6 and PZ-17.

One year after the second injection (November 2015) the TCE concentration in groundwater collected from PZ-6D was reduced by 49% from the June 19, 2014 baseline groundwater sampling. The TCE concentration, however, remained over the WDNR enforcement standard (ES). The TCE concentration had not rebounded as of the most recent, November 2015, groundwater sampling of PZ-6D. As of March 30, 2016, EVO was observed to still be present in monitoring well PZ-6D.

Monitoring well PZ-17D was installed October 2, 2014, 3 months after the first ERD injection. Therefore, no baseline groundwater readings are available. Since PZ-6D and PZ-17D are only 20 feet apart, the assumption for trend analysis is that the baseline concentration for the two monitoring wells was the same. Using this assumption, eighteen months after the second injection (March 2016) the TCE concentration in groundwater collected from PZ-17D was reduced by 59%. The TCE concentration, however, remained over

the WDNR ES. A Graph of the TCE concentration trend in monitoring wells PZ-6D and PZ-17D is presented as Figure 5.

The elevated detection limits in PZ-6D during April 2015 sampling were due to interference from the residual EVO in the groundwater. Milky groundwater was observed in PZ-6D and PZ-17D, as well as some soap like scum. Soap like scum is often due to an interaction of donor with hard water. Groundwater from monitoring well PZ-6D has not been analyzed during several of the sampling events due to the strong presence of EVO and the soap like scum.

An increase in DCE/TCE molar ratio in both PZ-6D and PZ-17D indicates that the desired transformation from TCE → *cis*-1,2-DCE is occurring. Results at PZ-6D are likely due to the 2<sup>nd</sup> injection; results at PZ-17D could be due to either injection. A Graph of the molar ratio of *cis*-1,2-DCE to TCE in monitoring wells PZ-6D and PZ-17D is presented as Figure 5. In addition, strongly negative oxidation reduction potential (ORP) readings and dissolved oxygen (DO) readings at or near zero in PZ-6D and newly installed monitoring well PZ-17D have been measured during many of the sampling events since the second injection. A reduction in ORP readings, particularly the presence of negative values, is a strong indication of active biological activity.

*Chemical Oxidation Pilot Test Area*

Groundwater samples were again collected down-gradient of the chemical oxidation pilot testing area. Groundwater collected from the monitoring well located 90 feet down-gradient from the injection wells (PZ-22) decreased from baseline concentrations of 12.9 ug/l benzene and 257 ug/l MTBE, to below laboratory detection limits for both compounds. Groundwater collected from the monitoring well located 25 feet down-gradient from the injection wells (PZ-18) decreased from baseline concentrations by 10% for benzene and 21% for MTBE. The benzene and MTBE concentrations, however, remained over the WDNR ES. The reason a larger reduction in concentration was not observed in PZ-18, which is closer to the injection wells than PZ-22, is not yet apparent. The effectiveness of the injection and the size and shape of the treatment zone will be further assessed as additional groundwater data are available, allowing for a more rigorous trend analysis. A Graph of the benzene and MTBE concentration trends in monitoring wells PZ-18D and PZ-22D is presented as Figure 6.

**Recommendations**

The WDNR approved a semi-annual groundwater sampling schedule (first and third quarters). Therefore, groundwater sampling is not required during the second quarter; however, select groundwater samples will be collected in June 2016 based on determined data requirements. The following sampling and analyses are planned:

Well	Sampling Purpose	Analytical Parameters
PZ-3	Evaluate ISCO Pilot Test	VOCs, Sulfate, Persulfate field test
PZ-6D	Evaluate ERD Pilot Test	VOCs, Sulfate, Dissolved Fe/Mn, Dissolved Light Gases, TOC
PZ-7	Evaluate ISCO Pilot Test	VOCs, Sulfate, Persulfate field test
PZ-17D	Evaluate ERD Pilot Test	VOCs, Sulfate, Dissolved Fe/Mn, Dissolved Light Gases, TOC
PZ-18D	Evaluate ISCO Pilot Test	VOCs, Sulfate, Persulfate field test
PZ-22D	Evaluate ISCO Pilot Test	VOCs, Sulfate, Persulfate field test
BIW-4	Evaluate ISCO Pilot Test	VOCs, Sulfate, Persulfate field test

This recommendation is in accordance with the plan approved by the WDNR in January 2014. The purpose of the groundwater monitoring activities is to document groundwater quality trends and to develop a plan for additional investigation, if required.

Please call or e-mail Eric T. Frauen at (414) 963-6210 or [efrauen@OandM-Inc.com](mailto:efrauen@OandM-Inc.com) if you have any questions or require additional information.

Sincerely,  
*O & M, Inc.*

A handwritten signature in cursive script, appearing to read "Eric T. Frauen". The signature is written in black ink on a light background.

Eric T. Frauen, P.G.  
Project Manager

**Table 1**  
**Water Table Elevations**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Well ID	TOC Elevation	Depth-to-Water (ft) from TOC	Water Table Elevation
CS-9R	610.22	1.42	608.80
FTC 2S	611.77	3.34	608.43
FTC-13R	609.92	1.75	608.17
FTC-15R	610.06	2.19	607.87
PZ-1S	606.67	7.18	599.49
PZ-1D	606.65	10.60	596.05
PZ-2	610.74	6.68	604.06
PZ-3	609.58	8.03	601.55
PZ-6S	609.83	8.38	601.45
PZ-6D	609.18	7.97	601.21
PZ-7	608.32	7.34	600.98
PZ-9	611.15	5.00	606.15
PZ-13	610.94	7.63	603.31
PZ-14S	611.19	3.78	607.41
PZ-14D	611.62	4.63	606.99
PZ-15S	608.55	8.59	599.96
PZ-15D	608.61	8.79	599.82
PZ-16S	609.30	7.14	602.16
PZ-16D	608.98	7.25	601.73
PZ-17S	609.51	8.19	601.32
PZ-17D	609.51	8.31	601.20
PZ-18S	609.52	7.44	602.08
PZ-18D	609.83	7.87	601.96
PZ-19	608.70	8.31	600.39
PZ-20	611.22	8.14	603.08
PZ-21	610.69	8.53	602.16
PZ-22S	609.70	7.85	601.85
PZ-22D	609.58	7.75	601.83

Notes:

Survey Vertical Datum - NAVD 88

TOC - Top of Casing

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	CS-9R	CS-9R	CS-9R	CS-9R	CS-9R	FTC-2S	FTC-2S	FTC-2S	FTC-2S	FTC-13R	FTC-13R	FTC-13R	FTC-13R
			4/22/14	7/24/14	11/11/14	4/1/15	3/30/16	4/22/14	7/24/14	4/1/15	3/30/16	4/22/14	7/24/14	11/11/14	4/1/15
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>														
Benzene	ug/l	5	903	2250	76.6	1300	499	2580	8030	9490	7310	1850	6820	5420	4320
Toluene	ug/l	800	11800	38000	2000	34900	13900	9780	30500	33300	23000	21600	47100	44500	37900
Ethylbenzene	ug/l	700	273	900	114	795	482	1480	2600	2440	2620	456	802	817	502
Xylene, o	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	ug/l	2000	1190	4080	773	4070	3570	6930	15400	13100	13300	2550	4660	4660	3570
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butyl-ether	ug/l	60	ND	ND	ND	<3.5	<110	ND	ND	<35	<570	325	1960	932	1410
Naphthalene	ug/l	100	55.8	ND	51.3	83.8	285	443	480	291	493	ND	ND	ND	<400
Total Trimethylbenzene	ug/l	480	487.8	373	219.8	429.4	633	1493	2791	1815	2118	ND	711	532	401.2
cis-1,2 - Dichloroethene	ug/l	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/l	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/l	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are

considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are

NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	FTC-13R	FTC-15R	FTC-15R	FTC-15R	FTC-15R	FTC-15R	FTC-15R	BIW-4	BIW-4	PZ-1S	PZ-1S	PZ-1S	PZ-1S	PZ-1S
			3/30/16	4/22/14	7/24/14	11/11/14	4/1/15	3/30/16	9/28/15	11/24/15	3/11/14	7/23/14	4/1/15	9/28/15	3/30/16	
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>															
Benzene	ug/l	5	2970	956	3200	2930	2240	2660	7	6.5	ND	ND	<0.27	<0.27	<0.45	
Toluene	ug/l	800	32400	5520	44600	38000	39900	35500	<5.9	<0.66	ND	ND	<0.29	<0.29	<0.49	
Ethylbenzene	ug/l	700	464	528	538	655	753	757	<4.8	<0.24	ND	ND	<0.24	<0.24	<0.53	
Xylene, o	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	<0.22	NA	ND	<0.22	<0.22	<0.22	
Xylenes	ug/l	2000	3510	4110	4370	6270	7440	7440	<4.3	<0.22	ND	ND	<0.22	<0.22	<0.22	
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	<0.82	NA	ND	<0.47	<0.47	<0.40	
Methyl-tert-butyl-ether	ug/l	60	250	ND	510	290	708	128	105	58.2	ND	ND	<0.35	<0.35	<0.57	
Naphthalene	ug/l	100	101	1390	170	ND	274	270	<12	3.4	ND	ND	<2.0	<2.0	<0.45	
Total Trimethylbenzene	ug/l	480	529	1408	736	1070	1464	1397	<4.0	<0.29	ND	ND	<0.2	<0.2	<0.24	
cis-1,2 - Dichloroethene	ug/l	70	NA	NA	NA	NA	NA	NA	NA	<0.54	NA	ND	<0.31	<0.31	<0.29	
Trichloroethene	ug/l	5	NA	NA	NA	NA	NA	NA	NA	<0.25	NA	ND	<0.25	<0.25	<0.48	
Vinyl Chloride	ug/l	0.2	NA	NA	NA	NA	NA	NA	NA	<0.45	NA	ND	<0.45	<0.45	<0.69	

Notes:

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<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

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**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
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**FTC**  
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Compounds		ES	PZ-1D	PZ-1D	PZ-1D	PZ-1D	PZ-1D	PZ-2	PZ-2	PZ-2	PZ-2	PZ-2	PZ-2	PZ-2	PZ-3
			3/11/14	7/23/14	4/1/15	9/28/15	3/30/16	4/22/14	7/23/14	11/11/14	4/1/15	6/26/15	9/28/15	3/30/16	4/1/15
Volatile Organic Compounds (µg/L):	Units														
Benzene	ug/l	5	ND	ND	<0.27	<0.27	<0.45	1.1	1.4	0.73	<0.27	1.1	1.3	<0.45	<1.4
Toluene	ug/l	800	ND	ND	<0.29	<0.29	<0.49	15.6	ND	8	<0.29	<0.29	<0.29	<0.49	<1.5
Ethylbenzene	ug/l	700	ND	ND	<0.24	<0.24	<0.53	1.2	ND	0.36	<0.24	<0.24	<0.24	<0.53	<1.2
Xylene, o	ug/l	2000 <sup>b</sup>	NA	ND	<0.22	<0.22	<0.22	1.3	ND	0.74	<0.22	<0.22	NA	<0.22	NA
Xylenes	ug/l	2000	ND	ND	<0.22	<0.22	<0.22	6.2	ND	2.3	<0.22	<0.22	<0.22	<0.22	<1.1
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	ND	<0.47	<0.47	<0.40	5	ND	1.5	<0.47	<0.47	NA	<0.40	NA
Methyl-tert-butyl-ether	ug/l	60	ND	ND	<0.35	<0.35	<0.57	ND	ND	ND	<0.35	<0.35	<0.35	<0.57	60.2
Naphthalene	ug/l	100	ND	ND	<2.0	<2.0	<0.45	ND	ND	ND	<2.0	<2.0	<2.0	<0.45	<10
Total Trimethylbenzene	ug/l	480	ND	ND	<0.2	<0.2	<0.24	ND	ND	0.38	<0.2	<0.2	<0.2	<0.24	<1.0
cis-1,2 - Dichloroethene	ug/l	70	NA	ND	<0.31	<0.31	<0.29	1.3	5.7	3.4	3.5	4.4	5.2	2.6	NA
Trichloroethene	ug/l	5	NA	ND	<0.25	<0.25	<0.48	7.4	12	8.4	7.9	10.1	9.8	5.6	NA
Vinyl Chloride	ug/l	0.2	NA	ND	<0.45	<0.45	<0.69	ND	ND	ND	<0.45	<0.45	<0.45	<0.69	NA

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<sup>b</sup> The value is for total xylenes

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**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
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Compounds		ES	PZ-3	PZ-3	PZ-3	PZ-3	PZ-4S	PZ-4S	PZ-4S	PZ-4D	PZ-4D	PZ-5	PZ-6S	PZ-6S	PZ-6S
			5/6/15	9/28/15	11/24/15	3/30/16	3/11/14	7/24/14	9/28/15	7/24/14	9/28/15	7/24/14	1/11/14	6/19/14	6/26/14
Volatile Organic Compounds (µg/L):	Units														
Benzene	ug/l	5	50.2	75.9	82.7	52.8	389	600	364	ND	<0.27	69.5	ND	ND	NA
Toluene	ug/l	800	<2.9	<15	<33	<0.98	ND	3.8	<5.9	ND	<0.29	ND	ND	ND	NA
Ethylbenzene	ug/l	700	<2.4	<12	<12	1.9	24	29	22.4	ND	<0.24	ND	ND	ND	NA
Xylene, o	ug/l	2000 <sup>b</sup>	NA	NA	<11	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA
Xylenes	ug/l	2000	<2.2	<11	<11	4.6	25.7	28.1	15.1	ND	<0.22	ND	ND	ND	NA
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	NA	<41	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA
Methyl-tert-butyl-ether	ug/l	60	568	649	500	371	289	463	464	ND	0.95	108	ND	ND	NA
Naphthalene	ug/l	100	<20	<100	<30	<0.90	ND	ND	<12	ND	<2.0	ND	ND	ND	NA
Total Trimethylbenzene	ug/l	480	<2.0	<10	<14	0.98	ND	13.8	9.9	ND	<0.2	ND	ND	ND	NA
cis-1,2 - Dichloroethene	ug/l	70	NA	NA	<27	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Trichloroethene	ug/l	5	NA	NA	<12	NA	NA	NA	NA	NA	NA	NA	0.42	ND	NA
Vinyl Chloride	ug/l	0.2	NA	NA	<23	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

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**Marinette, Wisconsin**

Compounds		ES	PZ-6S	PZ-6S	PZ-6S	PZ-6S	PZ-6S	PZ-6S	PZ-6	PZ-6D	PZ-6D	PZ-6D	PZ-6D	PZ-6D	PZ-6D	PZ-6D
									aka PZ-6D							
			7/23/14	4/1/15	6/26/15	9/28/15	3/30/16	4/23/14	6/19/14	7/23/14	8/26/14	10/6/14	11/11/14	4/1/15	11/24/15	
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>															
Benzene	ug/l	5	ND	<0.27	<0.27	<0.27	<0.45	3.3	1.9	3.1	1.3	2.5	2	<270	3.5	
Toluene	ug/l	800	ND	<0.29	<0.29	<0.29	<0.49	8.2	ND	ND	0.67	ND	ND	<290	<0.66	
Ethylbenzene	ug/l	700	ND	<0.24	<0.24	<0.24	<0.53	ND	ND	ND	ND	ND	ND	<240	<0.24	
Xylene, o	ug/l	2000 <sup>b</sup>	ND	<0.22	<0.22	<0.22	<0.22	ND	ND	ND	ND	ND	ND	<220	<0.22	
Xylenes	ug/l	2000	ND	<0.22	<0.22	<0.22	<0.22	2.1	ND	ND	ND	ND	ND	<220	<0.22	
Xylenes, m + p	ug/l	2000 <sup>b</sup>	ND	<0.47	<0.47	<0.47	<0.40	1.6	ND	ND	ND	ND	ND	<470	<0.82	
Methyl-tert-butyl-ether	ug/l	60	ND	<0.35	<0.35	<0.35	<0.57	ND	ND	ND	ND	ND	ND	<350	<0.35	
Naphthalene	ug/l	100	ND	<2.0	<2.0	<2.0	<0.45	ND	ND	ND	ND	ND	ND	<2,000	3.4	
Total Trimethylbenzene	ug/l	480	ND	<0.2	<0.2	<0.2	<0.24	ND	ND	ND	ND	ND	ND	<200	<0.29	
cis-1,2 - Dichloroethene	ug/l	70	ND	<0.31	<0.31	<0.31	<0.29	2.5	3	3.2	2	3.4	3	<310	5	
Trichloroethene	ug/l	5	ND	<0.25	<0.25	<0.25	<0.48	31.8	28.8	33.1	15.5	29.2	28.9	<250	14.8	
Vinyl Chloride	ug/l	0.2	ND	<0.45	<0.45	<0.45	<0.69	<1.0	<0.58	0.7	ND	ND	0.52	<450	0.53	

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are

considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are

NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-7	PZ-7	PZ-7	PZ-7	PZ-7	PZ-8	PZ-9	PZ-9	PZ-9	PZ-10	PZ-11	PZ-12	PZ-12
			3/11/14	7/24/14	4/1/15	9/28/15	3/30/16	9/28/15	10/6/14	9/28/15	3/30/16	9/28/15	9/28/15	4/1/15	9/28/15
Volatile Organic Compounds (µg/L):	Units														
Benzene	ug/l	5	35.3	52.2	32.9	37	48.3	314	ND	<0.27	<0.45	<0.27	<0.27	<0.27	10.7
Toluene	ug/l	800	ND	ND	<1.5	<1.5	<4.9	<1.5	ND	<0.29	<0.49	<0.29	<0.29	<0.29	<1.5
Ethylbenzene	ug/l	700	ND	5.7	5	5	8.1	47.5	ND	<0.24	<0.53	<0.24	<0.24	<0.24	<1.2
Xylene, o	ug/l	2000 <sup>b</sup>	NA	ND	NA	NA	NA	NA	ND	<0.22	<0.22	<0.22	NA	NA	NA
Xylenes	ug/l	2000	ND	ND	1.3	1.1	2.9	19.9	ND	<0.22	<0.22	<0.22	<0.22	<0.22	<1.1
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	ND	NA	NA	NA	NA	ND	<0.47	<0.40	<0.47	NA	NA	NA
Methyl-tert-butyl-ether	ug/l	60	851	1290	820	632	580	133	ND	<0.35	<0.57	<0.35	8.1	44.2	165
Naphthalene	ug/l	100	ND	ND	<10	<10	<4.5	25.9	ND	<2.0	<0.45	<2.0	<2.0	<2.0	<10
Total Trimethylbenzene	ug/l	480	ND	ND	<1.0	<1.0	<2.4	30.9	ND	<0.2	<0.24	<0.2	<0.2	<0.2	<1.0
cis-1,2 - Dichloroethene	ug/l	70	NA	NA	NA	NA	NA	NA	ND	<0.31	<0.29	<0.31	NA	NA	NA
Trichloroethene	ug/l	5	NA	NA	NA	NA	NA	NA	ND	<0.25	<0.48	<0.25	NA	NA	NA
Vinyl Chloride	ug/l	0.2	NA	NA	NA	NA	NA	NA	ND	<0.45	<0.69	<0.45	NA	NA	NA

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-13	PZ-13	PZ-13	PZ-14S	PZ-14S	PZ-14S	PZ-14S	PZ-14S	PZ-14S	PZ-14	PZ-14D	PZ-14D	PZ-14D
												aka PZ-14D			
			10/6/14	9/28/15	3/30/16	6/20/14	7/24/14	4/1/15	6/26/15	9/28/15	3/30/16	4/22/14	7/24/14	4/1/15	6/26/15
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>														
Benzene	ug/l	5	ND	<0.27	<0.45	0.45	2.2	19.6	0.45	<1.4	0.58	3.2	ND	10.2	<0.27
Toluene	ug/l	800	ND	<0.29	<0.49	14.3	41.3	165	2.6	8.1	3.9	42.8	ND	80.4	<0.29
Ethylbenzene	ug/l	700	ND	<0.24	<0.53	1.1	4	14.3	3.6	8.4	2.4	4.8	ND	4.7	0.55
Xylene, o	ug/l	2000 <sup>b</sup>	ND	<0.22	<0.22	4	NA	42	20.9	25.9	6.1	6	ND	8.2	0.7
Xylenes	ug/l	2000	ND	<0.22	<0.22	9.9	40.5	119	34.1	77.8	20	27	ND	26.4	1.24
Xylenes, m + p	ug/l	2000 <sup>b</sup>	ND	<0.47	<0.40	5.9	NA	76.9	13.2	51.9	13.9	21	ND	18.2	0.54
Methyl-tert-butyl-ether	ug/l	60	ND	<0.35	<0.57	ND	ND	<0.35	<0.35	<1.7	<0.57	ND	ND	<0.35	<0.35
Naphthalene	ug/l	100	ND	<2.0	<0.45	2.7	15.4	32.6	22.8	56.8	7	ND	ND	2	<2.0
Total Trimethylbenzene	ug/l	480	ND	<0.2	<0.24	2.7	13.1	41.5	31.1	50.8	11.4	6.1	ND	3.95	0.59
cis-1,2 - Dichloroethene	ug/l	70	ND	<0.31	<0.29	ND	NA	<0.31	<0.31	<1.6	<0.29	ND	NA	<0.31	<0.31
Trichloroethene	ug/l	5	ND	<0.25	<0.48	ND	NA	<0.25	<0.25	<1.2	<0.48	2	NA	<0.25	<0.25
Vinyl Chloride	ug/l	0.2	ND	<0.45	<0.69	ND	NA	<0.45	<0.45	<2.3	<0.69	ND	NA	<0.45	<0.45

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are

NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-14D	PZ-14D	PZ-15S	PZ-15S	PZ-15S	PZ-15S	PZ-15S	PZ-15D	PZ-15D	PZ-15D	PZ-15D	PZ-15D	PZ-15D
			9/28/15	3/30/16	6/20/14	7/23/14	4/1/15	9/28/15	3/30/16	6/20/14	7/23/14	10/6/14	11/11/14	4/1/15	6/26/15
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>														
Benzene	ug/l	5	<1.4	2.2	ND	ND	<0.27	<0.27	<0.45	0.73	ND	ND	0.37	<0.27	<0.27
Toluene	ug/l	800	<1.5	<2.5	ND	ND	<0.29	<0.29	<0.49	ND	ND	ND	10.2	<0.29	<0.29
Ethylbenzene	ug/l	700	<1.2	<2.6	ND	ND	<0.24	<0.24	<0.53	ND	ND	ND	0.43	<0.24	<0.24
Xylene, o	ug/l	2000 <sup>b</sup>	<1.1	<1.1	ND	ND	<0.22	<0.22	<0.22	ND	ND	ND	0.83	<0.22	<0.22
Xylenes	ug/l	2000	<1.1	<1.1	ND	ND	<0.22	<0.22	<0.22	ND	ND	ND	20.6	<0.22	<0.22
Xylenes, m + p	ug/l	2000 <sup>b</sup>	<2.3	<2.0	ND	ND	<0.47	<0.47	<0.40	ND	ND	ND	1.8	<0.47	<0.47
Methyl-tert-butyl-ether	ug/l	60	<1.7	<2.8	ND	ND	<0.35	<0.35	<0.57	ND	ND	ND	ND	<0.35	<0.35
Naphthalene	ug/l	100	<10	<2.3	ND	ND	<2.0	<2.0	<0.45	ND	ND	ND	ND	<2.0	<2.0
Total Trimethylbenzene	ug/l	480	<1.0	<1.2	ND	ND	<0.2	<0.2	<0.24	ND	ND	ND	ND	<0.2	<0.2
cis-1,2 - Dichloroethene	ug/l	70	9.1	<1.5	ND	ND	<0.31	<0.31	<0.29	ND	ND	ND	ND	<0.31	<0.31
Trichloroethene	ug/l	5	1.4	<2.4	ND	ND	<0.25	<0.25	<0.48	2.1	ND	ND	0.55	0.53	<0.25
Vinyl Chloride	ug/l	0.2	107	<3.4	ND	ND	<0.45	<0.45	<0.69	ND	ND	ND	ND	<0.45	<0.45

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are

NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-15D	PZ-15D	PZ-16S	PZ-16S	PZ-16S	PZ-16S	PZ-16S	PZ-16D	PZ-16D	PZ-16D	PZ-16D	PZ-16D	PZ-16D
			9/28/15	3/30/16	6/19/14	7/23/14	4/1/15	9/28/15	3/30/16	6/19/14	7/23/14	10/6/14	11/11/14	4/1/15	6/26/15
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>														
Benzene	ug/l	5	<0.27	<0.45	ND	ND	<0.27	<0.27	<4.5	0.94	0.82	0.61	0.82	0.66	0.77
Toluene	ug/l	800	<0.29	<0.49	ND	ND	<0.29	<0.29	<4.9	ND	ND	ND	ND	<0.29	<0.29
Ethylbenzene	ug/l	700	<0.24	<0.53	ND	ND	<0.24	<0.24	<5.3	ND	ND	ND	ND	<0.24	<0.24
Xylene, o	ug/l	2000 <sup>b</sup>	<0.22	<0.22	ND	ND	<0.22	<0.22	<2.2	ND	ND	ND	ND	<0.22	<0.22
Xylenes	ug/l	2000	<0.22	<0.22	ND	ND	<0.22	<0.22	<2.2	ND	ND	ND	ND	<0.22	<0.22
Xylenes, m + p	ug/l	2000 <sup>b</sup>	<0.47	<0.40	ND	ND	<0.47	<0.47	<4.0	ND	ND	ND	ND	<0.47	<0.47
Methyl-tert-butyl-ether	ug/l	60	<0.35	<0.57	ND	ND	<0.35	<0.35	<5.7	ND	ND	ND	ND	<0.35	<0.35
Naphthalene	ug/l	100	<2.0	<0.45	ND	ND	<2.0	<2.0	<4.5	ND	ND	ND	ND	<2.0	<2.0
Total Trimethylbenzene	ug/l	480	<0.2	<0.24	ND	ND	<0.2	<0.2	<2.4	ND	ND	ND	ND	<0.2	<0.2
cis-1,2 - Dichloroethene	ug/l	70	0.33	0.55	ND	ND	<0.31	<0.31	<2.9	ND	ND	ND	0.65	0.78	0.53
Trichloroethene	ug/l	5	1.4	1.5	ND	ND	<0.25	<0.25	<4.8	0.69	0.97	ND	1.1	1	1.4
Vinyl Chloride	ug/l	0.2	<0.45	<0.69	ND	ND	<0.45	<0.45	<6.9	ND	ND	ND	ND	<0.45	<0.45

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-16D	PZ-16D	PZ-17S	PZ-17S	PZ-17S	PZ-17S	PZ-17S	PZ-17S	PZ-17D	PZ-17D	PZ-17D	PZ-17D	PZ-17D	PZ-17D
			9/28/15	3/30/16	10/6/14	11/11/14	4/1/15	6/26/15	9/28/15	3/30/16	10/6/14	11/11/14	4/1/15	6/26/15	9/28/15	11/24/15
Volatile Organic Compounds (µg/L):	Units															
Benzene	ug/l	5	0.77	<0.45	ND	ND	<0.27	<0.27	<0.27	<0.45	0.76	1.1	0.48	0.37	0.52	1.6
Toluene	ug/l	800	<0.29	<0.49	ND	ND	<0.29	<0.29	<0.29	<0.49	ND	ND	<0.29	<0.29	<0.29	<3.3
Ethylbenzene	ug/l	700	<0.24	<0.53	ND	ND	<0.24	<0.24	<0.24	<0.53	ND	ND	<0.24	<0.24	<0.24	<1.2
Xylene, o	ug/l	2000 <sup>b</sup>	<0.22	<0.22	ND	ND	<0.22	<0.22	<0.22	<0.22	ND	ND	<0.22	<0.22	<0.22	<1.1
Xylenes	ug/l	2000	<0.22	<0.22	ND	ND	<0.22	<0.22	<0.22	<0.22	ND	ND	<0.22	<0.22	<0.22	<1.1
Xylenes, m + p	ug/l	2000 <sup>b</sup>	<0.47	<0.40	ND	ND	<0.47	<0.47	<0.47	<0.40	ND	ND	<0.47	<0.47	<0.47	<4.1
Methyl-tert-butyl-ether	ug/l	60	<0.35	<0.57	ND	ND	<0.35	<0.35	<0.35	1.1	ND	ND	<0.35	<0.35	<0.35	<1.7
Naphthalene	ug/l	100	<2.0	<0.45	ND	ND	<2.0	<2.0	<2.0	<0.45	ND	ND	<2.0	<2.0	<2.0	<3.0
Total Trimethylbenzene	ug/l	480	<0.2	<0.24	ND	ND	<0.2	<0.2	<0.2	<0.24	ND	ND	<0.2	<0.2	<0.2	<1.4
cis-1,2 - Dichloroethene	ug/l	70	0.56	<0.29	ND	ND	<0.31	<0.31	<0.31	<0.29	<0.84	1.8	1.5	1.5	2.5	6.6
Trichloroethene	ug/l	5	1.3	<0.48	ND	ND	<0.25	<0.25	<0.25	<0.48	7.9	18.7	12.3	14	10.4	16.5
Vinyl Chloride	ug/l	0.2	<0.45	<0.69	ND	ND	<0.45	<0.45	<0.45	<0.69	ND	ND	<0.45	<0.45	<0.45	<2.3

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

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Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-17D	PZ-18S	PZ-18S	PZ-18S	PZ-18D	PZ-18D	PZ-18D	PZ-18D	PZ-19	PZ-19	PZ-19	PZ-20	PZ-20	PZ-20	PZ-21
			3/30/16	6/5/15	9/28/15	3/30/16	5/6/15	9/28/15	11/24/15	3/30/16	5/6/15	9/28/15	3/30/16	5/6/15	9/28/15	3/30/16	5/6/15
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>																
Benzene	ug/l	5	<2.2	<1.4	<0.27	<0.45	44.8	59	54.7	40.4	114	0.58	<0.45	120	38.7	<0.45	254
Toluene	ug/l	800	<2.5	<1.5	<0.29	<0.49	<2.9	<15	<6.6	<0.98	<2.9	<0.29	<0.49	0.36	<1.5	<0.49	<2.9
Ethylbenzene	ug/l	700	<2.6	<1.2	<0.24	<0.53	<2.4	<12	<2.4	1.1	<2.4	<0.24	<0.53	1.8	<1.2	<0.53	<2.4
Xylene, o	ug/l	2000 <sup>b</sup>	<1.1	NA	NA	NA	NA	NA	<2.2	NA	NA	NA	<0.22	NA	NA	NA	NA
Xylenes	ug/l	2000	<1.1	<1.1	<0.22	<0.22	<2.2	<11	<2.2	1.1	<2.2	<0.22	<0.22	1.6	<1.1	<0.22	<2.2
Xylenes, m + p	ug/l	2000 <sup>b</sup>	<2.0	NA	NA	NA	NA	NA	<8.2	NA	NA	NA	<0.40	NA	NA	NA	NA
Methyl-tert-butyl-ether	ug/l	60	<2.8	<1.7	<0.35	<0.57	333	386	294	263	29.9	<0.35	<0.57	301	104	30.7	154
Naphthalene	ug/l	100	<2.3	<1.0	<2.0	<0.45	<2.0	<100	<6.1	<0.90	<2.0	<2.0	<0.45	<2.0	<1.0	<0.45	<2.0
Total Trimethylbenzene	ug/l	480	<1.2	<1.0	<0.2	<0.24	<2.0	<10	<2.9	<0.47	<2.0	<0.2	<0.24	<0.2	<1.0	<0.24	<2.0
cis-1,2 - Dichloroethene	ug/l	70	9.2	NA	NA	NA	NA	NA	<5.4	NA	NA	NA	<0.29	NA	NA	NA	NA
Trichloroethene	ug/l	5	11.7	NA	NA	NA	NA	NA	<2.5	NA	NA	NA	<0.48	NA	NA	NA	NA
Vinyl Chloride	ug/l	0.2	<3.4	NA	NA	NA	NA	NA	<4.5	NA	NA	NA	<0.69	NA	NA	NA	NA

Notes:

Only chemicals of concern are presented on this Table.

<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

ES - Enforcement Standard

Acetone, 2-Butanone, and Methylene Chloride are considered by the EPA to be common laboratory contaminants, therefore, detections of those compounds are

NA - Not analyzed

Shading indicates an ES exceedance

Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.



**TABLE 2**  
**Summary of Recent Monitoring Well Sampling Data**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

Compounds		ES	PZ-21	PZ-21	PZ-22S	PZ-22S	PZ-22S	PZ-22D	PZ-22D	PZ-22D	PZ-22D
			9/28/15	3/30/16	6/5/15	9/28/15	3/30/16	6/5/15	9/28/15	11/24/15	3/30/16
<b>Volatile Organic Compounds (µg/L):</b>	<b>Units</b>										
Benzene	ug/l	5	280	45.7	<1.4	<0.27	<0.45	12.9	<0.27	26	<0.45
Toluene	ug/l	800	<15	<2.5	<1.5	<0.29	<0.49	<1.5	<0.29	<3.3	<0.49
Ethylbenzene	ug/l	700	<12	<2.6	<1.2	<0.24	<0.53	<1.2	<0.24	1.3	<0.53
Xylene, o	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	<1.1	NA
Xylenes	ug/l	2000	<11	<1.1	<1.1	<0.22	<0.22	<1.1	<0.22	1.3	<0.22
Xylenes, m + p	ug/l	2000 <sup>b</sup>	NA	NA	NA	NA	NA	NA	NA	<4.1	NA
Methyl-tert-butyl-ether	ug/l	60	154	22.1	<1.7	<0.35	<0.57	257	<0.35	230	1.0
Naphthalene	ug/l	100	<100	<2.3	<10	<2.0	<0.45	<10	<2.0	<3.0	<0.45
Total Trimethylbenzene	ug/l	480	<10	<1.2	<1.0	<0.2	<0.24	<1.0	<0.2	<1.4	<0.24
cis-1,2 - Dichloroethene	ug/l	70	NA	NA	NA	NA	NA	NA	NA	<2.7	NA
Trichloroethene	ug/l	5	NA	NA	NA	NA	NA	NA	NA	<1.2	NA
Vinyl Chloride	ug/l	0.2	NA	NA	NA	NA	NA	NA	NA	<2.3	NA

Notes:

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<sup>b</sup> The value is for total xylenes

µg/L - micrograms per liter

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Screening criteria from Public Health Groundwater Quality Standards, NR140, January 2012.

**POTENTIOMETRIC  
SURFACE MAP  
MARCH 2016**

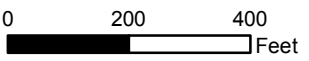
**Figure 1**

**Tyco Marinette FTC  
Marinette, Wisconsin**



- Well
- Inferred Contour
- Interpolated Contour
- Buildings and Surface Features
- Tyco Property Boundary\*

Note:  
\* Parcel Boundary from  
Marinette County Land records  
data (8/1/2014)  
S: designates a shallow water  
table well  
D: designates a deep well



**Spatial Projection:**  
 Coordinate System:  
 Wisconsin State  
 Plane North  
 FIPS Zone: 4801  
 Units: US Survey Feet  
 Datum: NAD83

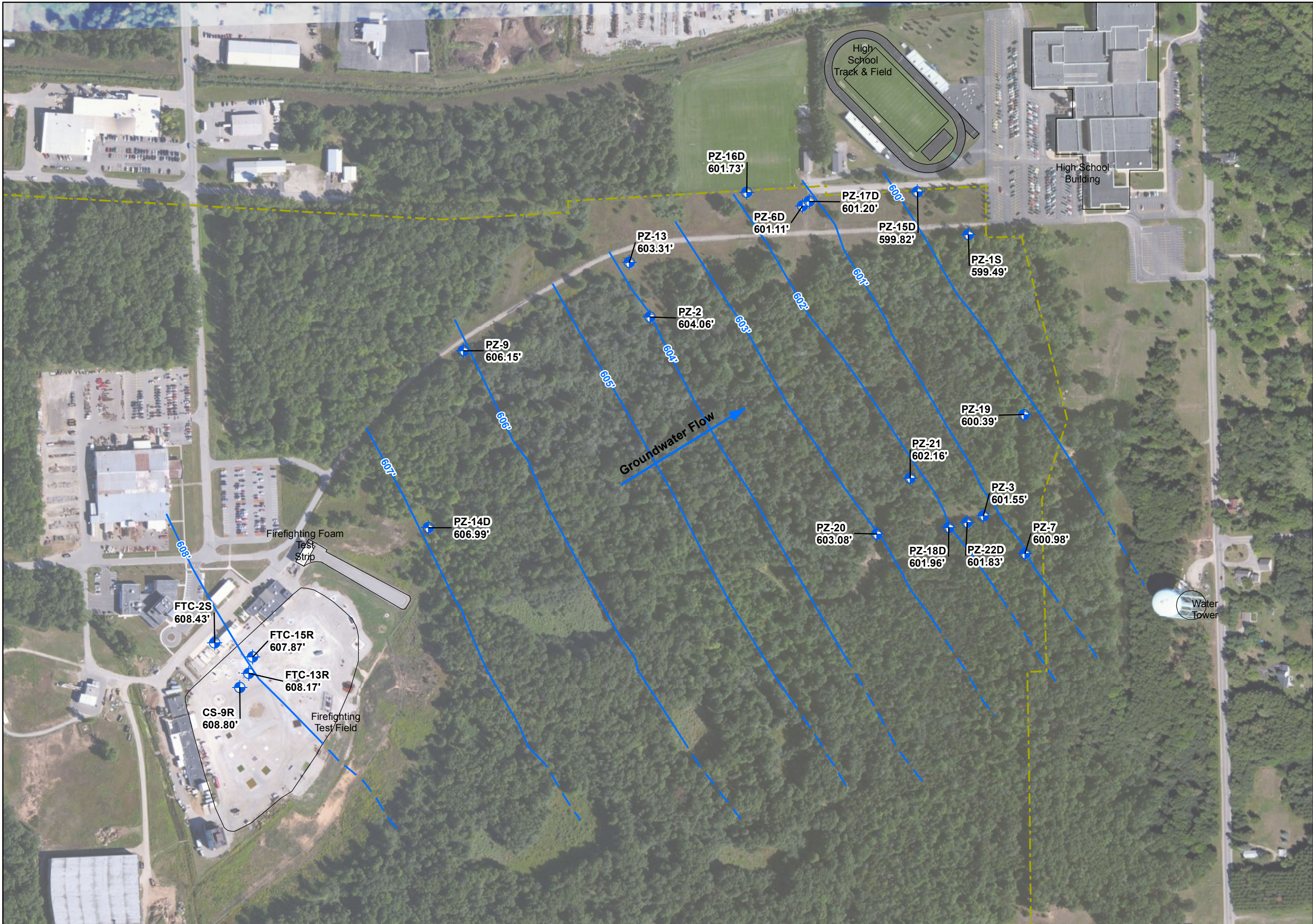
**Plot Info:**  
 File: FTC\_Site  
 FTC\_Site  
 Project No.: 2008-0493  
 Date: 8 June 2016  
 Operator: EJI  
 Reviewed By: AKR

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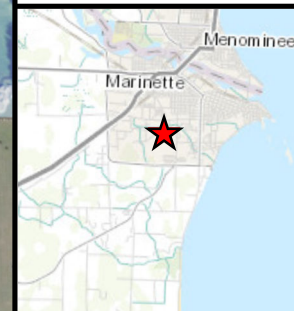
1217 Bandana Boulevard North  
 Saint Paul, Minnesota  
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**GROUNDWATER  
BENZENE  
DISTRIBUTION**

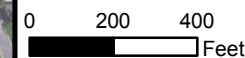
Figure 2

Tyco Marinette FTC  
Marinette, Wisconsin



- Sample Location
- BIW Injection Well
- Benzene Isoconcentration Contour (ug/L)
- Buildings and Surface Features
- Tyco Property Boundary\*

Note:  
\* Parcel Boundary from Marinette County Land records data (8/1/2014)  
S: designates a shallow water table well  
D: designates a deep well  
All results are reported in (ug/L)

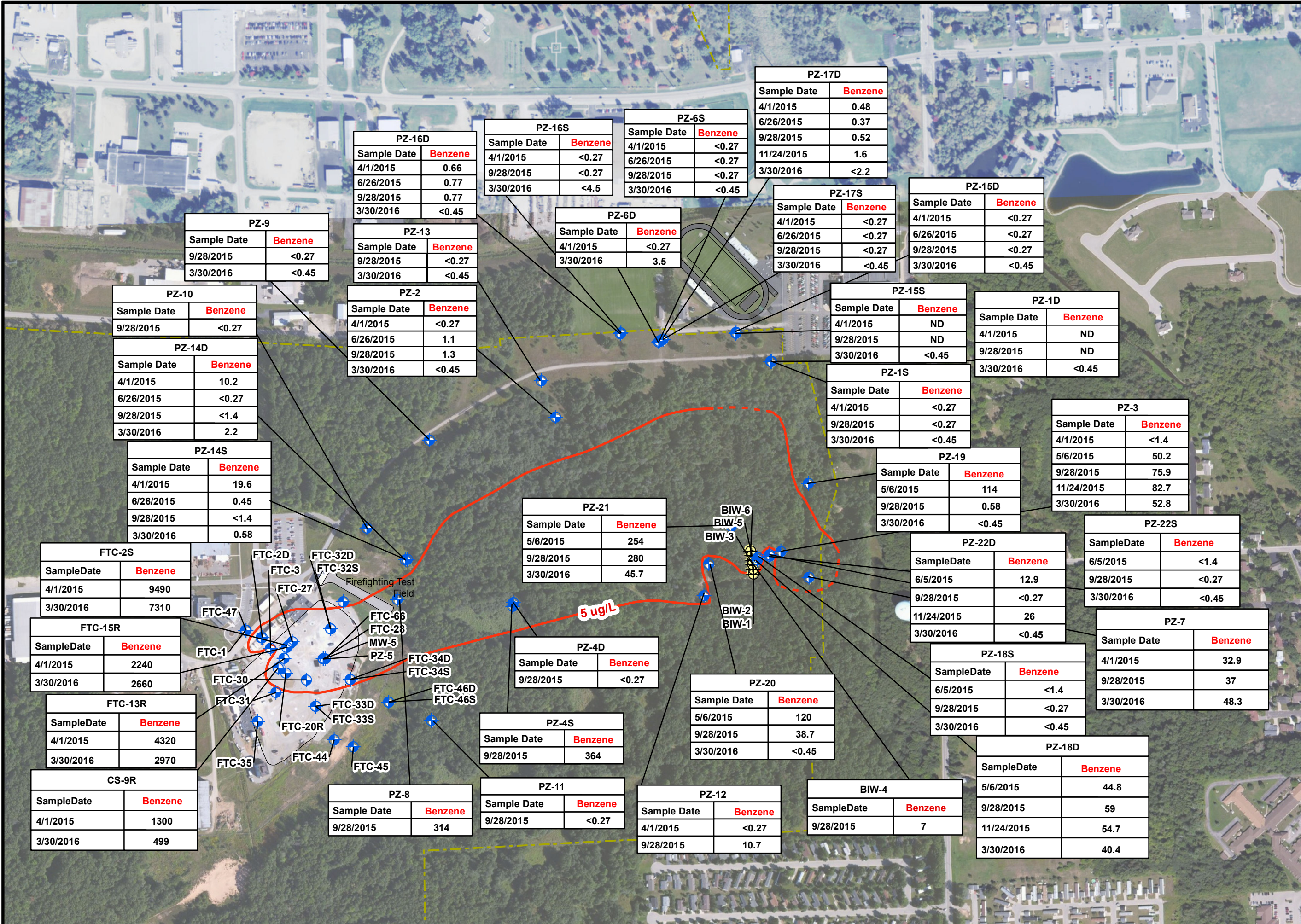


**Spatial Projection:**  
Coordinate System: Wisconsin State Plane North  
FIPS Zone: 4801  
Units: US Survey Feet  
Datum: NAD83

**Plot Info:**  
File: Figure3\_Results\_20160104\_Benzene  
Project No.: 2008-0493  
Date: 2 June 2016  
Operator: EJI  
Reviewed By: AKR

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Sample Date	Benzene
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	0.66
6/26/2015	0.77
9/28/2015	0.77
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	<0.27
9/28/2015	<0.27
3/30/2016	<4.5

Sample Date	Benzene
4/1/2015	<0.27
6/26/2015	<0.27
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	0.48
6/26/2015	0.37
9/28/2015	0.52
11/24/2015	1.6
3/30/2016	<2.2

Sample Date	Benzene
4/1/2015	<0.27
6/26/2015	<0.27
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	<0.27
6/26/2015	<0.27
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
9/28/2015	<0.27
4/1/2015	10.2
6/26/2015	<0.27
9/28/2015	<1.4
3/30/2016	2.2

Sample Date	Benzene
4/1/2015	<0.27
6/26/2015	1.1
9/28/2015	1.3
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	<0.27
6/26/2015	1.1
9/28/2015	1.3
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	<0.27
3/30/2016	3.5

Sample Date	Benzene
4/1/2015	ND
9/28/2015	ND
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	ND
9/28/2015	ND
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	ND
9/28/2015	ND
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	ND
9/28/2015	ND
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	19.6
6/26/2015	0.45
9/28/2015	<1.4
3/30/2016	0.58

Sample Date	Benzene
4/1/2015	9490
3/30/2016	7310

Sample Date	Benzene
4/1/2015	2240
3/30/2016	2660

Sample Date	Benzene
4/1/2015	4320
3/30/2016	2970

Sample Date	Benzene
4/1/2015	1300
3/30/2016	499

Sample Date	Benzene
5/6/2015	254
9/28/2015	280
3/30/2016	45.7

Sample Date	Benzene
5/6/2015	114
9/28/2015	0.58
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	<1.4
5/6/2015	50.2
9/28/2015	75.9
11/24/2015	82.7
3/30/2016	52.8

Sample Date	Benzene
6/5/2015	<1.4
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	2240
3/30/2016	2660

Sample Date	Benzene
4/1/2015	4320
3/30/2016	2970

Sample Date	Benzene
9/28/2015	<0.27

Sample Date	Benzene
5/6/2015	120
9/28/2015	38.7
3/30/2016	<0.45

Sample Date	Benzene
6/5/2015	<1.4
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
4/1/2015	32.9
9/28/2015	37
3/30/2016	48.3

Sample Date	Benzene
6/5/2015	<1.4
9/28/2015	<0.27
3/30/2016	<0.45

Sample Date	Benzene
5/6/2015	44.8
9/28/2015	59
11/24/2015	54.7
3/30/2016	40.4

Sample Date	Benzene
9/28/2015	314

Sample Date	Benzene
9/28/2015	<0.27

Sample Date	Benzene
4/1/2015	<0.27
9/28/2015	10.7

Sample Date	Benzene
9/28/2015	7

**GROUNDWATER  
MTBE  
DISTRIBUTION**

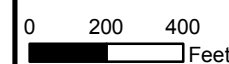
Figure 3

Tyco Marinette FTC  
Marinette, Wisconsin



- Sample Location
- BIW Injection Well
- MTBE Isoconcentration Contour (ug/L)
- Buildings and Surface Features
- Tyco Property Boundary\*

Note:  
\* Parcel Boundary from Marinette County Land records data (8/1/2014)  
S: designates a shallow water table well  
D: designates a deep well  
All Results are reported in (ug/L)

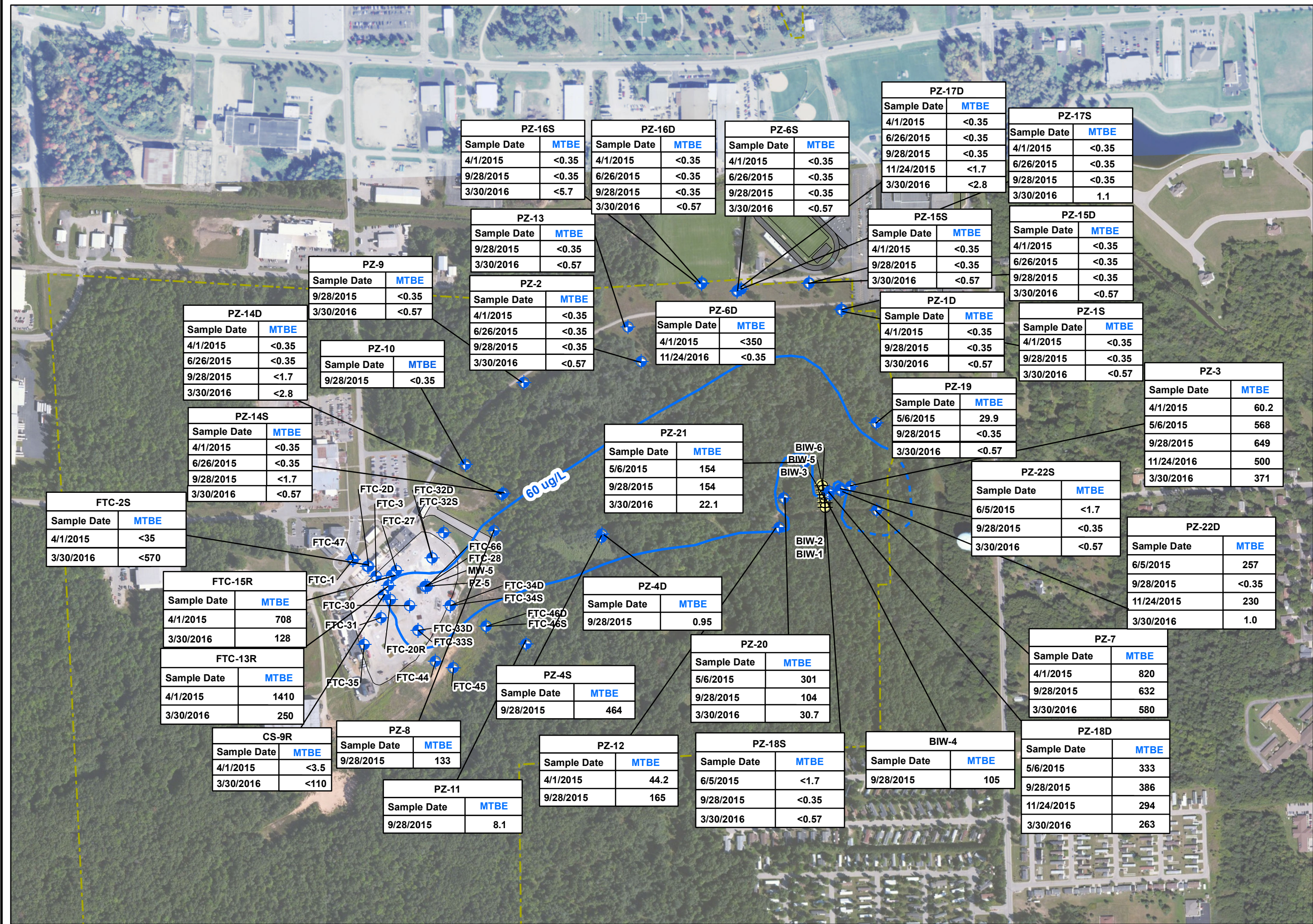


**Spatial Projection:**  
 Coordinate System: Wisconsin State Plane North  
 FIPS Zone: 4801  
 Units: US Survey Feet  
 Datum: NAD83

**Plot Info:**  
 File: Figure2\_Results\_20160602\_MTBE  
 Project No.: 2008-0493  
 Date: 2 June 2016  
 Operator: EJI  
 Reviewed By: AKR

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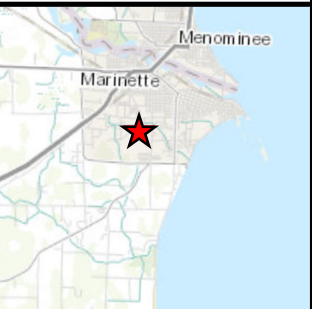


Document Path: R:\Projects\MNO\O&M\2008\0493-TycoMarinette\FTC\DataAnalysis\GISData\Projects\Figure2\_Results\_20160602\_MTBE.mxd

**GROUNDWATER  
TCE  
DISTRIBUTION**

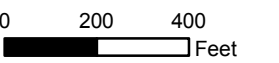
Figure 4

Tyco Marinette FTC  
Marinette, Wisconsin



- Sample Location
- BIW Injection Well
- TCE Isoconcentration Contour (ug/L)
- Buildings and Surface Features
- Tyco Property Boundary\*

Note:  
No TCE sample information available for the following well locations: CS-9R, PTC-13R, FTC-15R, FTC-2S  
\* Parcel Boundary from Marinette County Land records data (8/1/2014)  
S: designates a shallow water table well  
D: designates a deep well  
All Results are reported in (ug/L)



**Spatial Projection:**

- Coordinate System: Wisconsin State Plane North
- FIPS Zone: 4801
- Units: US Survey Feet
- Datum: NAD83

**Plot Info:**

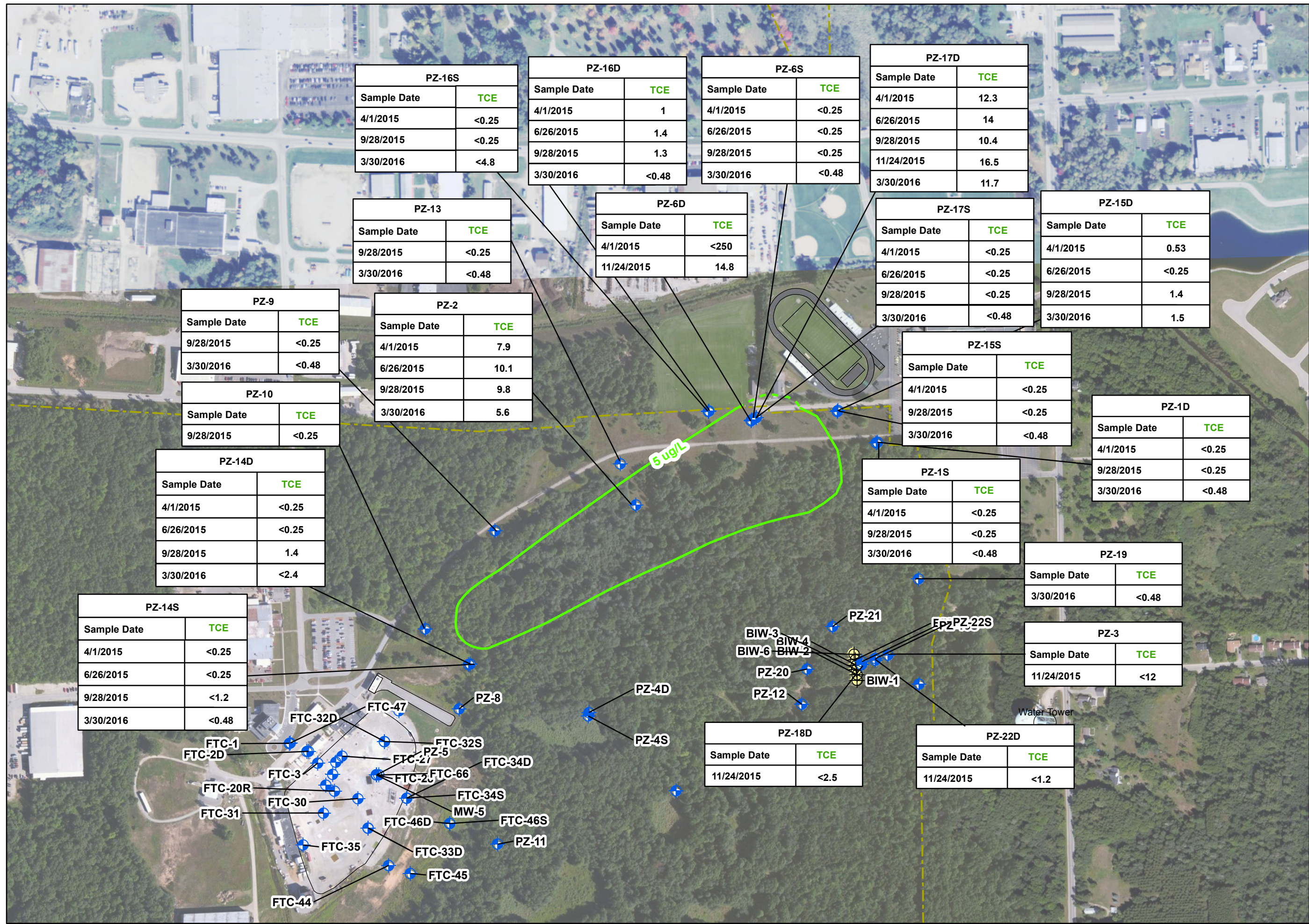
File: Figure3\_Results\_20160602\_TCE  
Project No.: 2008-0493  
Date: 3 June 2016  
Operator: EJJ  
Reviewed By: AKR

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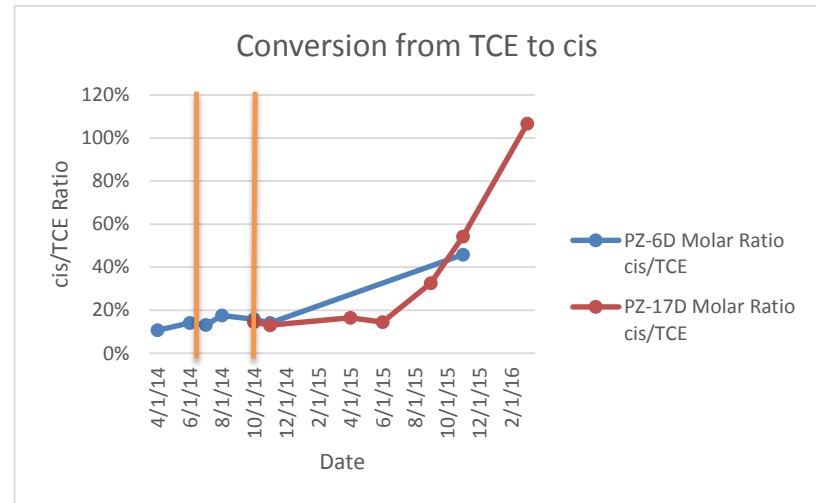
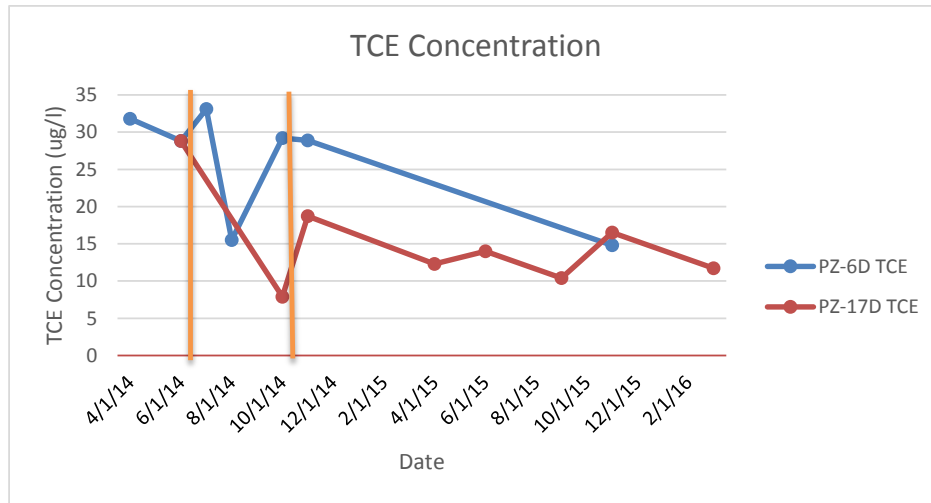
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**Figure 5**  
**ERD Trend Analysis**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

		4/23/14	6/19/14	7/23/14	8/26/14	10/6/14	11/11/14	4/1/15	6/26/15	9/28/15	11/24/15	3/30/16
PZ-6D	TCE	<b>31.8</b>	<b>28.8</b>	<b>33.1</b>	<b>15.5</b>	<b>29.2</b>	<b>28.9</b>				<b>14.8</b>	
PZ-6D	cis-1,2-DCE	2.5	3	3.2	2	3.4	3				5	
PZ-17D	TCE		<b>28.8</b>			<b>7.9</b>	<b>18.7</b>	<b>12.3</b>	<b>14</b>	<b>10.4</b>	<b>16.5</b>	<b>11.7</b>
PZ-17D	cis-1,2-DCE					0.42	1.8	1.5	1.5	2.5	6.6	9.2
PZ-6D	Molar Ratio cis/TCE	10.7%	14.1%	13.1%	17.5%	15.8%	14.1%				45.8%	
PZ-17D	Molar Ratio cis/TCE					14.4%	13.0%	16.5%	14.5%	32.6%	54.2%	106.6%



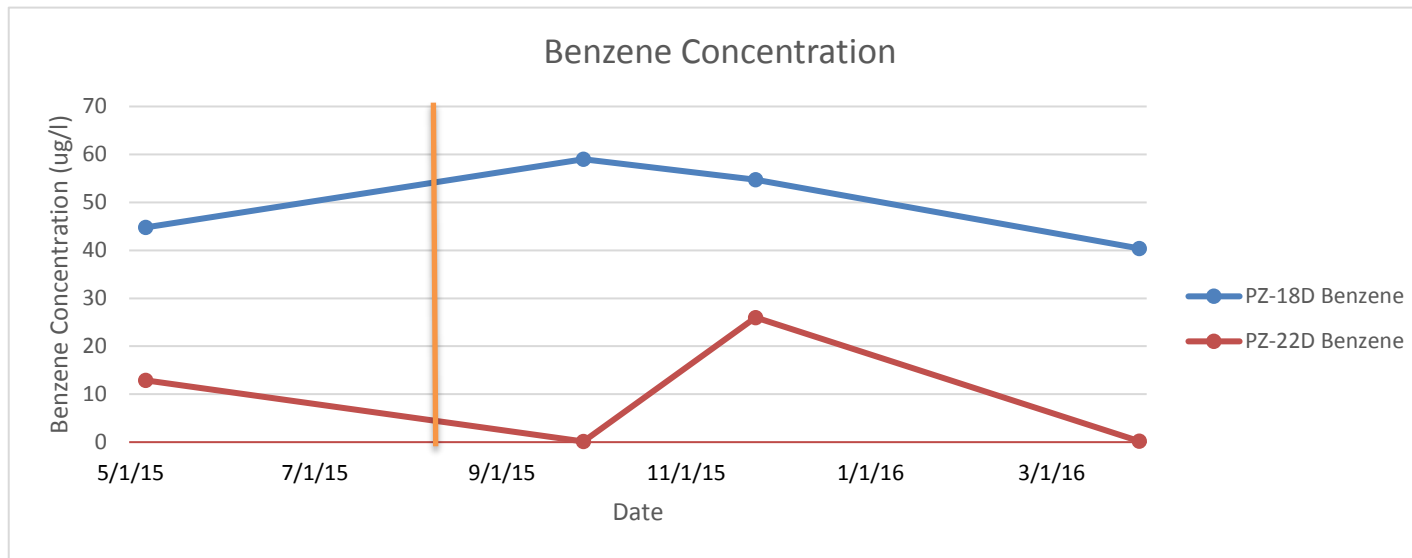
Vertical lines indicate dates of ERD injection (June 24, 2014 and October 7, 2014)

Values below laboratory detection limit were input as 50% of the less-than value, and are shown in italics.

**Bold indicates an exceedance of the WDNR Enforcement Standard.**

**Figure 6**  
**ISCO Trend Analysis**  
**Tyco Safety Products**  
**FTC**  
**Marinette, Wisconsin**

		5/6/15	9/28/15	11/24/15	3/30/16
PZ-18D	Benzene	<b>44.8</b>	<b>59</b>	<b>54.7</b>	<b>40.4</b>
PZ-22D	Benzene	<b>12.9</b>	<i>0.135</i>	<b>26</b>	<i>0.225</i>



Vertical line indicates date of ISCO injection (Week of August 10, 2015)

Values below laboratory detection limit were input as 50% of the less-than value, and are shown in italics.

**Bold indicates an exceedance of the WDNR Enforcement Standard.**

### Technical Report for

## Tyco International

OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
493

SGS Accutest Job Number: MC45170

Sampling Dates: 03/30/16 - 03/31/16

### Report to:

O&M, Inc.  
450 Montbrook Lane  
Knoxville, TN 37919-2705  
efrauen@oandm-inc.com

ATTN: Eric Frauen

Total number of pages in report: 87



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

**H. (Brad) Madadian**  
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)  
DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



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## Sample Summary

Tyco International

Job No: MC45170

OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Project No: 493

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC45170-1	03/30/16	09:00 EF	04/02/16	AQ	Ground Water	PZ-2
MC45170-2	03/30/16	09:35 EF	04/02/16	AQ	Ground Water	PZ-13
MC45170-3	03/30/16	10:15 EF	04/02/16	AQ	Ground Water	PZ-16D
MC45170-4	03/30/16	10:32 EF	04/02/16	AQ	Ground Water	PZ-16S
MC45170-5	03/30/16	13:55 EF	04/02/16	AQ	Ground Water	PZ-15S
MC45170-6	03/30/16	14:10 EF	04/02/16	AQ	Ground Water	PZ-1D
MC45170-7	03/30/16	14:55 EF	04/02/16	AQ	Ground Water	PZ-18S
MC45170-8	03/30/16	15:40 EF	04/02/16	AQ	Ground Water	PZ-22S
MC45170-9	03/30/16	16:12 EF	04/02/16	AQ	Ground Water	PZ-21
MC45170-10	03/30/16	17:05 EF	04/02/16	AQ	Ground Water	PZ-14D
MC45170-11	03/30/16	10:24 EF	04/02/16	AQ	Ground Water	PZ-19
MC45170-12	03/30/16	10:54 EF	04/02/16	AQ	Ground Water	PZ-3
MC45170-13	03/30/16	11:25 EF	04/02/16	AQ	Ground Water	PZ-7



## Sample Summary

(continued)

Tyco International

Job No: MC45170

OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Project No: 493

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC45170-14	03/30/16	12:00 EF	04/02/16	AQ	Ground Water	PZ-17S
MC45170-15	03/30/16	13:56 EF	04/02/16	AQ	Ground Water	PZ-15D
MC45170-16	03/30/16	14:18 EF	04/02/16	AQ	Ground Water	PZ-1S
MC45170-17	03/30/16	15:08 EF	04/02/16	AQ	Ground Water	PZ-18D
MC45170-18	03/30/16	15:35 EF	04/02/16	AQ	Ground Water	PZ-22D
MC45170-19	03/30/16	16:10 EF	04/02/16	AQ	Ground Water	PZ-20
MC45170-20	03/30/16	17:05 EF	04/02/16	AQ	Ground Water	PZ-14S
MC45170-21	03/31/16	09:35 CF	04/02/16	AQ	Ground Water	FTC-2S
MC45170-22	03/31/16	09:42 EF	04/02/16	AQ	Ground Water	PZ-9
MC45170-23	03/31/16	10:30 EF	04/02/16	AQ	Ground Water	FTC-13R
MC45170-24	03/31/16	10:40 EF	04/02/16	AQ	Ground Water	FTC-15R
MC45170-25	03/31/16	11:25 EF	04/02/16	AQ	Ground Water	CS-9R
MC45170-26	03/30/16	12:00 CF	04/02/16	AQ	Ground Water	PZ-6S



## Sample Summary

(continued)

Tyco International

**Job No:** MC45170

OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
Project No: 493

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
MC45170-27	03/30/16	12:20 EF	04/02/16	AQ	Ground Water	PZ-17D

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Tyco International

**Job No:** MC45170

**Site:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Mari

**Report Date** 4/15/2016 12:04:39 P

27 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on between 03/30/2016 and 03/31/2016 and were received at SGS Accutest New England on 04/02/2016 properly preserved, at 7 Deg. C and intact. These Samples received a job number of MC45170. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260C

**Matrix:** AQ

**Batch ID:** MSN3689

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC45170-4, -9, -10, -27: Elevated RL due to dilution required for matrix interference (foaming).
- MC45170-2, -3, -14, -27 for Acetone: Initial Calibration verification outside of acceptance criteria. Result may be biased high.

**Matrix:** AQ

**Batch ID:** MSN3690

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Matrix:** AQ

**Batch ID:** MSN3691

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC45166-5MS, MC45166-5MSD were used as the QC samples indicated.

SGS Accutest New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Laboratory Director for SGS Accutest New England or assignee as verified by the signature on the cover page has authorized the release of this report(MC45170).

Friday, April 15, 2016

Page 1 of 1

## Summary of Hits

**Job Number:** MC45170  
**Account:** Tyco International  
**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
**Collected:** 03/30/16 thru 03/31/16

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

### MC45170-1 PZ-2

cis-1,2-Dichloroethene	2.6	1.0	0.29	ug/l	SW846 8260C
Trichloroethene	5.6	1.0	0.48	ug/l	SW846 8260C

### MC45170-2 PZ-13

Acetone <sup>a</sup>	18.4	10	2.8	ug/l	SW846 8260C
----------------------	------	----	-----	------	-------------

### MC45170-3 PZ-16D

Acetone <sup>a</sup>	3.2 J	10	2.8	ug/l	SW846 8260C
----------------------	-------	----	-----	------	-------------

### MC45170-4 PZ-16S

No hits reported in this sample.

### MC45170-5 PZ-15S

No hits reported in this sample.

### MC45170-6 PZ-1D

No hits reported in this sample.

### MC45170-7 PZ-18S

No hits reported in this sample.

### MC45170-8 PZ-22S

No hits reported in this sample.

### MC45170-9 PZ-21

Benzene <sup>b</sup>	45.7	2.5	2.2	ug/l	SW846 8260C
Methyl Tert Butyl Ether <sup>b</sup>	22.1	5.0	2.8	ug/l	SW846 8260C

### MC45170-10 PZ-14D

No hits reported in this sample.

### MC45170-11 PZ-19

No hits reported in this sample.

## Summary of Hits

**Job Number:** MC45170  
**Account:** Tyco International  
**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
**Collected:** 03/30/16 thru 03/31/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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**MC45170-12 PZ-3**

Benzene		52.8	1.0	0.89	ug/l	SW846 8260C
Ethylbenzene		1.9 J	2.0	1.1	ug/l	SW846 8260C
Xylene (total)		4.6	2.0	0.43	ug/l	SW846 8260C
Methyl Tert Butyl Ether		371	10	5.7	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		0.98 J	10	0.47	ug/l	SW846 8260C

**MC45170-13 PZ-7**

Benzene		48.3	5.0	4.5	ug/l	SW846 8260C
Ethylbenzene		8.1 J	10	5.3	ug/l	SW846 8260C
Xylene (total)		2.9 J	10	2.2	ug/l	SW846 8260C
Methyl Tert Butyl Ether		580	10	5.7	ug/l	SW846 8260C

**MC45170-14 PZ-17S**

Acetone <sup>a</sup>		22.2	10	2.8	ug/l	SW846 8260C
Methyl Tert Butyl Ether		1.1	1.0	0.57	ug/l	SW846 8260C

**MC45170-15 PZ-15D**

cis-1,2-Dichloroethene		0.55 J	1.0	0.29	ug/l	SW846 8260C
Trichloroethene		1.5	1.0	0.48	ug/l	SW846 8260C

**MC45170-16 PZ-1S**

No hits reported in this sample.

**MC45170-17 PZ-18D**

Benzene		40.4	1.0	0.89	ug/l	SW846 8260C
Ethylbenzene		1.1 J	2.0	1.1	ug/l	SW846 8260C
Xylene (total)		1.1 J	2.0	0.43	ug/l	SW846 8260C
Methyl Tert Butyl Ether		263	2.0	1.1	ug/l	SW846 8260C

**MC45170-18 PZ-22D**

Methyl Tert Butyl Ether		1.0	1.0	0.57	ug/l	SW846 8260C
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**MC45170-19 PZ-20**

Methyl Tert Butyl Ether		30.7	1.0	0.57	ug/l	SW846 8260C
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## Summary of Hits

**Job Number:** MC45170  
**Account:** Tyco International  
**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
**Collected:** 03/30/16 thru 03/31/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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**MC45170-20 PZ-14S**

Benzene	0.58	0.50	0.45	ug/l	SW846 8260C
Ethylbenzene	2.4	1.0	0.53	ug/l	SW846 8260C
Naphthalene	7.0	5.0	0.45	ug/l	SW846 8260C
Toluene	3.9	1.0	0.49	ug/l	SW846 8260C
1,2,4-Trimethylbenzene	8.6	5.0	0.24	ug/l	SW846 8260C
1,3,5-Trimethylbenzene	2.8 J	5.0	0.41	ug/l	SW846 8260C
m,p-Xylene	13.9	1.0	0.40	ug/l	SW846 8260C
o-Xylene	6.1	1.0	0.22	ug/l	SW846 8260C
Xylene (total)	20.0	1.0	0.22	ug/l	SW846 8260C

**MC45170-21 FTC-2S**

Benzene	7310	500	450	ug/l	SW846 8260C
Toluene	23000	1000	490	ug/l	SW846 8260C
Ethylbenzene	2620	1000	530	ug/l	SW846 8260C
Xylene (total)	13300	1000	220	ug/l	SW846 8260C
Naphthalene	493 J	5000	450	ug/l	SW846 8260C
1,2,4-Trimethylbenzene	1660 J	5000	240	ug/l	SW846 8260C
1,3,5-Trimethylbenzene	458 J	5000	410	ug/l	SW846 8260C

**MC45170-22 PZ-9**

No hits reported in this sample.

**MC45170-23 FTC-13R**

Benzene	2970	100	89	ug/l	SW846 8260C
Toluene	32400	200	98	ug/l	SW846 8260C
Ethylbenzene	464	200	110	ug/l	SW846 8260C
Xylene (total)	3510	200	43	ug/l	SW846 8260C
Methyl Tert Butyl Ether	250	200	110	ug/l	SW846 8260C
Naphthalene	101 J	1000	90	ug/l	SW846 8260C
1,2,4-Trimethylbenzene	398 J	1000	47	ug/l	SW846 8260C
1,3,5-Trimethylbenzene	131 J	1000	83	ug/l	SW846 8260C

**MC45170-24 FTC-15R**

Benzene	2660	50	45	ug/l	SW846 8260C
Toluene	35500	250	120	ug/l	SW846 8260C
Ethylbenzene	757	100	53	ug/l	SW846 8260C
Xylene (total)	7440	100	22	ug/l	SW846 8260C
Methyl Tert Butyl Ether	128	100	57	ug/l	SW846 8260C
Naphthalene	270 J	500	45	ug/l	SW846 8260C



## Summary of Hits

**Job Number:** MC45170  
**Account:** Tyco International  
**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI  
**Collected:** 03/30/16 thru 03/31/16

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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1,2,4-Trimethylbenzene		1100	500	24	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		297 J	500	41	ug/l	SW846 8260C

### MC45170-25 CS-9R

Benzene		499	100	89	ug/l	SW846 8260C
Toluene		13900	200	98	ug/l	SW846 8260C
Ethylbenzene		482	200	110	ug/l	SW846 8260C
Xylene (total)		3570	200	43	ug/l	SW846 8260C
Naphthalene		285 J	1000	90	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		483 J	1000	47	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		150 J	1000	83	ug/l	SW846 8260C

### MC45170-26 PZ-6S

No hits reported in this sample.

### MC45170-27 PZ-17D

Acetone <sup>c</sup>		73.0	50	14	ug/l	SW846 8260C
2-Butanone (MEK) <sup>d</sup>		40.8 J	50	9.8	ug/l	SW846 8260C
cis-1,2-Dichloroethene <sup>d</sup>		9.2	5.0	1.5	ug/l	SW846 8260C
Iodomethane <sup>d</sup>		19.1 J	25	3.9	ug/l	SW846 8260C
Trichloroethene <sup>d</sup>		11.7	5.0	2.4	ug/l	SW846 8260C

- (a) Initial Calibration verification outside of acceptance criteria. Result may be biased high.
- (b) Elevated RL due to dilution required for matrix interference (foaming).
- (c) Elevated RL due to dilution required for matrix interference. Initial Calibration verification outside of acceptance criteria. Result may be biased high.
- (d) Elevated RL due to dilution required for matrix interference.

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b> PZ-2		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-1		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100867.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.6	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-2		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-1		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	105%		77-124%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-13		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-2		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100868.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone <sup>a</sup>	18.4	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	PZ-13	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-2	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-13		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-2		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

(a) Initial Calibration verification outside of acceptance criteria. Result may be biased high.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-16D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-3		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100869.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone <sup>a</sup>	3.2	10	2.8	ug/l	J
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PZ-16D	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-3	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-16D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-3		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

(a) Initial Calibration verification outside of acceptance criteria. Result may be biased high.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> PZ-16S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-4		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N100883.D	10	04/09/16	MC	n/a	n/a	MSN3689
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	28	ug/l	
71-43-2	Benzene	ND	5.0	4.5	ug/l	
108-86-1	Bromobenzene	ND	50	3.5	ug/l	
74-97-5	Bromochloromethane	ND	50	3.4	ug/l	
75-27-4	Bromodichloromethane	ND	10	3.1	ug/l	
75-25-2	Bromoform	ND	10	3.3	ug/l	
74-83-9	Bromomethane	ND	20	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	20	ug/l	
104-51-8	n-Butylbenzene	ND	50	5.9	ug/l	
135-98-8	sec-Butylbenzene	ND	50	5.4	ug/l	
98-06-6	tert-Butylbenzene	ND	50	5.8	ug/l	
75-15-0	Carbon disulfide	ND	50	12	ug/l	
56-23-5	Carbon tetrachloride	ND	10	6.6	ug/l	
108-90-7	Chlorobenzene	ND	10	3.0	ug/l	
75-00-3	Chloroethane	ND	20	6.2	ug/l	
67-66-3	Chloroform	ND	10	4.1	ug/l	
74-87-3	Chloromethane	ND	20	8.3	ug/l	
95-49-8	o-Chlorotoluene	ND	50	4.9	ug/l	
106-43-4	p-Chlorotoluene	ND	50	4.7	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	9.6	ug/l	
124-48-1	Dibromochloromethane	ND	10	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	1.3	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	3.8	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	4.6	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	4.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	6.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	6.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	4.8	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	6.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	2.9	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	6.9	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> PZ-16S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-4		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	50	6.9	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	8.4	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	5.4	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	2.6	ug/l	
100-41-4	Ethylbenzene	ND	10	5.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	10	ug/l	
591-78-6	2-Hexanone	ND	100	3.6	ug/l	
74-88-4	Iodomethane	ND	50	7.8	ug/l	
98-82-8	Isopropylbenzene	ND	50	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	5.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	5.7	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	5.0	ug/l	
74-95-3	Methylene bromide	ND	50	2.3	ug/l	
75-09-2	Methylene chloride	ND	20	18	ug/l	
91-20-3	Naphthalene	ND	50	4.5	ug/l	
103-65-1	n-Propylbenzene	ND	50	6.3	ug/l	
100-42-5	Styrene	ND	50	4.5	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.3	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.3	ug/l	
127-18-4	Tetrachloroethene	ND	10	4.5	ug/l	
108-88-3	Toluene	ND	10	4.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	6.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	3.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	6.8	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.1	ug/l	
79-01-6	Trichloroethene	ND	10	4.8	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	7.2	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	5.8	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	50	2.4	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	50	4.1	ug/l	
108-05-4	Vinyl Acetate	ND	50	15	ug/l	
75-01-4	Vinyl chloride	ND	10	6.9	ug/l	
	m,p-Xylene	ND	10	4.0	ug/l	
95-47-6	o-Xylene	ND	10	2.2	ug/l	
1330-20-7	Xylene (total)	ND	10	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-16S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-4		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	107%		77-124%

(a) Elevated RL due to dilution required for matrix interference (foaming).

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-15S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-5		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100870.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	PZ-15S	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-5	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-15S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-5		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-1D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-6		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100871.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
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## Report of Analysis

<b>Client Sample ID:</b>	PZ-1D	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-6	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-1D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-6		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-18S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-7		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100872.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> PZ-22S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-8		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100873.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> PZ-21		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-9		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N100884.D	5	04/09/16	MC	n/a	n/a	MSN3689
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	45.7	2.5	2.2	ug/l	
108-88-3	Toluene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	ND	5.0	2.6	ug/l	
1330-20-7	Xylene (total)	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	22.1	5.0	2.8	ug/l	
91-20-3	Naphthalene	ND	25	2.3	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	25	1.2	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	25	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-127%
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

(a) Elevated RL due to dilution required for matrix interference (foaming).

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.9  
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# Report of Analysis

<b>Client Sample ID:</b> PZ-14D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-10		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N100885.D	5	04/09/16	MC	n/a	n/a	MSN3689
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	14	ug/l	
71-43-2	Benzene	ND	2.5	2.2	ug/l	
108-86-1	Bromobenzene	ND	25	1.8	ug/l	
74-97-5	Bromochloromethane	ND	25	1.7	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.5	ug/l	
75-25-2	Bromoform	ND	5.0	1.6	ug/l	
74-83-9	Bromomethane	ND	10	2.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	9.8	ug/l	
104-51-8	n-Butylbenzene	ND	25	2.9	ug/l	
135-98-8	sec-Butylbenzene	ND	25	2.7	ug/l	
98-06-6	tert-Butylbenzene	ND	25	2.9	ug/l	
75-15-0	Carbon disulfide	ND	25	6.0	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	3.3	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.5	ug/l	
75-00-3	Chloroethane	ND	10	3.1	ug/l	
67-66-3	Chloroform	ND	5.0	2.0	ug/l	
74-87-3	Chloromethane	ND	10	4.1	ug/l	
95-49-8	o-Chlorotoluene	ND	25	2.5	ug/l	
106-43-4	p-Chlorotoluene	ND	25	2.4	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	4.8	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	0.64	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	3.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	3.4	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	2.4	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	3.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	1.5	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	2.5	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	3.4	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.10  
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## Report of Analysis

<b>Client Sample ID:</b>	PZ-14D	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-10	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	25	3.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	4.2	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	2.7	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	1.3	ug/l	
100-41-4	Ethylbenzene	ND	5.0	2.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	25	5.1	ug/l	
591-78-6	2-Hexanone	ND	50	1.8	ug/l	
74-88-4	Iodomethane	ND	25	3.9	ug/l	
98-82-8	Isopropylbenzene	ND	25	2.5	ug/l	
99-87-6	p-Isopropyltoluene	ND	25	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.8	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	2.5	ug/l	
74-95-3	Methylene bromide	ND	25	1.2	ug/l	
75-09-2	Methylene chloride	ND	10	8.9	ug/l	
91-20-3	Naphthalene	ND	25	2.3	ug/l	
103-65-1	n-Propylbenzene	ND	25	3.2	ug/l	
100-42-5	Styrene	ND	25	2.3	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.64	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.2	ug/l	
108-88-3	Toluene	ND	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25	3.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	25	1.7	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	3.4	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
79-01-6	Trichloroethene	ND	5.0	2.4	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	3.6	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25	2.9	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	25	1.2	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	25	2.1	ug/l	
108-05-4	Vinyl Acetate	ND	25	7.5	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.4	ug/l	
	m,p-Xylene	ND	5.0	2.0	ug/l	
95-47-6	o-Xylene	ND	5.0	1.1	ug/l	
1330-20-7	Xylene (total)	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-14D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-10		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	105%		77-124%

(a) Elevated RL due to dilution required for matrix interference (foaming).

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-19		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-11		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100875.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	PZ-19	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-11	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-19		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-11		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	105%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-3		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-12		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100931.D	2	04/11/16	CB	n/a	n/a	MSN3691
Run #2	N100900.D	10	04/09/16	MC	n/a	n/a	MSN3690

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	52.8	1.0	0.89	ug/l	
108-88-3	Toluene	ND	2.0	0.98	ug/l	
100-41-4	Ethylbenzene	1.9	2.0	1.1	ug/l	J
1330-20-7	Xylene (total)	4.6	2.0	0.43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	371 <sup>a</sup>	10	5.7	ug/l	
91-20-3	Naphthalene	ND	10	0.90	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.98	10	0.47	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	10	0.83	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	99%	79-127%
2037-26-5	Toluene-D8	98%	99%	80-116%
460-00-4	4-Bromofluorobenzene	101%	105%	77-124%

(a) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-7		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-13		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100901.D	10	04/09/16	MC	n/a	n/a	MSN3690
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	48.3	5.0	4.5	ug/l	
108-88-3	Toluene	ND	10	4.9	ug/l	
100-41-4	Ethylbenzene	8.1	10	5.3	ug/l	J
1330-20-7	Xylene (total)	2.9	10	2.2	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	580	10	5.7	ug/l	
91-20-3	Naphthalene	ND	50	4.5	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	50	2.4	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	50	4.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-127%
2037-26-5	Toluene-D8	98%		80-116%
460-00-4	4-Bromofluorobenzene	103%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-17S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-14		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100874.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone <sup>a</sup>	22.2	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-17S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-14		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.1	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-17S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-14		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		80-116%
460-00-4	4-Bromofluorobenzene	107%		77-124%

(a) Initial Calibration verification outside of acceptance criteria. Result may be biased high.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-15D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-15		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100876.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.55	1.0	0.29	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-15D	<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-15	<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	1.5	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-15D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-15		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-1S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-16		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100877.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PZ-1S	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-16	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C	<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-1S	<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-16	<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI	

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### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-18D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-17		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100932.D	2	04/11/16	CB	n/a	n/a	MSN3691
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	40.4	1.0	0.89	ug/l	
108-88-3	Toluene	ND	2.0	0.98	ug/l	
100-41-4	Ethylbenzene	1.1	2.0	1.1	ug/l	J
1330-20-7	Xylene (total)	1.1	2.0	0.43	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	263	2.0	1.1	ug/l	
91-20-3	Naphthalene	ND	10	0.90	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	10	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	0.83	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-127%
2037-26-5	Toluene-D8	98%		80-116%
460-00-4	4-Bromofluorobenzene	102%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.17  
4

## Report of Analysis

<b>Client Sample ID:</b> PZ-22D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-18		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100926.D	1	04/11/16	CB	n/a	n/a	MSN3691
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Aromatic Volatiles**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.0	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-127%
2037-26-5	Toluene-D8	98%		80-116%
460-00-4	4-Bromofluorobenzene	102%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.18  
4

# Report of Analysis

<b>Client Sample ID:</b> PZ-20		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-19		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100927.D	1	04/11/16	CB	n/a	n/a	MSN3691
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	30.7	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-127%
2037-26-5	Toluene-D8	98%		80-116%
460-00-4	4-Bromofluorobenzene	102%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
4

## Report of Analysis

<b>Client Sample ID:</b> PZ-14S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-20		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100878.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	0.58	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PZ-14S	<b>Date Sampled:</b>	03/30/16
<b>Lab Sample ID:</b>	MC45170-20	<b>Date Received:</b>	04/02/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	2.4	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	7.0	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	3.9	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	8.6	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	2.8	5.0	0.41	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	13.9	1.0	0.40	ug/l	
95-47-6	o-Xylene	6.1	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	20.0	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-14S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-20		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

4.20  
4

**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> FTC-2S		<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-21		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100937.D	1000	04/11/16	CB	n/a	n/a	MSN3691
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	7310	500	450	ug/l	
108-88-3	Toluene	23000	1000	490	ug/l	
100-41-4	Ethylbenzene	2620	1000	530	ug/l	
1330-20-7	Xylene (total)	13300	1000	220	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1000	570	ug/l	
91-20-3	Naphthalene	493	5000	450	ug/l	J
95-63-6	1,2,4-Trimethylbenzene	1660	5000	240	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	458	5000	410	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-127%
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	101%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.21  
4

## Report of Analysis

<b>Client Sample ID:</b> PZ-9		<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-22		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100879.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-9	<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-22	<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-9	<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-22	<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI	

4.22  
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### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	106%		77-124%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> FTC-13R		<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-23		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100906.D	200	04/09/16	MC	n/a	n/a	MSN3690
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2970	100	89	ug/l	
108-88-3	Toluene	32400	200	98	ug/l	
100-41-4	Ethylbenzene	464	200	110	ug/l	
1330-20-7	Xylene (total)	3510	200	43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	250	200	110	ug/l	
91-20-3	Naphthalene	101	1000	90	ug/l	J
95-63-6	1,2,4-Trimethylbenzene	398	1000	47	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	131	1000	83	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-127%
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	103%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.23  
4

## Report of Analysis

<b>Client Sample ID:</b> FTC-15R		<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-24		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100905.D	100	04/09/16	MC	n/a	n/a	MSN3690
Run #2	N100936.D	250	04/11/16	CB	n/a	n/a	MSN3691

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2660	50	45	ug/l	
108-88-3	Toluene	35500 <sup>a</sup>	250	120	ug/l	
100-41-4	Ethylbenzene	757	100	53	ug/l	
1330-20-7	Xylene (total)	7440	100	22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	128	100	57	ug/l	
91-20-3	Naphthalene	270	500	45	ug/l	J
95-63-6	1,2,4-Trimethylbenzene	1100	500	24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	297	500	41	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	97%	79-127%
2037-26-5	Toluene-D8	99%	98%	80-116%
460-00-4	4-Bromofluorobenzene	104%	101%	77-124%

(a) Result is from Run# 2

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.24  
4

## Report of Analysis

<b>Client Sample ID:</b> CS-9R		<b>Date Sampled:</b> 03/31/16
<b>Lab Sample ID:</b> MC45170-25		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100935.D	200	04/11/16	CB	n/a	n/a	MSN3691
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Aromatic Volatiles

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	499	100	89	ug/l	
108-88-3	Toluene	13900	200	98	ug/l	
100-41-4	Ethylbenzene	482	200	110	ug/l	
1330-20-7	Xylene (total)	3570	200	43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	200	110	ug/l	
91-20-3	Naphthalene	285	1000	90	ug/l	J
95-63-6	1,2,4-Trimethylbenzene	483	1000	47	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	150	1000	83	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-127%
2037-26-5	Toluene-D8	98%		80-116%
460-00-4	4-Bromofluorobenzene	101%		77-124%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> PZ-6S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-26		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N100880.D	1	04/08/16	MC	n/a	n/a	MSN3689
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-6S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-26		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.33	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-127%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PZ-6S		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-26		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

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4

**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> PZ-17D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-27		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N100886.D	5	04/09/16	MC	n/a	n/a	MSN3689
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone <sup>b</sup>	73.0	50	14	ug/l	
71-43-2	Benzene	ND	2.5	2.2	ug/l	
108-86-1	Bromobenzene	ND	25	1.8	ug/l	
74-97-5	Bromochloromethane	ND	25	1.7	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.5	ug/l	
75-25-2	Bromoform	ND	5.0	1.6	ug/l	
74-83-9	Bromomethane	ND	10	2.5	ug/l	
78-93-3	2-Butanone (MEK)	40.8	50	9.8	ug/l	J
104-51-8	n-Butylbenzene	ND	25	2.9	ug/l	
135-98-8	sec-Butylbenzene	ND	25	2.7	ug/l	
98-06-6	tert-Butylbenzene	ND	25	2.9	ug/l	
75-15-0	Carbon disulfide	ND	25	6.0	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	3.3	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.5	ug/l	
75-00-3	Chloroethane	ND	10	3.1	ug/l	
67-66-3	Chloroform	ND	5.0	2.0	ug/l	
74-87-3	Chloromethane	ND	10	4.1	ug/l	
95-49-8	o-Chlorotoluene	ND	25	2.5	ug/l	
106-43-4	p-Chlorotoluene	ND	25	2.4	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	4.8	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	0.64	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	3.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	3.4	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	2.4	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	3.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	9.2	5.0	1.5	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	2.5	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	3.4	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PZ-17D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-27		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	25	3.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	4.2	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	2.7	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	1.3	ug/l	
100-41-4	Ethylbenzene	ND	5.0	2.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	25	5.1	ug/l	
591-78-6	2-Hexanone	ND	50	1.8	ug/l	
74-88-4	Iodomethane	19.1	25	3.9	ug/l	J
98-82-8	Isopropylbenzene	ND	25	2.5	ug/l	
99-87-6	p-Isopropyltoluene	ND	25	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.8	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	2.5	ug/l	
74-95-3	Methylene bromide	ND	25	1.2	ug/l	
75-09-2	Methylene chloride	ND	10	8.9	ug/l	
91-20-3	Naphthalene	ND	25	2.3	ug/l	
103-65-1	n-Propylbenzene	ND	25	3.2	ug/l	
100-42-5	Styrene	ND	25	2.3	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.64	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.2	ug/l	
108-88-3	Toluene	ND	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25	3.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	25	1.7	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	3.4	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
79-01-6	Trichloroethene	11.7	5.0	2.4	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	3.6	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25	2.9	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	25	1.2	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	25	2.1	ug/l	
108-05-4	Vinyl Acetate	ND	25	7.5	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.4	ug/l	
	m,p-Xylene	ND	5.0	2.0	ug/l	
95-47-6	o-Xylene	ND	5.0	1.1	ug/l	
1330-20-7	Xylene (total)	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-127%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PZ-17D		<b>Date Sampled:</b> 03/30/16
<b>Lab Sample ID:</b> MC45170-27		<b>Date Received:</b> 04/02/16
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C		
<b>Project:</b> OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-116%
460-00-4	4-Bromofluorobenzene	104%		77-124%

- (a) Elevated RL due to dilution required for matrix interference.
- (b) Initial Calibration verification outside of acceptance criteria. Result may be biased high.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # **MC45170**

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes												
Company Name <b>O+M, Inc.</b>		Project Name <b>Tyco FTC</b>		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> <b>VOCs</b> <b>PVOCs</b> <b>XXXXXXXXXX</b> <b>XXXXXX</b> <b>XX</b> </div> <div style="text-align: center;"> <p><b>Do not run</b></p> </div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank												
Street Address <b>4830 N. Berkeley</b>		Street <b>2700 Industrial Pkwy</b>																								
City <b>Milwaukee WI 53217</b>		City <b>Harinette</b>																								
Project Contact <b>Eric Frauen</b>		Project # <b>493</b>																								
Phone # <b>414-305-8543</b>		Client POC <b>493</b>																								
Sampler(s) Name(s) <b>Eric Frauen</b>		Project Manager <b>Eric Frauen</b>																								
Field ID / Point of Collection		MECH/DI Val #													Date		Time		Sampled by		Matrix		# of bottles		Number of preserved Bottles	
-1 PZ-2															3/30/16		9:00		EF		W		3		X	
-2 PZ-13															3/30/16		9:35						3			
-3 PZ-16 D																	10:15									
-4 PZ-16 S						10:32																				
<del>PZ-6 D</del>						<del>12:00</del>																				
-5 PZ-15 S						13:55																				
-6 PZ-1 D						14:10																				
-7 PZ-18 S						14:55																				
-8 PZ-22 S						15:40																				
-9 PZ-21						16:12																				
-10 PZ-14 D						17:05																				
-11 PZ-19						10:24																				

Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other			
Emergency & Rush T/A data available VIA Lablink				Commercial "A" = Results Only Commercial "B" = Results + QC Summary			

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date/Time:	Received By:	Date/Time:	Relinquished by:	Date/Time:	Received By:	Date/Time:
1 <i>[Signature]</i>	4/1/16 11:00	2 <i>[Signature]</i>	4/1/16 11:00	3 <i>[Signature]</i>	4/1/16	4 <i>[Signature]</i>	4/1/16
3		5					

Custody Seal # \_\_\_\_\_  Intact  Preserved where applicable  Not intact

On Ice  Cooler Temp. **0-7, 1-2, 100c**

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CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL: 508-481-6200 FAX: 508-481-7753
www.accutest.com

Form containing Client/Reporting Information, Project Information, Requested Analysis, Matrix Codes, and a detailed table of sample collection events with dates, times, and analysis results.

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MC45170: Chain of Custody

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## SGS Accutest Sample Receipt Summary

Job Number: MC45170

Client: O&M

Project: Tyco FTC

Date / Time Received: 4/2/2016 10:00:00 AM

Delivery Method: FedEx

Airbill #'s: \_\_\_\_\_

Cooler Temps (Initial/Adjusted): #: (1/1); #: (1.2/1.2); #1: (7/7);

**Cooler Security**

	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

**Cooler Temperature**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Thermometer ID:	<u>IRGUN1;</u>		
3. Cooler media:	<u>Ice (Bag)</u>		
4. No. Coolers:	<u>1</u>		

**Quality Control Preservation**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

**Sample Integrity - Documentation**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

**Sample Integrity - Condition**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>		

**Sample Integrity - Instructions**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

MC45170: Chain of Custody

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## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-MB	N100866.D	1	04/08/16	MC	n/a	n/a	MSN3689

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.31	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
74-83-9	Bromomethane	ND	2.0	0.50	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.59	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.58	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.66	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	2.0	0.62	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	0.83	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.49	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.47	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.96	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.38	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.46	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.65	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.48	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.60	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.69	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.69	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	0.84	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.54	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.20	ug/l	

## Method Blank Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-MB	N100866.D	1	04/08/16	MC	n/a	n/a	MSN3689

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/l	
591-78-6	2-Hexanone	ND	10	0.36	ug/l	
74-88-4	Iodomethane	ND	5.0	0.78	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.51	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.23	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.8	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.63	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.62	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.48	5.0	0.33	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.68	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.48	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.72	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.58	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.69	ug/l	
	m,p-Xylene	ND	1.0	0.40	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-MB	N100866.D	1	04/08/16	MC	n/a	n/a	MSN3689

**The QC reported here applies to the following samples:**

**Method:** SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	97% 79-127%
2037-26-5	Toluene-D8	99% 80-116%
460-00-4	4-Bromofluorobenzene	103% 77-124%

## Method Blank Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3690-MB	N100893.D	1	04/09/16	MC	n/a	n/a	MSN3690

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-12, MC45170-13, MC45170-23, MC45170-24

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 79-127%
2037-26-5	Toluene-D8	99% 80-116%
460-00-4	4-Bromofluorobenzene	105% 77-124%

## Method Blank Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3691-MB	N100922.D	1	04/11/16	CB	n/a	n/a	MSN3691

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-12, MC45170-17, MC45170-18, MC45170-19, MC45170-21, MC45170-24, MC45170-25

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.53	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.57	ug/l	
91-20-3	Naphthalene	ND	5.0	0.45	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	96% 79-127%
2037-26-5	Toluene-D8	98% 80-116%
460-00-4	4-Bromofluorobenzene	101% 77-124%

# Blank Spike Summary

**Job Number:** MC45170  
**Account:** TINJP Tyco International  
**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3691-BS	N100920.D	1	04/11/16	CB	n/a	n/a	MSN3691

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

MC45170-12, MC45170-17, MC45170-18, MC45170-19, MC45170-21, MC45170-24, MC45170-25

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	41.5	83	74-124
100-41-4	Ethylbenzene	50	50.1	100	76-125
1634-04-4	Methyl Tert Butyl Ether	50	40.1	80	67-145
91-20-3	Naphthalene	50	43.9	88	24-164
108-88-3	Toluene	50	45.5	91	80-122
95-63-6	1,2,4-Trimethylbenzene	50	45.6	91	79-124
108-67-8	1,3,5-Trimethylbenzene	50	49.2	98	80-130
1330-20-7	Xylene (total)	150	152	101	74-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	79-127%
2037-26-5	Toluene-D8	96%	80-116%
460-00-4	4-Bromofluorobenzene	91%	77-124%

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-BS	N100863.D	1	04/08/16	MC	n/a	n/a	MSN3689
MSN3689-BSD	N100864.D	1	04/08/16	MC	n/a	n/a	MSN3689

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.3	133	60.9	122	8	10-200/25
71-43-2	Benzene	50	47.8	96	46.1	92	4	74-124/25
108-86-1	Bromobenzene	50	48.9	98	47.5	95	3	80-117/25
74-97-5	Bromochloromethane	50	47.5	95	47.3	95	0	73-130/25
75-27-4	Bromodichloromethane	50	48.3	97	46.9	94	3	76-136/25
75-25-2	Bromoform	50	50.5	101	49.0	98	3	63-139/25
74-83-9	Bromomethane	50	56.2	112	55.0	110	2	49-161/25
78-93-3	2-Butanone (MEK)	50	58.5	117	56.8	114	3	44-191/25
104-51-8	n-Butylbenzene	50	50.8	102	46.3	93	9	84-134/25
135-98-8	sec-Butylbenzene	50	50.7	101	47.0	94	8	76-125/25
98-06-6	tert-Butylbenzene	50	49.5	99	46.8	94	6	74-123/25
75-15-0	Carbon disulfide	50	39.8	80	37.9	76	5	45-138/25
56-23-5	Carbon tetrachloride	50	46.3	93	44.3	89	4	64-149/25
108-90-7	Chlorobenzene	50	52.4	105	50.4	101	4	73-114/25
75-00-3	Chloroethane	50	50.4	101	48.3	97	4	43-165/25
67-66-3	Chloroform	50	46.7	93	44.9	90	4	72-132/25
74-87-3	Chloromethane	50	45.7	91	42.6	85	7	30-173/25
95-49-8	o-Chlorotoluene	50	47.7	95	45.5	91	5	75-116/25
106-43-4	p-Chlorotoluene	50	47.9	96	45.7	91	5	78-116/25
96-12-8	1,2-Dibromo-3-chloropropane	50	50.6	101	48.8	98	4	50-157/25
124-48-1	Dibromochloromethane	50	56.9	114	55.6	111	2	75-133/25
106-93-4	1,2-Dibromoethane	50	52.7	105	51.6	103	2	72-133/25
95-50-1	1,2-Dichlorobenzene	50	53.5	107	50.9	102	5	73-122/25
541-73-1	1,3-Dichlorobenzene	50	53.0	106	50.3	101	5	76-117/25
106-46-7	1,4-Dichlorobenzene	50	56.1	112	53.2	106	5	74-120/25
75-71-8	Dichlorodifluoromethane	50	41.8	84	39.8	80	5	30-180/25
75-34-3	1,1-Dichloroethane	50	44.5	89	42.8	86	4	62-130/25
107-06-2	1,2-Dichloroethane	50	46.4	93	45.2	90	3	65-140/25
75-35-4	1,1-Dichloroethene	50	44.8	90	42.7	85	5	57-132/25
156-59-2	cis-1,2-Dichloroethene	50	47.5	95	46.2	92	3	72-131/25
156-60-5	trans-1,2-Dichloroethene	50	42.8	86	41.6	83	3	69-127/25
78-87-5	1,2-Dichloropropane	50	47.5	95	46.1	92	3	74-130/25
142-28-9	1,3-Dichloropropane	50	50.1	100	49.2	98	2	80-129/25
594-20-7	2,2-Dichloropropane	50	43.2	86	40.9	82	5	54-162/25
563-58-6	1,1-Dichloropropene	50	44.4	89	42.3	85	5	75-116/25
10061-01-5	cis-1,3-Dichloropropene	50	48.8	98	47.4	95	3	86-141/25

\* = Outside of Control Limits.



# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-BS	N100863.D	1	04/08/16	MC	n/a	n/a	MSN3689
MSN3689-BSD	N100864.D	1	04/08/16	MC	n/a	n/a	MSN3689

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	48.1	96	46.9	94	3	80-134/25
100-41-4	Ethylbenzene	50	53.5	107	51.4	103	4	76-125/25
87-68-3	Hexachlorobutadiene	50	51.4	103	46.6	93	10	64-154/25
591-78-6	2-Hexanone	50	62.5	125	59.0	118	6	35-200/25
74-88-4	Iodomethane	50	48.7	97	50.3	101	3	50-154/25
98-82-8	Isopropylbenzene	50	49.6	99	46.8	94	6	74-121/25
99-87-6	p-Isopropyltoluene	50	54.8	110	51.0	102	7	84-128/25
1634-04-4	Methyl Tert Butyl Ether	50	53.9	108	52.1	104	3	67-145/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	48.7	97	47.3	95	3	61-155/25
74-95-3	Methylene bromide	50	47.4	95	46.7	93	1	75-124/25
75-09-2	Methylene chloride	50	44.3	89	43.0	86	3	62-137/25
91-20-3	Naphthalene	50	48.0	96	45.6	91	5	24-164/25
103-65-1	n-Propylbenzene	50	47.8	96	45.0	90	6	76-120/25
100-42-5	Styrene	50	47.3	95	45.7	91	3	74-132/25
630-20-6	1,1,1,2-Tetrachloroethane	50	53.9	108	52.4	105	3	71-136/25
79-34-5	1,1,2,2-Tetrachloroethane	50	53.7	107	52.5	105	2	65-145/25
127-18-4	Tetrachloroethene	50	53.6	107	50.9	102	5	73-122/25
108-88-3	Toluene	50	51.0	102	49.1	98	4	80-122/25
87-61-6	1,2,3-Trichlorobenzene	50	50.2	100	47.4	95	6	33-170/25
120-82-1	1,2,4-Trichlorobenzene	50	49.3	99	46.6	93	6	43-159/25
71-55-6	1,1,1-Trichloroethane	50	49.3	99	47.4	95	4	68-137/25
79-00-5	1,1,2-Trichloroethane	50	49.6	99	48.5	97	2	76-134/25
79-01-6	Trichloroethene	50	46.9	94	46.4	93	1	80-125/25
75-69-4	Trichlorofluoromethane	50	49.3	99	47.1	94	5	56-166/25
96-18-4	1,2,3-Trichloropropane	50	49.4	99	47.9	96	3	65-147/25
95-63-6	1,2,4-Trimethylbenzene	50	50.2	100	47.7	95	5	79-124/25
108-67-8	1,3,5-Trimethylbenzene	50	54.5	109	51.5	103	6	80-130/25
108-05-4	Vinyl Acetate	50	42.0	84	40.6	81	3	72-200/25
75-01-4	Vinyl chloride	50	42.9	86	40.2	80	6	39-176/25
	m,p-Xylene	100	108	108	103	103	5	75-121/25
95-47-6	o-Xylene	50	52.8	106	50.8	102	4	71-123/25
1330-20-7	Xylene (total)	150	160	107	154	103	4	74-122/25

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3689-BS	N100863.D	1	04/08/16	MC	n/a	n/a	MSN3689
MSN3689-BSD	N100864.D	1	04/08/16	MC	n/a	n/a	MSN3689

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-1, MC45170-2, MC45170-3, MC45170-4, MC45170-5, MC45170-6, MC45170-7, MC45170-8, MC45170-9, MC45170-10, MC45170-11, MC45170-14, MC45170-15, MC45170-16, MC45170-20, MC45170-22, MC45170-26, MC45170-27

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	98%	79-127%
2037-26-5	Toluene-D8	98%	98%	80-116%
460-00-4	4-Bromofluorobenzene	93%	95%	77-124%

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3690-BS	N100890.D	1	04/09/16	MC	n/a	n/a	MSN3690
MSN3690-BSD	N100891.D	1	04/09/16	MC	n/a	n/a	MSN3690

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-12, MC45170-13, MC45170-23, MC45170-24

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	47.3	95	48.3	97	2	74-124/25
100-41-4	Ethylbenzene	50	53.1	106	54.0	108	2	76-125/25
1634-04-4	Methyl Tert Butyl Ether	50	51.5	103	52.3	105	2	67-145/25
91-20-3	Naphthalene	50	44.5	89	45.4	91	2	24-164/25
108-88-3	Toluene	50	50.3	101	51.7	103	3	80-122/25
95-63-6	1,2,4-Trimethylbenzene	50	49.4	99	50.2	100	2	79-124/25
108-67-8	1,3,5-Trimethylbenzene	50	53.9	108	54.8	110	2	80-130/25
1330-20-7	Xylene (total)	150	160	107	164	109	2	74-122/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	99%	79-127%
2037-26-5	Toluene-D8	98%	97%	80-116%
460-00-4	4-Bromofluorobenzene	93%	94%	77-124%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC45166-5MS	N100941.D	5	04/11/16	CB	n/a	n/a	MSN3691
MC45166-5MSD	N100942.D	5	04/11/16	CB	n/a	n/a	MSN3691
MC45166-5	N100923.D	1	04/11/16	CB	n/a	n/a	MSN3691

The QC reported here applies to the following samples:

Method: SW846 8260C

MC45170-12, MC45170-17, MC45170-18, MC45170-19, MC45170-21, MC45170-24, MC45170-25

CAS No.	Compound	MC45166-5 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.78	250	194	77	250	213	85	9	63-135/30
100-41-4	Ethylbenzene	0.60	250	229	91	250	255	102	11	60-136/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	203	81	250	230	92	12	60-156/30
91-20-3	Naphthalene	ND	250	193	77	250	219	88	13	23-167/30
108-88-3	Toluene	ND	250	209	84	250	233	93	11	69-134/30
95-63-6	1,2,4-Trimethylbenzene	0.85	250	208	83	250	231	92	10	67-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	222	89	250	248	99	11	66-137/30
1330-20-7	Xylene (total)	0.24	750	692	92	750	775	103	11	65-127/30

CAS No.	Surrogate Recoveries	MS	MSD	MC45166-5	Limits
1868-53-7	Dibromofluoromethane	98%	97%	98%	79-127%
2037-26-5	Toluene-D8	97%	96%	99%	80-116%
460-00-4	4-Bromofluorobenzene	92%	91%	102%	77-124%

\* = Outside of Control Limits.

# Volatile Surrogate Recovery Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

**Method:** SW846 8260C

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC45170-1	N100867.D	98	100	105
MC45170-2	N100868.D	98	99	104
MC45170-3	N100869.D	98	100	104
MC45170-4	N100883.D	100	100	107
MC45170-5	N100870.D	99	100	106
MC45170-6	N100871.D	100	100	106
MC45170-7	N100872.D	100	100	106
MC45170-8	N100873.D	100	99	106
MC45170-9	N100884.D	103	99	104
MC45170-10	N100885.D	100	100	105
MC45170-11	N100875.D	101	100	105
MC45170-12	N100931.D	99	98	101
MC45170-12	N100900.D	99	99	105
MC45170-13	N100901.D	97	98	103
MC45170-14	N100874.D	100	101	107
MC45170-15	N100876.D	101	100	106
MC45170-16	N100877.D	100	101	106
MC45170-17	N100932.D	100	98	102
MC45170-18	N100926.D	99	98	102
MC45170-19	N100927.D	98	98	102
MC45170-20	N100878.D	99	100	104
MC45170-21	N100937.D	97	99	101
MC45170-22	N100879.D	101	99	106
MC45170-23	N100906.D	98	99	103
MC45170-24	N100936.D	97	98	101
MC45170-24	N100905.D	98	99	104
MC45170-25	N100935.D	97	98	101
MC45170-26	N100880.D	99	100	104
MC45170-27	N100886.D	99	99	104
MC45166-5MS	N100941.D	98	97	92
MC45166-5MSD	N100942.D	97	96	91
MSN3689-BS	N100863.D	98	98	93
MSN3689-BSD	N100864.D	98	98	95
MSN3689-MB	N100866.D	97	99	103
MSN3690-BS	N100890.D	99	98	93
MSN3690-BSD	N100891.D	99	97	94
MSN3690-MB	N100893.D	98	99	105
MSN3691-BS	N100920.D	97	96	91
MSN3691-MB	N100922.D	96	98	101

# Volatile Surrogate Recovery Summary

**Job Number:** MC45170

**Account:** TINJP Tyco International

**Project:** OMITK: Tyco Marinette FTC, 2700 Industrial Parkway South, Marinette, WI

**Method:** SW846 8260C

**Matrix:** AQ

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
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Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	79-127%
S2 = Toluene-D8	80-116%
S3 = 4-Bromofluorobenzene	77-124%

6.5.1

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