



January 7, 2020

Mr. Todd Hall  
Illinois Environmental Protection Agency  
Bureau of Land - Remedial Project Management Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

Re: Groundwater Monitoring Update – Quarter 3, 2019 Sampling Event  
Champaign Former Manufactured Gas Plant, Champaign, Illinois

Dear Mr. Hall:

Ameren Illinois (Ameren) is providing this Champaign Groundwater Monitoring report for the former manufactured gas plant (MGP) site located at 308 N. 5th Street in Champaign, Illinois to the Illinois Environmental Protection Agency (IEPA). This groundwater monitoring summary report was prepared by Environmental Resources Management (ERM) on behalf of Ameren.

Attachment 1 to this letter is the groundwater monitoring summary report for the third quarter of 2019, which was performed in August 2019. This report discusses the analytical results of the quarterly groundwater monitoring event. Additional groundwater monitoring events are scheduled to be performed each quarter in 2019.

Ameren appreciates your assistance and cooperation as we proceed with this project. If you have any questions regarding the responses provided, or need additional information, please feel free to contact me.

Respectfully,

A handwritten signature in blue ink, appearing to read "Dave Palmer".

Dave Palmer, PG, PMP, EVMP  
Manager, Remediation Projects  
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Attachment 1

## **Attachment 1**

Groundwater Monitoring Summary – Quarter 3 2019 – Champaign MGP

December 20, 2019

Mr. Todd Hall  
Illinois Environmental Protection Agency  
Division of Remediation Management  
1021 North Grand Ave East  
P.O. Box 19276  
Springfield, IL 62794-9276



Subject: Groundwater Monitoring Summary  
Third Quarter 2019 Sampling Event  
Champaign Former MGP Site, Champaign, Illinois

Dear Mr. Hall:

On behalf of Ameren Illinois, Environmental Resources Management, Inc. (ERM) has completed the third quarter 2019 groundwater sampling event at the Champaign Former Manufactured Gas Plant (FMGP) Site, located at 308 N. 5<sup>th</sup> Street in Champaign, Illinois. This report summarizes the field data and analytical results for the quarterly groundwater monitoring event conducted in August 2019.

## INTRODUCTION

Groundwater sampling activities for the third quarter 2019 monitoring event were conducted from August 19 through 21. During the sampling event, groundwater samples were collected from 28 monitoring wells, which include seven on-site monitoring wells and 21 off-site monitoring wells.

The depth to groundwater was initially measured at each monitoring well location upon arrival. Groundwater was purged from the monitoring wells using the dedicated bladder pumps until water quality instrumentation indicated that measured parameters had stabilized. Upon stabilization, water samples were collected in containers provided by the laboratory, and placed in ice-filled coolers pending delivery to the analytical laboratory.

Groundwater samples were analyzed for the following MGP-related compounds: the volatile organic compounds benzene, toluene, ethylbenzene, and total xylenes (BTEX); polynuclear aromatic hydrocarbons (PAHs); total cyanide; and total RCRA metals. Laboratory analytical services were provided by Teklab, Inc. (Teklab) of Collinsville, Illinois.

Groundwater level measurement data for the third quarter 2019 sampling event is provided in Table 1. Information on the table includes measurements of depth to water below each well's top of casing (TOC), and calculated groundwater elevation. Groundwater elevation contour maps for the shallow monitoring zone (100 series wells) and the intermediate depth unit (300 series wells) are provided on Figures 1 and 2, respectively.

The analytical results for groundwater samples collected during this event are summarized in Table 2. The concentrations reported in samples that exceed an applicable Illinois Environmental Protection Agency (IEPA) groundwater remedial objective (RO) are highlighted. The monitoring well locations where sample results exceeded an RO are also shown on Figure 3. The laboratory analytical reports prepared by Teklab are provided in Attachment 1.

Quality assurance samples collected during the event included duplicates, matrix spike and matrix spike duplicates, an equipment blank, and a trip blank. Blind duplicates were collected from shallow monitoring well locations UMW-107R and UMW-124, and from intermediate monitoring well location UMW-302. The three duplicate samples were identified on the chain of custody and laboratory analytical report as DUP 001 through DUP 003. Duplicate sample results are shown on Table 2 adjacent to the primary samples. A summary of the results of data validation is also included with the analytical report in Attachment 1.

Purge water that was collected from the monitoring wells during the third quarter 2019 groundwater sampling event was containerized in a 300-gallon plastic tote. The purge water is managed for disposal under the Urbana and Champaign Sanitary District (UCSD) discharge permit. Approximately 100 gallons of purge water were generated during the August groundwater sampling event. This purge water was discharged to the UCSD-designated discharge point on August 21, 2019 under the UCSD permit for the Site.

## GROUNDWATER MONITORING RESULTS

### Groundwater Levels

The measured depth to groundwater and elevations at the Champaign FMGP Site for the August 2019 sampling event are shown on Table 1. The depth to groundwater in the shallow monitoring wells ranged from 3.92 to 9.75 feet below TOC. The shallowest occurrence of groundwater occurred at the on-site monitoring well locations, with depths ranging from 3.92 to 6.02 feet below TOC.

As shown on Figure 1, the shallow groundwater at the FMGP Site flows in a radial pattern from the Site. This groundwater flow pattern is consistent with historical groundwater level surveys conducted at the Site. The groundwater gradients for the shallow groundwater zone during August 2019 were calculated to be 0.018 (UMW-124 to UMW-105), 0.010 (UMW-124 to UMW-116), and 0.010 (UMW-125 to UMW-109) foot per foot (ft/ft). This range of values reflects the general gradients to the south, west and north from the Site.

The depths to groundwater in the nine intermediate monitoring wells, which monitor the intermediate groundwater unit, ranged from 27.54 to 30.13 feet below TOC. As shown on Figure 2, the intermediate groundwater flow direction generally slopes towards the south and southeast, with a groundwater gradient of approximately 0.0012 ft/ft across the Site from UMW-300 to UMW-308.

### Analytical Results

Figure 3 summarizes the monitoring well locations where constituents detected in samples collected during the August 2019 sampling event exceeded at least one Class I, Class II, or inhalation groundwater RO. The shallow groundwater unit is classified as Class II groundwater, and the lower intermediate unit is classified as Class I groundwater. Three of the 28 monitoring wells sampled in the third quarter 2019 had at least one MGP-related constituent exceeding a respective Class I or II, or inhalation RO.

The concentrations detected in samples submitted for analysis of the eight RCRA metals and cyanide were all below their respective groundwater RO.

Monitoring well locations where concentrations of organic constituents (BTEX or PAHs) from the August 2019 sampling event exceeded their respective RO included shallow monitoring wells UMW-124 and UMW-126, and intermediate well UMW-302. Benzene concentrations of 0.104 and 0.109 mg/L were reported in shallow on-site monitoring wells UMW-124 and UMW-126,

respectively, which exceeds the Class II groundwater RO of 0.025 mg/L. Concentrations of other organic constituents detected in the other seventeen shallow monitoring wells located on-site or off-site were below their respective Class II RO.

Benzene and naphthalene were detected in samples collected from intermediate well UMW-302, at concentrations of 0.188 and 1.68 mg/L, respectively, exceeding the Class I groundwater ingestion ROs of 0.005 and 0.14 mg/L. The benzene and naphthalene constituent concentrations also exceed the groundwater (vapor) inhalation ROs for indoor air at residential sites. Ethylbenzene was also detected in samples collected from UMW-302 at a concentration of 0.697 mg/L, which exceeds the groundwater RO for indoor inhalation at residential sites of 0.37 mg/L, but is below the Class I groundwater ingestion RO of 0.7 mg/L. This intermediate well is screened from 35 to 45 feet below land surface, and is separated from the overlying shallow water source in the co-located shallow well UMW-121 by over 20 vertical feet of silty clay. Of the nine intermediate monitoring wells screened in the lower groundwater source, UMW-302 is the only intermediate well location with a constituent concentration exceeding a Class I groundwater ingestion or inhalation RO.

### Data Validation

A summary of the results of data validation is included with the analytical report in Attachment 1. ERM reviewed analytical data from the third quarter 2019 groundwater sampling event for compliance with quality assurance/quality control (QA/QC) and method-prescribed criteria for review of holding time and sample preservation, blank samples, spike samples, surrogate spikes, and duplicate samples. Additional data review of calibration, internal standards, and recalculation was completed for 20 percent of the samples (6 samples: UMW-109-WG-20190820, UMW-124-WG-20190821, UMW-126-WG-20190821, UMW-127-WG-20190821, UMW-302-WG-20190821, and DUP 002-WG-20190821).

During data validation, a disparity was observed in the analytical results for sample pair UMW-124 and duplicate sample DUP 002. For example, the relative percent differences (rpds) for naphthalene and ethylbenzene between the primary and duplicate samples were 189% and 131%, respectively. It was also observed that when the analytical results were plotted on Table 3, the analytical results for UMW-124 and UMW-126 did not appear to correlate with historic results, and appeared to be transposed. To assess this discrepancy, ERM reviewed field records and contacted the analytical laboratory to perform an internal audit for these samples. The analytical laboratory was able to locate the sample containers for UMW-124 and UMW-126. The labels were inspected, the log forms were reviewed, and ERM requested that the remaining sample be rerun for VOC analysis. Although the samples were out of hold time, the concentrations reported in the samples correlated to the original results. No other labeling or data entry errors were observed. In conclusion, the analytical results for samples UMW-124 and UMW-126 were not altered based our review of available files. ERM will assess future results at these two locations to determine if the observance during this sample event represents a one-time occurrence or a change in trend.

### CONCLUSIONS

Based on the data collected during the August 2019 sampling event, the only shallow monitoring wells where concentrations in samples exceeded the Class II groundwater ingestion ROs were on-site monitoring wells UMW-124 and UMW-126. Benzene was the only constituent detected in these samples that exceeded a groundwater RO. No other Class II groundwater ROs for organic

(BTEX and PAHs) or inorganic (cyanide or metals) constituents were exceeded in samples collected from the other monitoring wells screened in the shallow groundwater unit.

The deeper groundwater unit, as represented by the 300-series wells screened in the intermediate groundwater unit, had confirmed detections which exceeded groundwater ROs in monitoring well UMW-302, located south of the Site. Benzene and naphthalene were detected in UMW-302 at concentrations exceeding the Class I groundwater ingestion RO, and concentrations of benzene, ethylbenzene, and naphthalene exceeded the groundwater inhalation ROs for indoor air. As stated previously, the lower groundwater unit is separated from the shallow groundwater unit by the 20-foot thick silty clay unit present at an approximate depth between 20 and 40 feet below land surface. The isolation of the lower groundwater unit from the shallow groundwater unit is evident in the difference in groundwater elevations between the 100 and 300-series monitoring wells (refer to Table 1, and Figures 1 and 2). Furthermore, no detections of constituents that exceeded similar ROs were reported in the co-located shallow monitoring well (UMW-121) that is adjacent to UMW-302.

A summary of the results of data validation is included with the analytical report in Attachment 1. Despite an apparent discrepancy in concentrations measured in UMW-124 and UMW-126, the analytical results for samples UMW-124 and UMW-126 were not found to have been transposed or reported incorrectly based our review of available files. ERM will assess future results at these two locations to determine if the observance during this sample event represents a one-time occurrence or a change in trend.

The analytical results from sampling events completed during the two-year period between July 2017 and August 2019 are shown in Table 3. Graphical representations of benzene and naphthalene concentrations in monitoring wells UMW-107(R), UMW-124, UMW-126 and UMW-302 are shown on Figures 4A through 4D for reference. Table 3 and Figure 4 illustrate that the concentrations reported in samples over time remain generally consistent, exhibiting normal variability induced by seasonal fluctuations of temperature or precipitation at the time of the sampling event. An evaluation of concentrations and variability over time will be discussed in the year-end report for the fourth quarter of 2019.

The next quarterly groundwater sampling event is scheduled to be completed in November 2019. Should you have any questions about the material presented in this summary letter, please contact us at your convenience.

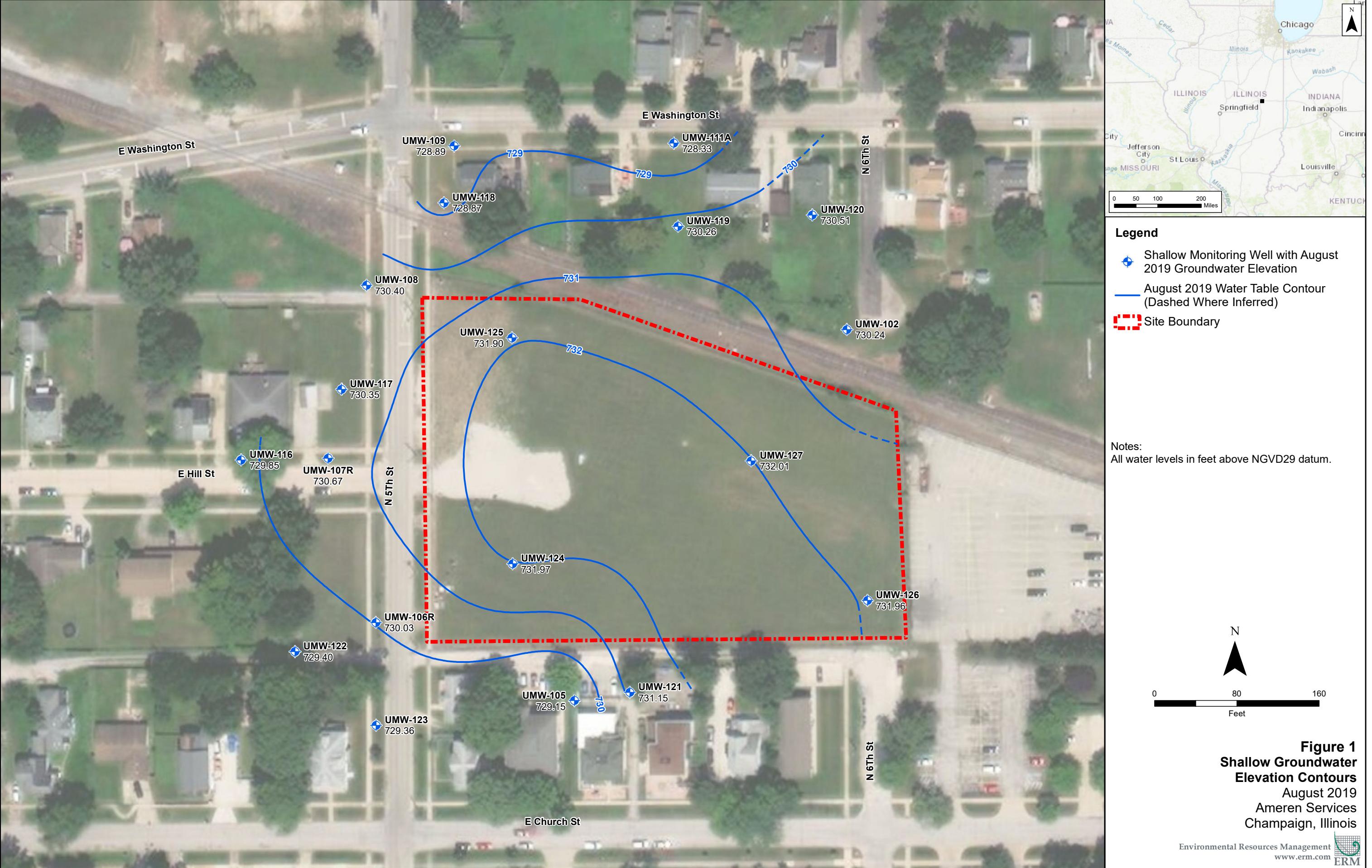
Sincerely,

Gregory Moore, PE  
Project Engineer

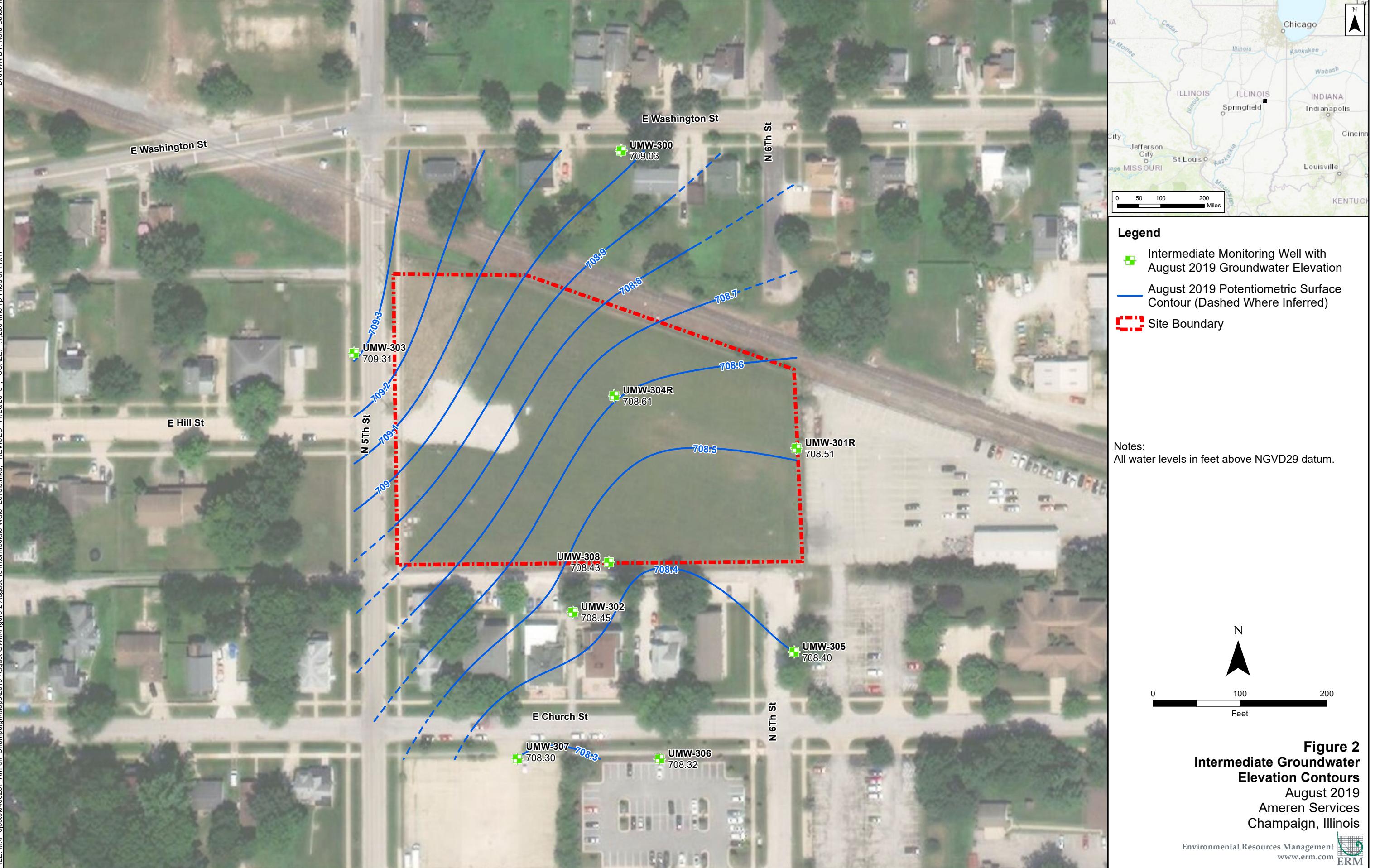
Tom H. Stiegemeier, P.E.  
Principal Consultant

- Attachments      Figure 1 Shallow Groundwater Elevation Contours  
                        Figure 2 Intermediate Groundwater Elevation Contours  
                        Figure 3 Class I and II Groundwater RO Exceedances  
                        Figure 4 Graphs of Concentration versus Time for Selected Monitoring Well Locations  
                        Table 1 Groundwater Elevation Data  
                        Table 2 Summary of Analytical Results  
                        Table 3 Analytical Result by Parameter  
                        Attachment 1 Laboratory Analytical Report and Data Validation Summary

## *Figures*



**Figure 1**  
**Shallow Groundwater Elevation Contours**  
August 2019  
Ameren Services  
Champaign, Illinois



**Figure 2**  
**Intermediate Groundwater Elevation Contours**  
August 2019  
Ameren Services  
Champaign, Illinois



FIGURE 4A  
Benzene and Naphthalene Concentration Trends in Wells Exceeding Groundwater ROs

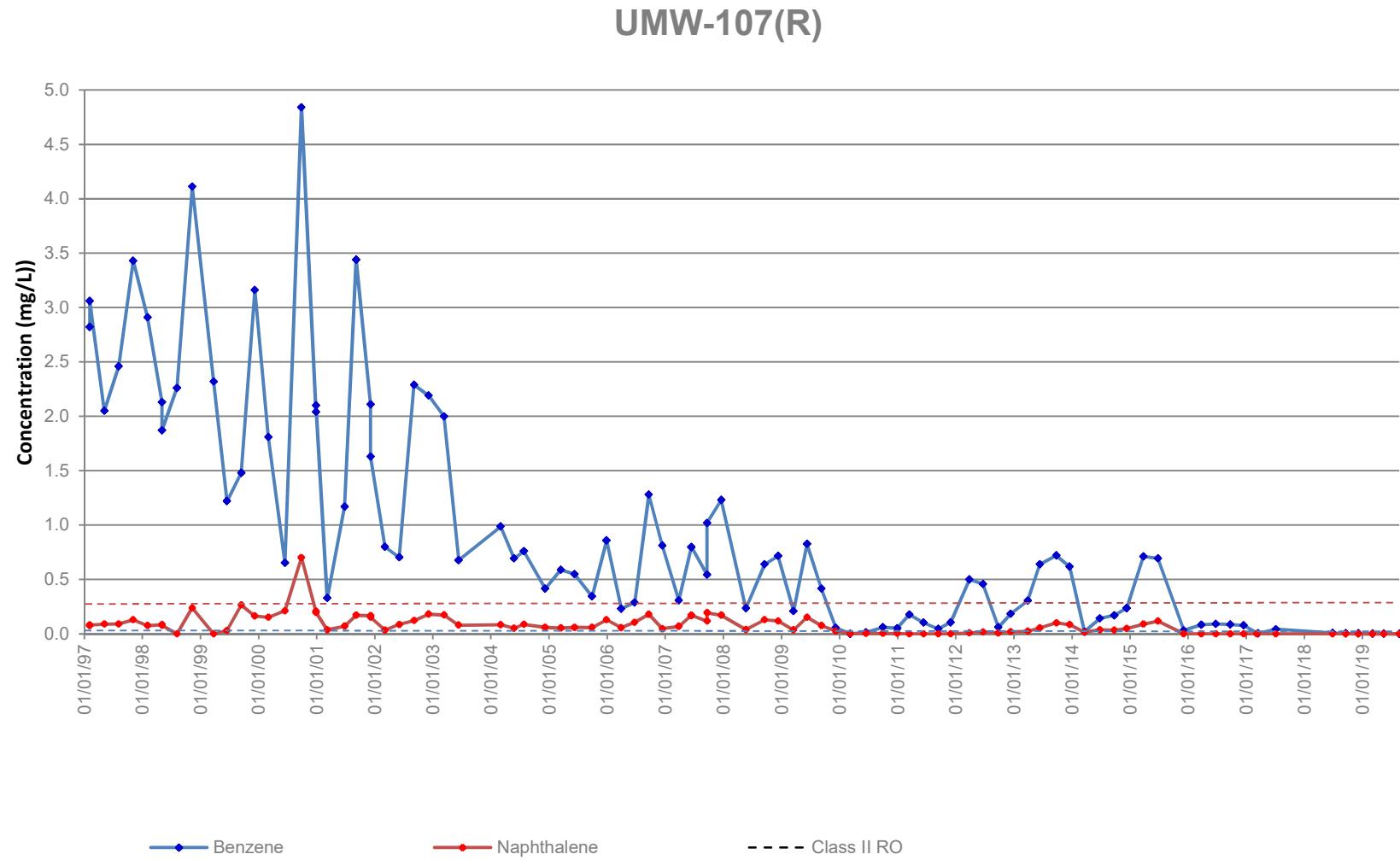


FIGURE 4B  
Benzene and Naphthalene Concentration Trends in Wells Exceeding Groundwater ROs

**UMW-124**

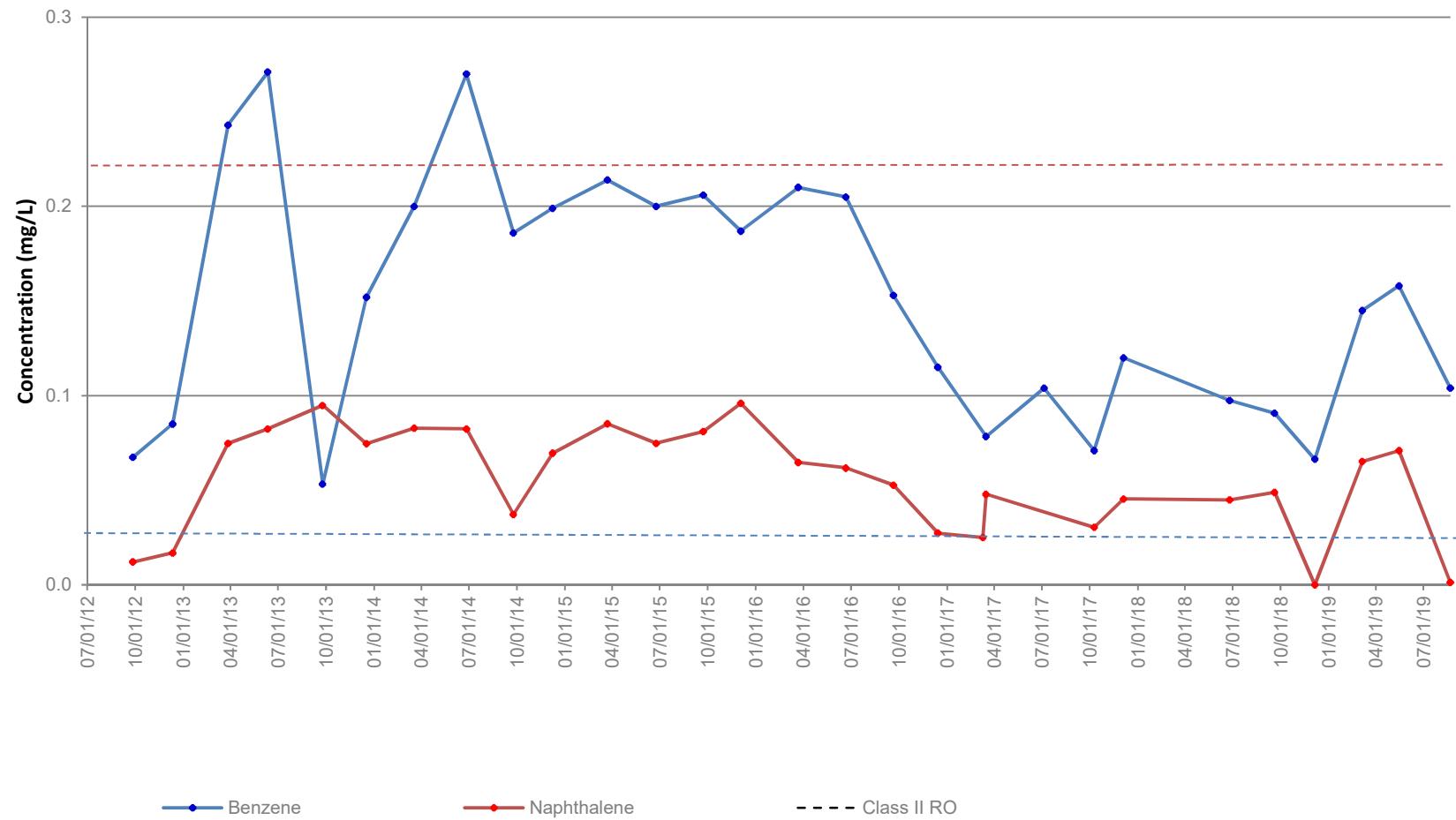


FIGURE 4C  
Benzene and Naphthalene Concentration Trends in Wells Exceeding Groundwater ROs

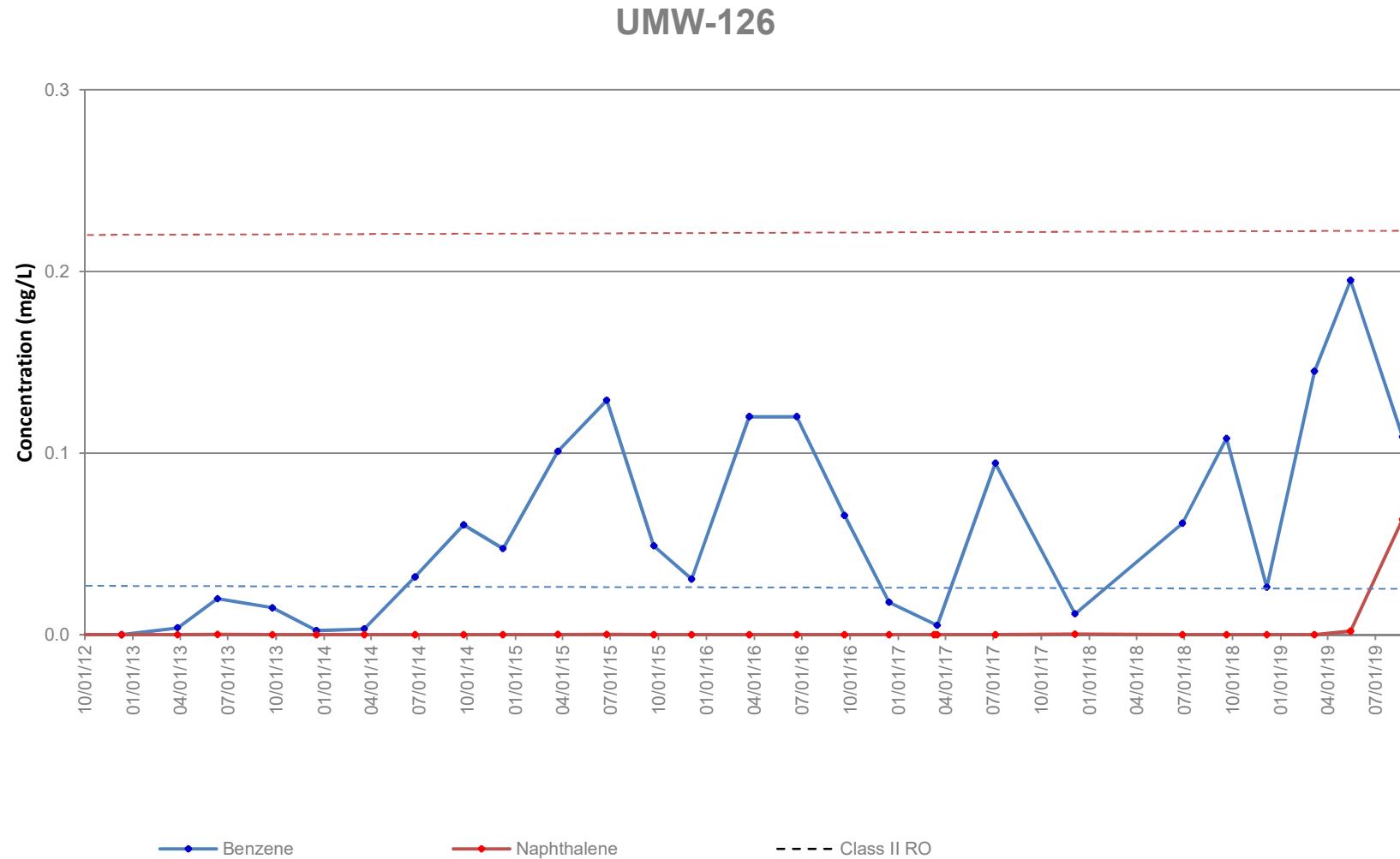
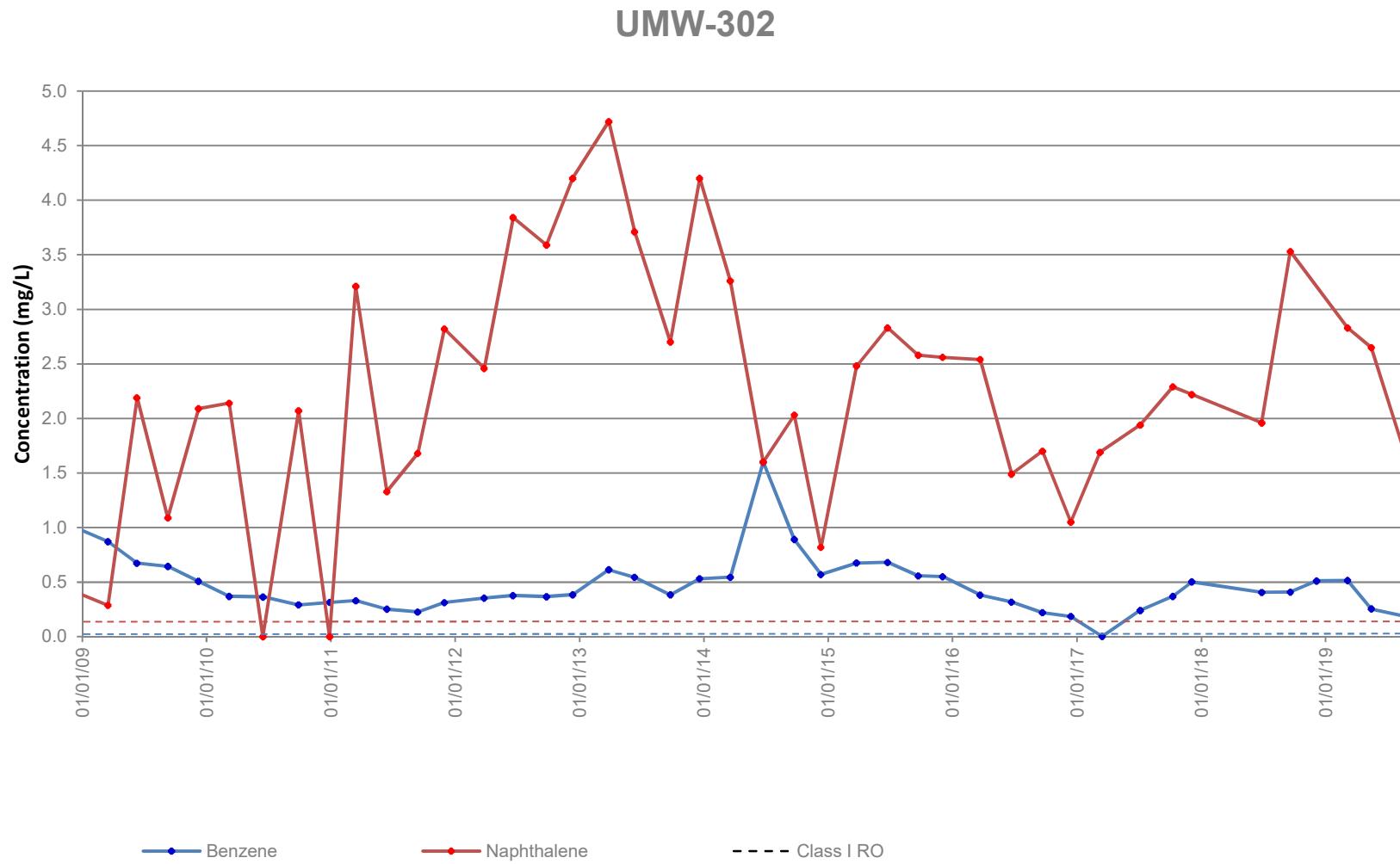


FIGURE 4D  
Benzene and Naphthalene Concentration Trends in Wells Exceeding Groundwater ROs



## ***Tables***

**TABLE 1***Groundwater Elevation Data*

August 2019

Ameren - Champaign FMGP Site

Champaign, Illinois

Monitoring Well Number	Total Depth (feet)	Monitored Interval (feet BLS)	Pump Intake Depth (feet BLS)	Elevation (feet NGVD)		Aug-19		
				Top of Casing (TOC)	Land Surface (LS)	VWL below MD (feet)	Elevation (feet NGVD)	Purge Vol (Gallons)
UMW-102	22.00	6.70 - 22.0	20	737.32	737.70	7.08	730.24	3.05
UMW-105	19.70	9.50 - 19.70	17.7	737.33	737.70	8.18	729.15	2.00
UMW-106R	17.00	7.00 - 17.00	15	737.18	737.43	7.15	730.03	2.00
UMW-107R	19.70	9.50 - 19.70	17.7	736.88	737.30	6.21	730.67	2.30
UMW-108	15.00	4.80 - 15.00	13	736.86	737.10	6.46	730.40	3.10
UMW-109	20.00	10.00 - 20.00	18	735.11	735.50	6.22	728.89	2.30
UMW-111A	22.80	9.00 - 22.80	20.3	736.71	737.00	8.38	728.33	2.50
UMW-116	20.00	10.00 - 20.00	18	736.23	736.50	6.38	729.85	2.50
UMW-117	15.00	5.00 - 15.00	13	737.53	737.81	7.18	730.35	2.00
UMW-118	15.00	5.00 - 15.00	13	736.20	736.43	7.33	728.87	1.50
UMW-119	15.00	5.00 - 15.00	13	736.80	737.09	6.54	730.26	3.50
UMW-120	15.00	5.00 - 15.00	13	737.02	737.53	6.51	730.51	2.50
UMW-121	15.00	5.00 - 15.00	13	738.46	738.80	7.31	731.15	1.35
UMW-122	19.75	5.00 - 15.00	13	739.15	739.44	9.75	729.40	2.25
UMW-123	15.89	5.89 - 15.89	13.9	737.24	737.53	7.88	729.36	2.75
UMW-124 *	15.27	4.97 - 15.02	13.3	737.10	737.28	5.13	731.97	2.00
UMW-125 *	15.33	5.06 - 15.11	13.1	737.92	738.05	6.02	731.90	1.90
UMW-126 *	15.40	5.13 - 15.18	13.4	736.38	736.55	4.42	731.96	3.50
UMW-127 *	15.38	5.11 - 15.16	13.4	735.93	736.14	3.92	732.01	4.25
UMW-300	45.00	35.00 - 45.00	42	736.57	736.79	27.54	709.03	3.50
UMW-301R *	46.65	36.50 - 46.05	44.7	736.11	736.20	27.60	708.51	4.00
UMW-302	45.00	35.00 - 45.00	43	738.58	738.88	30.13	708.45	3.00
UMW-303	45.00	35.00 - 45.00	43	737.05	737.38	27.74	709.31	3.30
UMW-304R *	46.16	36.01 - 45.56	44.2	736.48	736.72	27.87	708.61	4.00
UMW-305	45.00	35.00 - 45.00	43	737.51	737.74	29.11	708.40	3.00
UMW-306	47.00	37.00 - 47.00	45	736.90	737.18	28.58	708.32	3.50
UMW-307	47.00	37.00 - 47.00	45	736.92	737.19	28.62	708.30	3.50
UMW-308 *	45.29	35.14 - 44.69	42.7	737.21	737.39	28.78	708.43	3.25
								340

Notes:

- \* Onsite monitoring well location
- R Replacement monitoring well.
- BLS Below land surface.
- NGVD National Geodetic Vertical Datum

**TABLE 2**  
**Summary of Analytical Results**  
**August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Location Group			Shallow Wells (Class 2 Groundwater Ingestion)											
			Location ID	UMW-102	UMW-105	UMW-106R	UMW-107R	DUP_001	UMW-108	UMW-109	UMW-111A	UMW-116	UMW-117	UMW-118
			Sample Date	8/19/2019	8/21/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N
<b>Parameter/Analyte</b>	<b>CLASS I GROUNDWATER INGESTION</b>	<b>CLASS II GROUNDWATER INGESTION</b>	<b>GW INHALATION DIFFUSION &amp; ADVECTION</b>											
pH				6.94	6.97	7.09	7.36		6.87	6.94	7.28	6.92	6.57	6.78
Specific Conductance ( $\mu\text{S}/\text{cm}$ )				844	1402	1779	1737		830	1706	1405	1045	626	699
Temperature (°C)				18.4	17.5	19.7	18.5		19.9	22.0	19.5	18.1	18.2	19.8
ORP (mV)				36.9	52.6	95.1	-140		219.3	-41.3	213.4	101.9	120.3	72.6
Dissolved Oxygen (mg/L)				0.17	1.15	2.98	0.14		0.50	0.81	2.97	0.81	1.45	0.46
Turbidity (NTU)				0.98	1.09	2.59	68.8		14.2	1.04	0.58	0.43	8.71	24.7
<b>01 - BTEX, mg/L</b>														
Benzene	0.005	0.025	0.11	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0006	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Ethylbenzene	0.7	1	0.37	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Toluene	1	2.5	530	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Xylene, Total	10	10	30	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
<b>02 - PAH, mg/L</b>														
Acenaphthene	0.42	2.1	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Acenaphthylene	0.21	1.05	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Anthracene	2.1	10.5	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)anthracene	0.00013	0.00065	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)pyrene	0.0002	0.002	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(b)fluoranthene	0.00018	0.0009	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(g,h,i)perylene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Benz(k)fluoranthene	0.00017	0.00085	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Chrysene	0.0015	0.075	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Dibenz(a,h)anthracene	0.0003	0.0015	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Fluoranthene	0.28	1.4	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Fluorene	0.28	1.4	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Indeno(1,2,3-cd)pyrene	0.00043	0.00215	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Naphthalene	0.14	0.22	0.075	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Phenanthrene	0.21	1.05	NS	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400
Pyrene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
<b>03 - General Chemistry, mg/L</b>														
Cyanide CN-	0.2	0.6	NS	< 0.005	0.042	0.024	0.409	0.409	0.024	0.020	< 0.005	< 0.005	< 0.005	0.029
<b>04 - Metals, mg/L</b>														
Arsenic	0.05	0.2	NS	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250
Barium	2	2	NS	0.0619	0.0584	0.0910	0.148	0.139	0.146	0.103	0.0506 J+	0.0796	0.130	0.127
Cadmium	0.005	0.05	NS	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Chromium	0.1	1	NS	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0666	< 0.0050	0.136	< 0.0050
Lead	0.0075	0.1	NS	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Mercury	0.002	0.01	0.053	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Selenium	0.05	0.05	NS	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400
Silver	0.05	NS	NS	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070

Notes:

Blue highlight = Exceeds RO for Class I Groundwater Ingestion

Green highlight = Exceeds RO for Class II Groundwater Ingestion

**Bold** = Exceeds RO for Groundwater Inhalation - Diffusion and Advection for Residential

< = Compound not detected at concentrations above the laboratory reporting detection limit.

The laboratory reporting detection limit is shown.

Empty cells = not analyzed

N = Normal Environmental Sample

FD = Field Duplicate Sample

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mg/L = milligrams per liter

Qualifiers - Inorganic:

B = Reported value is < CRDL, but >= IDL.

BU = Compound was found in the blank and sample; analyte was analyzed but not detected.

Interpreted Qualifiers:

U = Nondetected

UU = Nondetected, estimated report limit

J- = Detected Results are estimated with a low bias

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R = RPD outside accepted recovery limits

All analyses performed by TekLab.

CLASS I GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS I GROUNDWATER INGESTION.

CLASS II GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS II GROUNDWATER INGESTION.

GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL = IEPA TACO Tier 1 GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL.

Non-TACO Class I and Class II Groundwater Objectives applied for Acenaphthylene,

Environmental Resources Management, Inc.  
Project No. W0009  
Third Quarter 2019

**TABLE 2**  
**Summary of Analytical Results**  
**August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Location Group			Shallow Wells (Class 2 Groundwater Ingestion)										
			Location ID	UMW-119	UMW-120	UMW-121	UMW-122	UMW-123	UMW-124	DUP 002	UMW-125	UMW-126	UMW-127
			Sample Date	8/19/2019	8/19/2019	8/21/2019	8/20/2019	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019
			Sample Type	N	N	N	N	N	N	FD	N	N	N
<b>Parameter/Analyte</b>	<b>CLASS I GROUNDWATER INGESTION</b>	<b>CLASS II GROUNDWATER INGESTION</b>	<b>GW INHALATION DIFFUSION &amp; ADVECTION</b>										
pH				7.14	7.18	6.73	7.06	7.03	10.92		9.88	8.07	12.39
Specific Conductance ( $\mu\text{S}/\text{cm}$ )				606	611	994	1749	785	1438		2312	1705	2585
Temperature (°C)				17.2	20.2	20.5	17.5	18.9	19.1		17.4	20.5	19.4
ORP (mV)				115.8	48.2	81.2	63.3	72.7	-185.1		135.9	-244.6	-343.2
Dissolved Oxygen (mg/L)				0.61	1.02	0.59	0.33	2.07	0.16		0.11	0.06	0.07
Turbidity (NTU)				10.3	7.57	15	2.78	1.26	29.2		6.03	10.4	88.5
<b>01 - BTEX, mg/L</b>													
Benzene	0.005	0.025	0.11	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.104	0.116	0.0065	0.109	0.0024
Ethylbenzene	0.7	1	0.37	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	0.0029	0.0138	< 0.0020	0.0143	< 0.0020
Toluene	1	2.5	530	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	0.0767	< 0.0020	0.0804	< 0.0020
Xylene, Total	10	10	30	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0386	< 0.0040	0.0391	< 0.0040
<b>02 - PAH, mg/L</b>													
Acenaphthene	0.42	2.1	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	0.000471	< 0.000100	0.000616	0.000199
Acenaphthylene	0.21	1.05	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	0.000311	< 0.000100	0.000382	< 0.000100
Anthracene	2.1	10.5	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)anthracene	0.00013	0.00065	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)pyrene	0.0002	0.002	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(b)fluoranthene	0.00018	0.0009	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(g,h,i)perylene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Benz(k)fluoranthene	0.00017	0.00085	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Chrysene	0.0015	0.0075	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Dibenzo(a,h)anthracene	0.0003	0.0015	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Fluoranthene	0.28	1.4	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Fluorene	0.28	1.4	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	0.000167	< 0.000100	0.000218	0.000159
Indeno(1,2,3-cd)pyrene	0.00043	0.00215	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Naphthalene	0.14	0.22	0.075	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	0.0125 J+	0.0436	0.000517 J+	0.0634
Phenanthrene	0.21	1.05	NS	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	0.000445
Pyrene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
<b>03 - General Chemistry, mg/L</b>													
Cyanide CN-	0.2	0.6	NS	0.035	< 0.005	0.099	0.013	< 0.005	< 0.005	0.012	0.031	< 0.005	< 0.005
<b>04 - Metals, mg/L</b>													
Arsenic	0.05	0.2	NS	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250
Barium	2	2	NS	0.0927	0.0337 J+	0.120	0.0450 J+	0.0217 J+	0.0495 J+	0.0310 J+	0.0219 J+	0.0303 J+	0.168
Cadmium	0.005	0.05	NS	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Chromium	0.1	1	NS	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Lead	0.0075	0.1	NS	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Mercury	0.002	0.01	0.053	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Selenium	0.05	0.05	NS	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400
Silver	0.05	NS	NS	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070

Notes:

Blue highlight = Exceeds RO for Class I Groundwater Ingestion

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mg/L = milligrams per liter

Qualifiers - Inorganic:

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J- = Detected Results are estimated with a low bias

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All analyses performed by TekLab.

CLASS I GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS I GROUNDWATER INGESTION.

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Non-TACO Class I and Class II Groundwater Objectives applied for Acenaphthylene,

Environmental Resources Management, Inc.  
Project No. W0009  
Third Quarter 2019

**TABLE 2**  
**Summary of Analytical Results**  
**August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Location Group			Intermediate Wells (Class 1 Groundwater Ingestion)										
			Location ID	UMW-300	UMW-301R	UMW-302	DUP 003	UMW-303	UMW-304R	UMW-305	UMW-306	UMW-307	UMW-308
			Sample Date	8/19/2019	8/21/2019	8/21/2019	8/21/2019	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/20/2019	8/21/2019
			Sample Type	N	N	N	FD	N	N	N	N	N	
<b>Parameter/Analyte</b>	<b>CLASS I GROUNDWATER INGESTION</b>	<b>CLASS II GROUNDWATER INGESTION</b>	<b>GW INHALATION DIFFUSION &amp; ADVECTION</b>										
pH				7.02	7.89	7.30		7.29	7.69	7.22	7.29	7.32	7.56
Specific Conductance ( $\mu\text{S}/\text{cm}$ )				1384	840	1209		883	949	940	1044	1112	963
Temperature (°C)				16.5	16.3	15.4		15.3	15.5	15.3	15.1	15.4	16.0
ORP (mV)				-33.3	36.5	-132.4		-60.9	-117.9	-108.6	-112.6	-122.8	-120.4
Dissolved Oxygen (mg/L)				0.63	0.19	0.19		0.19	0.33	0.27	0.30	0.23	0.76
Turbidity (NTU)				0.49	9.55	0.42		11	6.91	3.61	2.71	50	
<b>01 - BTEX, mg/L</b>													
Benzene	0.005	0.025	0.11	< 0.0005 UJ	< 0.0005	<b>0.188</b>	<b>0.215</b>	< 0.0005	< 0.0005	< 0.0005	< 0.0005 UJ	< 0.0005	
Ethylbenzene	0.7	1	0.37	< 0.0020 UJ	< 0.0020	<b>0.697</b>	<b>0.741</b>	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020 UJ	< 0.0020
Toluene	1	2.5	530	< 0.0020 UJ	< 0.0020	< 0.0400	0.0075	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020 UJ	< 0.0020
Xylene, Total	10	10	30	< 0.0040 UJ	< 0.0040	0.179	0.228	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040 UJ	< 0.0040
<b>02 - PAH, mg/L</b>													
Acenaphthene	0.42	2.1	NS	< 0.000100	0.00317	0.000467	0.000358	< 0.000100	0.000313	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Acenaphthylene	0.21	1.05	NS	< 0.000100	0.00403	0.000498	0.000370	< 0.000100	0.000697	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Anthracene	2.1	10.5	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)anthracene	0.00013	0.00065	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(a)pyrene	0.0002	0.002	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(b)fluoranthene	0.00018	0.0009	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Benz(g,h,i)perylene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Benz(k)fluoranthene	0.00017	0.00085	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Chrysene	0.0015	0.075	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Dibenzo(a,h)anthracene	0.0003	0.0015	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Fluoranthene	0.28	1.4	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Fluorene	0.28	1.4	NS	< 0.000100	0.000245	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Indeno(1,2,3-cd)pyrene	0.00043	0.00215	NS	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100	< 0.000100
Naphthalene	0.14	0.22	<b>0.075</b>	< 0.000200	< 0.000200	<b>1.68</b>	<b>1.14</b>	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
Phenanthrene	0.21	1.05	NS	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400	< 0.000400
Pyrene	0.21	1.05	NS	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200
<b>03 - General Chemistry, mg/L</b>													
Cyanide CN-	0.2	0.6	NS	< 0.005	< 0.005 R	0.152	0.146	< 0.005	< 0.005	0.008	0.020	0.032	0.015
<b>04 - Metals, mg/L</b>													
Arsenic	0.05	0.2	NS	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250
Barium	2	2	NS	0.0942	0.0762	0.0608	0.0603	0.0408 J+	0.0811	0.0970	0.120	0.109	0.116
Cadmium	0.005	0.05	NS	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Chromium	0.1	1	NS	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Lead	0.0075	0.1	NS	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075	< 0.0075
Mercury	0.002	0.01	0.053	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Selenium	0.05	0.05	NS	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400
Silver	0.05	NS	NS	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070	< 0.0070

Notes:

Blue highlight = Exceeds RO for Class I Groundwater Ingestion

Green highlight = Exceeds RO for Class II Groundwater Ingestion

**Bold** = Exceeds RO for Groundwater Inhalation - Diffusion and Advection for Residential

< = Compound not detected at concentrations above the laboratory reporting detection limit.

The laboratory reporting detection limit is shown.

Empty cells = not analyzed

N = Normal Environmental Sample

FD = Field Duplicate Sample

EB = Equipment Blank Sample

TB = Trip Blank Sample

NS = No Standard

mg/L = milligrams per liter

Qualifiers - Inorganic:

B = Reported value is < CRDL, but >= IDL.

BU = Compound was found in the blank and sample; analyte was analyzed but not detected.

Interpreted Qualifiers:

U = Nondetected

UU = Nondetected, estimated report limit

J- = Detected Results are estimated with a low bias

J+ = Detected Results are estimated with a high bias

R = RPD outside accepted recovery limits

All analyses performed by TekLab.

CLASS I GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS I GROUNDWATER INGESTION.

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Non-TACO Class I and Class II Groundwater Objectives applied for Acenaphthylene,

Environmental Resources Management, Inc.  
Project No. W0009  
Third Quarter 2019

**TABLE 2**  
**Summary of Analytical Results**  
**August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Parameter/Analyte	Location Group		03 - Field Quality Control		
	Location ID		Equipment Blank	Trip Blank	
	Sample Date		8/21/2019	8/22/2019	
	Sample Type		EB	TB	
pH	CLASS I GROUNDWATER INGESTION	CLASS II GROUNDWATER INGESTION	GW INHALATION DIFFUSION & ADVECTION		
Specific Conductance ( $\mu\text{S}/\text{cm}$ )					
Temperature (°C)					
ORP (mV)					
Dissolved Oxygen (mg/L)					
Turbidity (NTU)					
<b>01 - BTEX, mg/L</b>					
Benzene	0.005	0.025	0.11	< 0.0005	< 0.0005
Ethylbenzene	0.7	1	0.37	< 0.020	< 0.020
Toluene	1	2.5	530	< 0.020	< 0.020
Xylene, Total	10	10	30	< 0.0040	< 0.0040
<b>02 - PAH, mg/L</b>					
Acenaphthene	0.42	2.1	NS	< 0.000100	
Acenaphthylene	0.21	1.05	NS	< 0.000100	
Anthracene	2.1	10.5	NS	< 0.000100	
Benz(a)anthracene	0.00013	0.00065	NS	< 0.000100	
Benz(a)pyrene	0.0002	0.002	NS	< 0.000100	
Benz(b)fluoranthene	0.00018	0.0009	NS	< 0.000100	
Benz(g,h,i)perylene	0.21	1.05	NS	< 0.000200	
Benz(k)fluoranthene	0.00017	0.00085	NS	< 0.000100	
Chrysene	0.0015	0.0075	NS	< 0.000100	
Dibenz(a,h)anthracene	0.0003	0.0015	NS	< 0.000100	
Fluoranthene	0.28	1.4	NS	< 0.000200	
Fluorene	0.28	1.4	NS	< 0.000100	
Indeno(1,2,3-cd)pyrene	0.00043	0.00215	NS	< 0.000100	
Naphthalene	0.14	0.22	0.075	0.000401	
Phenanthrene	0.21	1.05	NS	< 0.000400	
Pyrene	0.21	1.05	NS	< 0.000200	
<b>03 - General Chemistry, mg/L</b>					
Cyanide CN-	0.2	0.6	NS	< 0.005	
<b>04 - Metals, mg/L</b>					
Arsenic	0.05	0.2	NS	< 0.025	
Barium	2	2	NS	0.0056	
Cadmium	0.005	0.05	NS	< 0.0020	
Chromium	0.1	1	NS	< 0.0050	
Lead	0.0075	0.1	NS	< 0.0075	
Mercury	0.002	0.01	0.053	< 0.0020	
Selenium	0.05	0.05	NS	< 0.0400	
Silver	0.05	NS	NS	< 0.0070	

Notes:

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UU = Nondetected, estimated report limit

J- = Detected Results are estimated with a low bias

J+ = Detected Results are estimated with a high bias

R = RPD outside accepted recovery limits

All analyses performed by TekLab.

CLASS I GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS I GROUNDWATER INGESTION.

CLASS II GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS II GROUNDWATER INGESTION.

GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL = IEPA TACO Tier 1 GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL.

Non-TACO Class I and Class II Groundwater Objectives applied for Acenaphthylene, Ethylbenzene, and Phenanthrene. (Revision Date 3/31/2016)  
 Environmental Resources Management, Inc.  
 Project No. W0009  
 Third Quarter 2019

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:

Exceeds RO for Class I Groundwater Ingestion Pathway

Exceeds RO for Class II Groundwater Ingestion Pathway

**Bold**

Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylene, total (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Anthracene (mg/L)	Benzo(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo(b) fluoranthene (mg/L)	Benzo(g,h,i) perylene (mg/L)
UMW-102	10/10/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/17/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/3/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001 UJ	< 0.0001 BU	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	3/4/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	5/13/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	8/19/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-105	10/12/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/7/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/27/2018	< 0.0005	0.004	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/19/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/5/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU UJ	< 0.0001 BU UJ
	3/6/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	0.000135	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/15/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/21/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-106R	10/11/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/6/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/25/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU UJ	< 0.0001 BU UJ
	3/5/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/20/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-107R	10/11/2017	0.0039	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/6/2017	0.0219	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/27/2018	0.0076	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	0.0045	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/5/2018	0.0038	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	3/5/2019	0.0021	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	0.0033	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/20/2019	0.0006	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-108	10/10/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/5/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU UJ	< 0.0001 BU UJ
	3/5/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/20/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-109	10/10/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/5/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/17/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU UJ	< 0.0001 BU UJ
	3/5/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/13/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/20/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h) anthracene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Cyanide, total (mg/L)
UMW-102	10/10/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.005
	12/4/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0004	<0.001	<0.005
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0004	<0.001	<0.005
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.002 BU	<0.005
	3/4/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	0.000116	<0.0002	<0.0004	<0.002	<0.005
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.002	<0.005
	8/19/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.002	<0.005
UMW-105	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.056
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.049
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.0162	<0.0004	<0.0001	0.057
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.049
	12/5/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.057
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.045
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.044
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.042
UMW-106R	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.038
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.044
	6/25/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.017
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.022
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.018
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.014
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.007
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.024
UMW-107R	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.363
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.509
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.453
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.381
	12/5/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.385
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.333
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.406
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.409
UMW-108	10/10/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.03
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.029
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.030
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.032
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.028
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.027
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.021
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.024
UMW-109	10/10/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	0.036
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.031
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.036
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.024
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.010
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.017
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.020

**TABLE 3**  
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**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

## Notes

Exceeds RO for Class I Groundwater Ingestion Pathway

Exceeds RO for Class II Groundwater Ingestion Pathway

## **Bold**

## Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h) anthracene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Cyanide, total (mg/L)
UMW-111A	10/10/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 BU	<0.005
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
UMW-116	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/25/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000206	<0.0004	<0.0001	<0.005
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	<0.005
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0004	<0.0002	<0.005
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0004	<0.0002	<0.005
UMW-117	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/25/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	<0.005
	3/5/2019	<0.0001	0.000102	<0.000102	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/20/2019	<0.000192	<0.000192	<0.000192	<0.000385	<0.000192	<0.000192	<0.000385	<0.000769	<0.000385	<0.005
UMW-118	10/10/2017	0.00009	0.00009	<0.0001	0.00019	<0.0001	0.0001	<0.0001	<0.0001	0.00093	0.056
	12/5/2017	0.00016	0.00013	<0.0001	0.00026	<0.0001	<0.0001	<0.0001	<0.0001	0.00115	0.059
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.031
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.034
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.043
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.028
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.028
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.029
UMW-119	10/11/2017	<0.0001	0.00015	<0.0001	0.00031	<0.0001	<0.0001	<0.0001	0.00016	0.00044	0.033
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.039
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.036
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.033
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 BU	0.026
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.031
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.027
	8/19/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.035
UMW-120	10/9/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.007
	12/4/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/3/2018	<0.000167	<0.000167	<0.000167	<0.00033 BU	<0.000167	<0.000167	<0.00033	<0.000667	<0.00033 BU	<0.005
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/19/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:

Exceeds RO for Class I Groundwater Ingestion Pathway

Exceeds RO for Class II Groundwater Ingestion Pathway

**Bold**

Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylene, total (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Anthracene (mg/L)	Benzo(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo(b) fluoranthene (mg/L)	Benzo(g,h,i) perylene (mg/L)
UMW-121	10/12/2017	<0.002	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	<0.002	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0001 BU
	3/6/2019	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-122	9/18/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/4/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0001 BU
	3/5/2019	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/14/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/20/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-123	10/11/2017	<0.002	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/6/2017	<0.002	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/26/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/18/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/4/2018	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0001 BU
	3/5/2019	<0.0005	< 0.002	< 0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/14/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/20/2019	<0.0005	< 0.002	< 0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-124	10/13/2017	<b>0.0713</b>	0.0065	0.0276	0.0171	0.00038	0.00019	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	<b>0.120</b>	0.0110	0.0558	0.032	0.00052	0.0003	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/25/2018	<b>0.0975</b>	0.0091	0.0469	0.024	0.000486	0.000272	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<b>0.0869</b>	0.009	0.0415	0.0236	0.000469	0.000248	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<b>0.0664</b>	0.0067	0.0313	0.018	0.000326	0.000187	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 UJ
	3/6/2019	<b>0.145</b>	0.0128	0.0743	0.0364	0.000586	0.00033	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<b>0.166</b>	0.0177	0.103	0.048	0.000667	0.000405	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<b>0.104</b>	0.0029	<0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-125	10/12/2017	<b>0.0432</b>	0.0013	0.002	0.0014	0.00013	<0.0001	<0.0001	<0.0001	0.00008	<0.0001	<0.0001
	12/8/2017	<b>0.0051</b>	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<b>0.0091</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<b>0.0078</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<b>0.0007</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0001 BU
	3/6/2019	<b>0.0037</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<b>0.0040</b>	<0.002	<0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<b>0.0065</b>	<0.002	<0.002	< 0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-126	10/12/2017	0.0052	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	0.0115	<0.005	<0.005	< 0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<b>0.061</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	0.108	<0.002	0.0034	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<b>0.0261</b>	<0.002	<0.002	< 0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 UJ
	3/6/2019	<b>0.142</b>	<0.002	0.0046	0.0022	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/14/2019	<b>0.195</b>	0.0038	0.0337	0.0068	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	0.109	0.0143	0.0804	0.0391	0.000616	0.000382	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h) anthracene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Cyanide, total (mg/L)
UMW-121	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.166
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.177
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.141
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.138
	12/5/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.108
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.122
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.098
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.099
UMW-122	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.027
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.028
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.017
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.013
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.013
UMW-123	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00011	<0.0001	<0.0001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	<0.005
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
UMW-124	10/13/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00017	<0.0001	0.0304	<0.0001	<0.0001	0.008
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00017	<0.0001	0.0454	0.00021	<0.0001	0.011
	6/25/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000179	<0.0001	0.0449	<0.0004	<0.0001	0.010
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000142	<0.0001	0.0489	<0.0004	<0.0001	0.010
	12/5/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000109	<0.0001	<0.00255 U	<0.0004	<0.0002	0.008
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000204	<0.0001	0.0652	<0.0004	<0.0002	0.011
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000253	<0.0001	0.0709	<0.0004	<0.0002	0.007
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.00125	<0.0004	<0.0002	<0.005
UMW-125	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00319	0.00031	<0.0001	0.028
	12/8/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00079	<0.0001	<0.0001	0.029
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000748	<0.0004	<0.0001	0.038
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.00102	<0.0004	<0.0001	0.048
	12/5/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.055
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.041
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000338	<0.0004	<0.0002	0.033
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000517	<0.0004	<0.0002	0.031
UMW-126	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00029	<0.0001	<0.0001	0.005
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.000385	<0.0004	<0.0001	<0.005
	12/5/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.000505 U	<0.0004	<0.0002	<0.005
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.00195	<0.0004	<0.0002	<0.005
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.0634	<0.0004	<0.0002	<0.005

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylene, total (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Anthracene (mg/L)	Benzo(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo(b) fluoranthene (mg/L)	Benzo(g,h,i) perylene (mg/L)
UMW-127	10/12/2017	0.0049	<0.005	<0.005	<0.005	0.00014	0.00247	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	0.0049	<0.005	0.001	<0.005	0.00017	0.000105	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	0.0031	<0.002	<0.002	<0.002	0.00022	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	0.0029	<0.002	<0.002	<0.002	0.000238	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/3/2018	0.0021	<0.002	<0.002	<0.002	0.000171	<0.0001 UJ	<0.0001 BU	<0.0001	<0.0001	<0.0001	<0.0001
	3/6/2019	0.0012	<0.002	<0.002	<0.002	0.000149	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/14/2019	0.0021	<0.002	<0.002	<0.004	0.000202	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	0.0024	<0.002	<0.002	<0.004	0.000199	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-300	10/10/2017	<0.002	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2017	<0.0005	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/26/2018	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/17/2018	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/3/2018	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001 UJ	<0.0001 BU	<0.0001	<0.0001	<0.0001	<0.0001
	3/5/2019	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/13/2019	<0.0005	<0.002	<0.002	<0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/19/2019	<0.0005	<0.002	<0.002	<0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-301R	10/12/2017	<0.002	<0.005	<0.005	<0.005	0.00241	0.00277	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	<0.002	<0.005	<0.005	<0.005	0.00263	0.0031	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<0.0005	<0.002	<0.002	<0.002	0.00411	0.00488	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<0.0005	<0.002	<0.002	<0.002	0.00274	0.00337	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<0.0005	<0.002	<0.002	<0.002	0.00349	0.00425	<0.0001	<0.0001	<0.0001	<0.0001 UJ	<0.0001
	3/6/2019	<0.0005	<0.002	<0.002	<0.002	0.00407	0.00423	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<0.0005	<0.002	<0.002	<0.004	0.00317	0.00328	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<0.0005	<0.002	<0.002	<0.004	0.00317	0.00403	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-302	10/12/2017	<b>0.348</b>	<b>0.628</b>	<0.05	0.133	0.00011	0.00051	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/7/2017	<b>0.502</b>	<b>0.771</b>	<0.05	0.182	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<b>0.407</b>	<b>0.703</b>	<0.02	0.175	0.000349	0.000474	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<b>0.409</b>	<b>0.751</b>	<0.02	0.198	0.000456	0.000652	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2018	<b>0.511</b>	<b>0.886</b>	<0.02	0.238	0.000368	0.00053	<0.0001	<0.0001	<0.0001	<0.0001 UJ	<0.0001
	3/6/2019	<b>0.516</b>	<b>0.929</b>	<0.02	0.247	0.000469	0.000593	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<b>0.288</b>	<b>0.751</b>	0.0094	0.228	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<b>0.188</b>	<b>0.697</b>	<0.04	0.179	0.000467	0.000498	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-303	10/11/2017	<0.002	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/5/2017	<0.002	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/25/2018	<0.0005	<0.002	<0.002	<0.002	0.000111	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/18/2018	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/4/2018	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001 UJ	<0.0001
	3/5/2019	<0.0005	<0.002	<0.002	<0.002	<0.0001	<0.0001	<0.0001	<0.0001 UJ	<0.0001 UJ	<0.0001 UJ	<0.0002
	5/15/2019	<0.0005	<0.002	<0.002	<0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/20/2019	<0.0005	<0.002	<0.002	<0.004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
UMW-304R	10/12/2017	<0.002	<0.005	<0.005	<0.005	0.00071	0.0014	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/8/2017	<0.002	<0.005	<0.005	<0.005	0.00067	0.00149	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	6/27/2018	<0.0005	<0.002	<0.002	<0.002	0.000486	0.00108	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	9/19/2018	<0.0005	<0.002	<0.002	<0.002	0.000539	0.00127	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	12/3/2018	<0.0005	<0.002	<0.002	<0.002	0.00055	0.00139 J-	<0.0001 BU	<0.0001	<0.0001	<0.0001	<0.0001
	3/6/2019	<0.0005	<0.002	<0.002	<0.002	0.000608	0.00131	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	5/15/2019	<0.0005	<0.002	<0.002	<0.004	0.000348	0.000778	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
	8/21/2019	<0.0005	<0.002	<0.002	<0.004	0.000313	0.000697	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h) anthracene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Cyanide, total (mg/L)
UMW-127	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00016	<0.0001	0.00184	0.0004	<0.0001	<0.005
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00015	<0.0001	0.00264	0.00033	<0.0001	<0.005
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000176	<0.0001	0.00192	0.000449	<0.0001	<0.005
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.00017	<0.0001	<0.0022	0.000451	<0.0001	<0.005
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	0.000134	<0.0001	<0.00169 U	<0.0004	<0.0002 BU	<0.005
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.00011	<0.0001	<0.000631 U	<0.0004	<0.0002	<0.005
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000134	<0.0001	0.00138	<0.0004	<0.0002	<0.005
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000159	<0.0001	0.00045	0.000445	<0.0002	<0.005
UMW-300	10/10/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/17/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 BU	<0.005
	3/5/2019	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/13/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/19/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
UMW-301R	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00012	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	0.00011	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000241	<0.0001	0.000294	<0.0004	<0.0001	<0.005
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000142	<0.0001	0.000238	<0.0004	<0.0001	<0.005
	12/5/2018	<0.0001	<0.0001	<0.0001	<0.0002	0.000162	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000237	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000166	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000245	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
UMW-302	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<b>2.29</b>	<0.0001	<0.0001	0.117
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<b>2.05</b>	<0.0001	<0.0001	0.067
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>1.96</b>	<0.0004	<0.0001	0.091
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>3.53</b>	<0.0004	<0.0001	0.113
	12/5/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<2.2U	<0.0004	<0.0002	0.134
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>2.83</b>	<0.0004	<0.0002	0.120
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>2.65</b>	<0.0004	<0.0002	0.130
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>1.68</b>	<0.0004	<0.0002	0.152
UMW-303	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	12/5/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/25/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	<0.005
	12/4/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.000188 U	<0.0004	<0.0002	<0.005
	3/5/2019	<0.0001 UJ	<0.0001 UJ	<0.0001 UJ	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 UJ	<0.005
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.00238	<0.0004	<0.0002	<0.005
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005
UMW-304R	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.007
	12/8/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<b>0.0064</b>	<0.0001	<0.0001	<0.005
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>0.00576</b>	<0.0004	<0.0001	<0.005
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<b>&lt;0.0002</b>	<0.0004	<0.0001	<0.005
	12/3/2018	<0.0001	<0.0001	<0.0001	<0.0002 BU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 BU	<0.005
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.00106 U	<0.0004	<0.0002	<0.005
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000472	<0.0004	<0.0002	<0.005
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	<0.005

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:

Exceeds RO for Class I Groundwater Ingestion Pathway

Exceeds RO for Class II Groundwater Ingestion Pathway

**Bold**

Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylene, total (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Anthracene (mg/L)	Benzo(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo(b) fluoranthene (mg/L)	Benzo(g,h,i) perylene (mg/L)
UMW-305	10/12/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/6/2017	< 0.002	< 0.005	< 0.005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU	< 0.0001 BU
	3/6/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	< 0.0005	< 0.002	< 0.002	< 0.004	0.000283	0.000283	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/21/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-306	10/11/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/6/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001 UJ	< 0.0001
	3/6/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/21/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-307	10/11/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/6/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/26/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/18/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001 UJ	< 0.0001
	3/6/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/14/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/20/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
UMW-308	10/13/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/7/2017	< 0.002	< 0.0005	< 0.0005	< 0.005	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	6/27/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/19/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	0.000134	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	12/4/2018	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001 UJ	< 0.0001
	3/6/2019	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	5/15/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002
	8/21/2019	< 0.0005	< 0.002	< 0.002	< 0.004	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002

**TABLE 3**  
**Analytical Results by Parameter**  
**October 2017 to August 2019**  
**Ameren - Champaign FMGP Site**  
**Champaign, Illinois**

Notes:  
  Exceeds RO for Class I Groundwater Ingestion Pathway  
  Exceeds RO for Class II Groundwater Ingestion Pathway  
**Bold** Exceeds RO for Groundwater Indoor Inhalation Pathway - Diffusion and Advection for Residential Sites

Well ID	Date Sampled	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h) anthracene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Cyanide, total (mg/L)
UMW-305	10/12/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00043	<0.0001	<0.0001	0.009
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.00043	<0.0001	<0.0001	0.012
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000366	<0.0004	<0.0001	0.014
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.012
	12/4/2018	<0.0001 BU	<0.0001 BU	<0.0001 BU	<0.0002	<0.0001	<0.0001 BU	<0.0002	<0.0004	<0.0002	0.011
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002 UJ	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.007
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	0.000113	<0.0001	<b>0.910</b>	<0.0004	<0.0002	0.011
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.008
UMW-306	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.033
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.014
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.018
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.019
	12/4/2018	<0.0001	<0.0001	<0.0001	<0.0002 SU	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002 SU	0.014
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.014
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.000352	<0.0004	<0.0002	0.014
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.020
UMW-307	10/11/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.027
	12/6/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.043
	6/26/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.048
	9/18/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.053
	12/4/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.046
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.056
	5/14/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.046
	8/20/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.032
UMW-308	10/13/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.02
	12/7/2017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005
	6/27/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0001	0.022
	9/19/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.005	<0.0004	0.000107	0.018
	12/4/2018	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.00025 U	<0.0004	<0.0002	0.018
	3/6/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.011
	5/15/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.022
	8/21/2019	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0004	<0.0002	0.015

Notes:  
 < = Compound not detected at concentrations above the laboratory reporting detection limit.  
 The laboratory reporting detection limit is shown.  
 Empty cells = not analyzed.  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 EB = Equipment Blank Sample  
 TB = Trip Blank Sample  
 NS = No Standard  
 mg/L = milligrams per liter  
 Qualifiers - Inorganic:  
 B = Reported value is < CRDL, but >= IDL.  
 BU = Compound was found in the blank and sample; analyte was analyzed but not detected.  
 Interpreted Qualifiers:  
 U = Undetected  
 UJ = Undetected, estimated report limit  
 J+ = Detected Results are estimated with a low bias  
 J+ = Detected Results are estimated with a high bias  
 R = RPD outside accepted recovery limits  
 All analyses performed by TekLab.  
 CLASS I GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS I GROUNDWATER INGESTION.  
 CLASS II GROUNDWATER INGESTION = IEPA TACO Tier 1 CLASS II GROUNDWATER INGESTION.  
 GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL = IEPA TACO Tier 1 GW INHALATION DIFFUSION & ADVECTION RESIDENTIAL.  
 Non-TACO Class I and Class II Groundwater Objectives applied for Acenaphthylene, Benzo(g,h,i)perylene, and Phenanthrene. (Revision Date 3/31/2016)

***Attachment 1***

***Laboratory Analytical Reports  
and Data Validation Summary***

August 29, 2019

Greg Moore  
ERM  
2 CityPlace Drive, Suite 70  
St. Louis, MO 63141  
TEL: (314) 238-6162  
FAX:



**RE:** Champaign GW

**WorkOrder:** 19081552

Dear Greg Moore:

TEKLAB, INC received 33 samples on 8/22/2019 4:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Project Manager  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Accreditations	5
Laboratory Results	6
Sample Summary	39
Dates Report	40
Quality Control Results	49
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Chain of Custody	Appended

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surrogate Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count ( > 200 CFU )

### Qualifiers

# - Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level



## Case Narrative

<http://www.teklabinc.com/>

**Client:** ERM

**Client Project:** Champaign GW

**Work Order:** 19081552

**Report Date:** 29-Aug-2019

**Cooler Receipt Temp:** 2.4 °C

---

### Locations

<b>Collinsville</b>	
<b>Address</b>	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
<b>Phone</b>	(618) 344-1004
<b>Fax</b>	(618) 344-1005
<b>Email</b>	jhriley@teklabinc.com

<b>Collinsville Air</b>	
<b>Address</b>	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
<b>Phone</b>	(618) 344-1004
<b>Fax</b>	(618) 344-1005
<b>Email</b>	EHurley@teklabinc.com

<b>Springfield</b>	
<b>Address</b>	3920 Pintail Dr Springfield, IL 62711-9415
<b>Phone</b>	(217) 698-1004
<b>Fax</b>	(217) 698-1005
<b>Email</b>	KKlostermann@teklabinc.com

<b>Chicago</b>	
<b>Address</b>	1319 Butterfield Rd. Downers Grove, IL 60515
<b>Phone</b>	(630) 324-6855
<b>Fax</b>	
<b>Email</b>	arenner@teklabinc.com

<b>Kansas City</b>	
<b>Address</b>	8421 Nieman Road Lenexa, KS 66214
<b>Phone</b>	(913) 541-1998
<b>Fax</b>	(913) 541-1998
<b>Email</b>	jhriley@teklabinc.com

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

<b>State</b>	<b>Dept</b>	<b>Cert #</b>	<b>NELAP</b>	<b>Exp Date</b>	<b>Lab</b>
Illinois	IEPA	100226	NELAP	1/31/2020	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2020	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2020	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2020	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2020	Collinsville
Arkansas	ADEQ	88-0966		3/14/2020	Collinsville
Illinois	IDPH	17584		5/31/2019	Collinsville
Indiana	ISDH	C-IL-06		1/31/2020	Collinsville
Kentucky	KDEP	98006		12/31/2019	Collinsville
Kentucky	UST	0073		1/31/2020	Collinsville
Louisiana	LDPH	LA016		12/31/2019	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2019	Collinsville
Tennessee	TDEC	04905		1/31/2020	Collinsville

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-001

Client Sample ID: UMW-102-WG-20190819

Matrix: GROUNDWATER

Collection Date: 08/19/2019 16:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 13:05	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:23	156700
Barium	NELAP	0.0025		0.0619	mg/L	1	08/26/2019 18:23	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:23	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 18:23	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:23	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:23	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:23	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 16:56	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 16:33	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 16:33	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 16:33	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 16:33	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 16:33	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 16:33	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		72.0	%REC	1	08/26/2019 16:33	156710
Surr: Nitrobenzene-d5	*	15-163		75.9	%REC	1	08/26/2019 16:33	156710
Surr: p-Terphenyl-d14	*	10-173		104.4	%REC	1	08/26/2019 16:33	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 18:06	156688
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:06	156688
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:06	156688
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 18:06	156688
Surr: 1,2-Dichloroethane-d4	*	79.6-118		100.8	%REC	1	08/23/2019 18:06	156688
Surr: 4-Bromofluorobenzene	*	83.9-115		104.0	%REC	1	08/23/2019 18:06	156688
Surr: Dibromofluoromethane	*	84.9-113		100.4	%REC	1	08/23/2019 18:06	156688
Surr: Toluene-d8	*	86.7-112		96.1	%REC	1	08/23/2019 18:06	156688

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-002

Client Sample ID: UMW-105-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 11:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.042	mg/L	1	08/26/2019 11:25	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:26	156700
Barium	NELAP	0.0025		0.0584	mg/L	1	08/26/2019 18:26	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:26	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 18:26	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:26	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:26	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:26	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 16:59	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 23:01	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 23:01	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 23:01	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 23:01	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 23:01	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 23:01	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		72.1	%REC	1	08/26/2019 23:01	156710
Surr: Nitrobenzene-d5	*	15-163		75.4	%REC	1	08/26/2019 23:01	156710
Surr: p-Terphenyl-d14	*	10-173		108.6	%REC	1	08/26/2019 23:01	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 18:32	156688
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:32	156688
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:32	156688
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 18:32	156688
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.0	%REC	1	08/23/2019 18:32	156688
Surr: 4-Bromofluorobenzene	*	83.9-115		102.8	%REC	1	08/23/2019 18:32	156688
Surr: Dibromofluoromethane	*	84.9-113		98.8	%REC	1	08/23/2019 18:32	156688
Surr: Toluene-d8	*	86.7-112		99.6	%REC	1	08/23/2019 18:32	156688

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-003

Client Sample ID: UMW-106R-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 19:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.024	mg/L	1	08/26/2019 13:13	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:37	156700
Barium	NELAP	0.0025		0.0910	mg/L	1	08/26/2019 18:37	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:37	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 18:37	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:37	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:37	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:37	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:05	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:16	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:16	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:16	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:16	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 17:16	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:16	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		75.1	%REC	1	08/26/2019 17:16	156710
Surr: Nitrobenzene-d5	*	15-163		72.9	%REC	1	08/26/2019 17:16	156710
Surr: p-Terphenyl-d14	*	10-173		101.8	%REC	1	08/26/2019 17:16	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 19:00	156688
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:00	156688
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:00	156688
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 19:00	156688
Surr: 1,2-Dichloroethane-d4	*	79.6-118		100.7	%REC	1	08/23/2019 19:00	156688
Surr: 4-Bromofluorobenzene	*	83.9-115		103.0	%REC	1	08/23/2019 19:00	156688
Surr: Dibromofluoromethane	*	84.9-113		99.0	%REC	1	08/23/2019 19:00	156688
Surr: Toluene-d8	*	86.7-112		96.3	%REC	1	08/23/2019 19:00	156688

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-004

Client Sample ID: UMW-107R-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 15:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.050		0.409	mg/L	10	08/26/2019 16:11	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:41	156700
Barium	NELAP	0.0025		0.148	mg/L	1	08/26/2019 18:41	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:41	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 18:41	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:41	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:41	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:41	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:08	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:55	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:55	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 17:55	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:55	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 17:55	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 17:55	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		78.5	%REC	1	08/26/2019 17:55	156710
Surr: Nitrobenzene-d5	*	15-163		75.6	%REC	1	08/26/2019 17:55	156710
Surr: p-Terphenyl-d14	*	10-173		108.5	%REC	1	08/26/2019 17:55	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 17:09	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 17:09	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 17:09	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 17:09	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		100.5	%REC	1	08/23/2019 17:09	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		100.6	%REC	1	08/23/2019 17:09	156712
Surr: Dibromofluoromethane	*	84.9-113		96.1	%REC	1	08/23/2019 17:09	156712
Surr: Toluene-d8	*	86.7-112		103.6	%REC	1	08/23/2019 17:09	156712

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-005

**Client Sample ID:** UMW-108-WG-20190820

**Matrix:** GROUNDWATER

**Collection Date:** 08/20/2019 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.024	mg/L	1	08/26/2019 13:22	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:45	156700
Barium	NELAP	0.0025		0.146	mg/L	1	08/26/2019 18:45	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:45	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 18:45	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:45	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:45	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:45	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:10	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 18:34	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 18:34	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 18:34	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 18:34	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 18:34	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 18:34	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		77.8	%REC	1	08/26/2019 18:34	156710
Surr: Nitrobenzene-d5	*	15-163		72.6	%REC	1	08/26/2019 18:34	156710
Surr: p-Terphenyl-d14	*	10-173		102.5	%REC	1	08/26/2019 18:34	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 17:36	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 17:36	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 17:36	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 17:36	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		100.8	%REC	1	08/23/2019 17:36	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		101.1	%REC	1	08/23/2019 17:36	156712
Surr: Dibromofluoromethane	*	84.9-113		96.0	%REC	1	08/23/2019 17:36	156712
Surr: Toluene-d8	*	86.7-112		103.0	%REC	1	08/23/2019 17:36	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-006

Client Sample ID: UMW-109-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.020	mg/L	1	08/26/2019 13:48	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 18:59	156700
Barium	NELAP	0.0025		0.103	mg/L	1	08/26/2019 18:59	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 18:59	156700
Chromium	NELAP	0.0050		0.0666	mg/L	1	08/26/2019 18:59	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 18:59	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 18:59	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 18:59	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:12	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:12	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:12	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:12	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:12	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 19:12	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:12	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		76.2	%REC	1	08/26/2019 19:12	156710
Surr: Nitrobenzene-d5	*	15-163		75.2	%REC	1	08/26/2019 19:12	156710
Surr: p-Terphenyl-d14	*	10-173		101.0	%REC	1	08/26/2019 19:12	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 18:03	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:03	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:03	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 18:03	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.3	%REC	1	08/23/2019 18:03	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		101.4	%REC	1	08/23/2019 18:03	156712
Surr: Dibromofluoromethane	*	84.9-113		96.2	%REC	1	08/23/2019 18:03	156712
Surr: Toluene-d8	*	86.7-112		103.1	%REC	1	08/23/2019 18:03	156712

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-007

Client Sample ID: UMW-111A-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 9:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 13:52	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:03	156700
Barium	NELAP	0.0025		0.0506	mg/L	1	08/26/2019 19:03	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:03	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:03	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:03	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:03	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:03	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:14	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:50	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:50	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 19:50	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:50	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 19:50	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 19:50	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		84.2	%REC	1	08/26/2019 19:50	156710
Surr: Nitrobenzene-d5	*	15-163		81.8	%REC	1	08/26/2019 19:50	156710
Surr: p-Terphenyl-d14	*	10-173		118.1	%REC	1	08/26/2019 19:50	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 18:30	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:30	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:30	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 18:30	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.8	%REC	1	08/23/2019 18:30	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		99.4	%REC	1	08/23/2019 18:30	156712
Surr: Dibromofluoromethane	*	84.9-113		96.4	%REC	1	08/23/2019 18:30	156712
Surr: Toluene-d8	*	86.7-112		102.3	%REC	1	08/23/2019 18:30	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-008

Client Sample ID: UMW-116-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 16:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 14:01	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:07	156700
Barium	NELAP	0.0025		0.0796	mg/L	1	08/26/2019 19:07	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:07	156700
Chromium	NELAP	0.0050		0.136	mg/L	1	08/26/2019 19:07	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:07	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:07	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:07	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:16	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 22:23	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 22:23	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 22:23	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 22:23	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 22:23	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 22:23	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		74.4	%REC	1	08/26/2019 22:23	156710
Surr: Nitrobenzene-d5	*	15-163		78.0	%REC	1	08/26/2019 22:23	156710
Surr: p-Terphenyl-d14	*	10-173		98.9	%REC	1	08/26/2019 22:23	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 18:56	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:56	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 18:56	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 18:56	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.3	%REC	1	08/23/2019 18:56	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		100.4	%REC	1	08/23/2019 18:56	156712
Surr: Dibromofluoromethane	*	84.9-113		97.2	%REC	1	08/23/2019 18:56	156712
Surr: Toluene-d8	*	86.7-112		103.5	%REC	1	08/23/2019 18:56	156712

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-009

Client Sample ID: UMW-117-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 14:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 14:06	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:10	156700
Barium	NELAP	0.0025		0.130	mg/L	1	08/26/2019 19:10	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:10	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:10	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:10	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:10	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:10	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:23	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Acenaphthylene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Anthracene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Benzo(a)anthracene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Benzo(a)pyrene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Benzo(b)fluoranthene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Benzo(g,h,i)perylene	NELAP	0.000385		ND	mg/L	1	08/27/2019 16:59	156710
Benzo(k)fluoranthene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Chrysene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Dibenzo(a,h)anthracene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Fluoranthene	NELAP	0.000385		ND	mg/L	1	08/27/2019 16:59	156710
Fluorene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000192		ND	mg/L	1	08/27/2019 16:59	156710
Naphthalene	NELAP	0.000385		ND	mg/L	1	08/27/2019 16:59	156710
Phenanthrene	NELAP	0.000769		ND	mg/L	1	08/27/2019 16:59	156710
Pyrene	NELAP	0.000385		ND	mg/L	1	08/27/2019 16:59	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		63.7	%REC	1	08/27/2019 16:59	156710
Surr: Nitrobenzene-d5	*	15-163		69.3	%REC	1	08/27/2019 16:59	156710
Surr: p-Terphenyl-d14	*	10-173		98.1	%REC	1	08/27/2019 16:59	156710
Elevated reporting limits due to limited sample upon re-extraction.								
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 19:23	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:23	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:23	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 19:23	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.4	%REC	1	08/23/2019 19:23	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		100.7	%REC	1	08/23/2019 19:23	156712
Surr: Dibromofluoromethane	*	84.9-113		96.0	%REC	1	08/23/2019 19:23	156712
Surr: Toluene-d8	*	86.7-112		103.0	%REC	1	08/23/2019 19:23	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-010

Client Sample ID: UMW-118-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 11:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.029	mg/L	1	08/26/2019 14:14	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:14	156700
Barium	NELAP	0.0025		0.127	mg/L	1	08/26/2019 19:14	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:14	156700
Chromium	NELAP	0.0050		0.0070	mg/L	1	08/26/2019 19:14	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:14	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:14	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:14	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:25	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 16:21	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 16:21	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 16:21	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 16:21	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 16:21	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 16:21	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		80.4	%REC	1	08/27/2019 16:21	156710
Surr: Nitrobenzene-d5	*	15-163		73.3	%REC	1	08/27/2019 16:21	156710
Surr: p-Terphenyl-d14	*	10-173		111.4	%REC	1	08/27/2019 16:21	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 19:50	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:50	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 19:50	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 19:50	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.7	%REC	1	08/23/2019 19:50	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		102.1	%REC	1	08/23/2019 19:50	156712
Surr: Dibromofluoromethane	*	84.9-113		96.4	%REC	1	08/23/2019 19:50	156712
Surr: Toluene-d8	*	86.7-112		103.1	%REC	1	08/23/2019 19:50	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-011

Client Sample ID: UMW-119-WG-20190819

Matrix: GROUNDWATER

Collection Date: 08/19/2019 18:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.035	mg/L	1	08/26/2019 14:18	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:18	156700
Barium	NELAP	0.0025		0.0927	mg/L	1	08/26/2019 19:18	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:18	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:18	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:18	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:18	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:18	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:28	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 20:28	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 20:28	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 20:28	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 20:28	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 20:28	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 20:28	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		78.6	%REC	1	08/26/2019 20:28	156710
Surr: Nitrobenzene-d5	*	15-163		76.9	%REC	1	08/26/2019 20:28	156710
Surr: p-Terphenyl-d14	*	10-173		114.1	%REC	1	08/26/2019 20:28	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 20:17	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 20:17	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 20:17	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 20:17	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.1	%REC	1	08/23/2019 20:17	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		101.8	%REC	1	08/23/2019 20:17	156712
Surr: Dibromofluoromethane	*	84.9-113		97.2	%REC	1	08/23/2019 20:17	156712
Surr: Toluene-d8	*	86.7-112		102.3	%REC	1	08/23/2019 20:17	156712

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-012

**Client Sample ID:** UMW-120-WG-20190819

**Matrix:** GROUNDWATER

**Collection Date:** 08/19/2019 17:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 14:27	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:21	156700
Barium	NELAP	0.0025		0.0337	mg/L	1	08/26/2019 19:21	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:21	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:21	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:21	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:21	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:21	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:30	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:06	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:06	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:06	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:06	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 21:06	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:06	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		70.8	%REC	1	08/26/2019 21:06	156710
Surr: Nitrobenzene-d5	*	15-163		75.1	%REC	1	08/26/2019 21:06	156710
Surr: p-Terphenyl-d14	*	10-173		117.2	%REC	1	08/26/2019 21:06	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 20:43	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 20:43	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 20:43	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 20:43	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.8	%REC	1	08/23/2019 20:43	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		101.2	%REC	1	08/23/2019 20:43	156712
Surr: Dibromofluoromethane	*	84.9-113		97.9	%REC	1	08/23/2019 20:43	156712
Surr: Toluene-d8	*	86.7-112		103.6	%REC	1	08/23/2019 20:43	156712

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-013

Client Sample ID: UMW-121-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 12:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.025		0.099	mg/L	5	08/26/2019 18:08	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:25	156700
Barium	NELAP	0.0025		0.120	mg/L	1	08/26/2019 19:25	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:25	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:25	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:25	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:25	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:25	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:32	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 17:38	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 17:38	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 17:38	156749
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 17:38	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 17:38	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 17:38	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		72.0	%REC	1	08/27/2019 17:38	156749
Surr: Nitrobenzene-d5	*	15-163		81.9	%REC	1	08/27/2019 17:38	156749
Surr: p-Terphenyl-d14	*	10-173		103.8	%REC	1	08/27/2019 17:38	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 21:10	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 21:10	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 21:10	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 21:10	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.4	%REC	1	08/23/2019 21:10	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		101.4	%REC	1	08/23/2019 21:10	156712
Surr: Dibromofluoromethane	*	84.9-113		96.8	%REC	1	08/23/2019 21:10	156712
Surr: Toluene-d8	*	86.7-112		103.6	%REC	1	08/23/2019 21:10	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-014

Client Sample ID: UMW-122-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 17:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.013	mg/L	1	08/26/2019 14:31	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:47	156700
Barium	NELAP	0.0025		0.0450	mg/L	1	08/26/2019 19:47	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:47	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:47	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:47	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:47	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:47	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:39	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:12	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:12	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:12	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:12	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 11:12	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:12	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		21.5	%REC	1	08/27/2019 11:12	156710
Surr: Nitrobenzene-d5	*	15-163		25.4	%REC	1	08/27/2019 11:12	156710
Surr: p-Terphenyl-d14	*	10-173		29.6	%REC	1	08/27/2019 11:12	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 21:37	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 21:37	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 21:37	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 21:37	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.3	%REC	1	08/23/2019 21:37	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		99.3	%REC	1	08/23/2019 21:37	156712
Surr: Dibromofluoromethane	*	84.9-113		95.8	%REC	1	08/23/2019 21:37	156712
Surr: Toluene-d8	*	86.7-112		103.5	%REC	1	08/23/2019 21:37	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-015

Client Sample ID: UMW-123-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 17:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 14:40	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:51	156700
Barium	NELAP	0.0025		0.0217	mg/L	1	08/26/2019 19:51	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:51	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:51	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:51	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:51	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:51	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 17:41	156677
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:50	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:50	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 11:50	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:50	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 11:50	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 11:50	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		72.4	%REC	1	08/27/2019 11:50	156710
Surr: Nitrobenzene-d5	*	15-163		73.0	%REC	1	08/27/2019 11:50	156710
Surr: p-Terphenyl-d14	*	10-173		98.0	%REC	1	08/27/2019 11:50	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/23/2019 22:04	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 22:04	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 22:04	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 22:04	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.1	%REC	1	08/23/2019 22:04	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		100.2	%REC	1	08/23/2019 22:04	156712
Surr: Dibromofluoromethane	*	84.9-113		95.8	%REC	1	08/23/2019 22:04	156712
Surr: Toluene-d8	*	86.7-112		102.8	%REC	1	08/23/2019 22:04	156712

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-016

Client Sample ID: UMW-124-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 14:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 14:44	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:54	156700
Barium	NELAP	0.0025		0.0495	mg/L	1	08/26/2019 19:54	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:54	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:54	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:54	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:54	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:54	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:14	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 19:31	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 19:31	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 19:31	156749
Naphthalene	NELAP	0.000200		0.00125	mg/L	1	08/27/2019 19:31	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 19:31	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 19:31	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		78.4	%REC	1	08/27/2019 19:31	156749
Surr: Nitrobenzene-d5	*	15-163		80.0	%REC	1	08/27/2019 19:31	156749
Surr: p-Terphenyl-d14	*	10-173		108.0	%REC	1	08/27/2019 19:31	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		104	µg/L	1	08/23/2019 22:31	156712
Ethylbenzene	NELAP	2.0		2.9	µg/L	1	08/23/2019 22:31	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 22:31	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 22:31	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.1	%REC	1	08/23/2019 22:31	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		98.9	%REC	1	08/23/2019 22:31	156712
Surr: Dibromofluoromethane	*	84.9-113		95.9	%REC	1	08/23/2019 22:31	156712
Surr: Toluene-d8	*	86.7-112		103.2	%REC	1	08/23/2019 22:31	156712

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-017

**Client Sample ID:** UMW-125-WG-20190821

**Matrix:** GROUNDWATER

**Collection Date:** 08/21/2019 8:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.031	mg/L	1	08/26/2019 15:10	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 19:58	156700
Barium	NELAP	0.0025		0.0219	mg/L	1	08/26/2019 19:58	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 19:58	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 19:58	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 19:58	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 19:58	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 19:58	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:20	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 12:28	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 12:28	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 12:28	156710
Naphthalene	NELAP	0.000200		0.000517	mg/L	1	08/27/2019 12:28	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 12:28	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 12:28	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		74.9	%REC	1	08/27/2019 12:28	156710
Surr: Nitrobenzene-d5	*	15-163		77.7	%REC	1	08/27/2019 12:28	156710
Surr: p-Terphenyl-d14	*	10-173		98.0	%REC	1	08/27/2019 12:28	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		6.5	µg/L	1	08/23/2019 22:57	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 22:57	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 22:57	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 22:57	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.1	%REC	1	08/23/2019 22:57	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		99.6	%REC	1	08/23/2019 22:57	156712
Surr: Dibromofluoromethane	*	84.9-113		95.8	%REC	1	08/23/2019 22:57	156712
Surr: Toluene-d8	*	86.7-112		102.6	%REC	1	08/23/2019 22:57	156712

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-018

**Client Sample ID:** UMW-126-WG-20190821

**Matrix:** GROUNDWATER

**Collection Date:** 08/21/2019 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 15:15	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:02	156700
Barium	NELAP	0.0025		0.0303	mg/L	1	08/26/2019 20:02	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:02	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:02	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:02	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:02	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:02	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:23	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000616	mg/L	1	08/27/2019 20:09	156749
Acenaphthylene	NELAP	0.000100		0.000382	mg/L	1	08/27/2019 20:09	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:09	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:09	156749
Fluorene	NELAP	0.000100		0.000218	mg/L	1	08/27/2019 20:09	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:09	156749
Naphthalene	NELAP	0.00500		0.0634	mg/L	25	08/28/2019 15:09	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 20:09	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:09	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		74.1	%REC	1	08/27/2019 20:09	156749
Surr: Nitrobenzene-d5	*	15-163		75.4	%REC	1	08/27/2019 20:09	156749
Surr: p-Terphenyl-d14	*	10-173		101.6	%REC	1	08/27/2019 20:09	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		109	µg/L	1	08/23/2019 23:24	156712
Ethylbenzene	NELAP	2.0		14.3	µg/L	1	08/23/2019 23:24	156712
Toluene	NELAP	2.0		80.4	µg/L	1	08/23/2019 23:24	156712
Xylenes, Total	NELAP	4.0		39.1	µg/L	1	08/23/2019 23:24	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.9	%REC	1	08/23/2019 23:24	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		99.2	%REC	1	08/23/2019 23:24	156712
Surr: Dibromofluoromethane	*	84.9-113		96.6	%REC	1	08/23/2019 23:24	156712
Surr: Toluene-d8	*	86.7-112		102.3	%REC	1	08/23/2019 23:24	156712

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-019

Client Sample ID: UMW-127-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 10:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 16:24	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:05	156700
Barium	NELAP	0.0025		0.168	mg/L	1	08/26/2019 20:05	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:05	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:05	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:05	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:05	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:05	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:25	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000199	mg/L	1	08/27/2019 20:46	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:46	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:46	156749
Fluorene	NELAP	0.000100		0.000159	mg/L	1	08/27/2019 20:46	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 20:46	156749
Naphthalene	NELAP	0.000200		0.00195	mg/L	1	08/27/2019 20:46	156749
Phenanthrene	NELAP	0.000400		0.000445	mg/L	1	08/27/2019 20:46	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 20:46	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		88.3	%REC	1	08/27/2019 20:46	156749
Surr: Nitrobenzene-d5	*	15-163		88.3	%REC	1	08/27/2019 20:46	156749
Surr: p-Terphenyl-d14	*	10-173		102.8	%REC	1	08/27/2019 20:46	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		2.4	µg/L	1	08/23/2019 23:50	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/23/2019 23:50	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/23/2019 23:50	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/23/2019 23:50	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.2	%REC	1	08/23/2019 23:50	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		98.7	%REC	1	08/23/2019 23:50	156712
Surr: Dibromofluoromethane	*	84.9-113		96.2	%REC	1	08/23/2019 23:50	156712
Surr: Toluene-d8	*	86.7-112		102.3	%REC	1	08/23/2019 23:50	156712

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-020

Client Sample ID: UMW-300-WG-20190819

Matrix: GROUNDWATER

Collection Date: 08/19/2019 18:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 16:28	156687
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:09	156700
Barium	NELAP	0.0025		0.0942	mg/L	1	08/26/2019 20:09	156700
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:09	156700
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:09	156700
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:09	156700
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:09	156700
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:09	156700
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:32	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:45	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:45	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/26/2019 21:45	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:45	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/26/2019 21:45	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/26/2019 21:45	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		71.1	%REC	1	08/26/2019 21:45	156710
Surr: Nitrobenzene-d5	*	15-163		77.9	%REC	1	08/26/2019 21:45	156710
Surr: p-Terphenyl-d14	*	10-173		108.1	%REC	1	08/26/2019 21:45	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/24/2019 0:17	156712
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/24/2019 0:17	156712
Toluene	NELAP	2.0		ND	µg/L	1	08/24/2019 0:17	156712
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/24/2019 0:17	156712
Surr: 1,2-Dichloroethane-d4	*	79.6-118		100.9	%REC	1	08/24/2019 0:17	156712
Surr: 4-Bromofluorobenzene	*	83.9-115		98.9	%REC	1	08/24/2019 0:17	156712
Surr: Dibromofluoromethane	*	84.9-113		94.7	%REC	1	08/24/2019 0:17	156712
Surr: Toluene-d8	*	86.7-112		102.5	%REC	1	08/24/2019 0:17	156712

## Laboratory Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-021

**Client Sample ID:** UMW-301R-WG-20190821

**Matrix:** GROUNDWATER

**Collection Date:** 08/21/2019 11:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005	R	< 0.005	mg/L	1	08/26/2019 12:30	156689
RPD for MS/MSD was outside control limits.								
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:35	156701
Barium	NELAP	0.0025		0.0762	mg/L	1	08/26/2019 20:35	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:35	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:35	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:35	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:35	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:35	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:38	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.00317	mg/L	1	08/28/2019 0:35	156749
Acenaphthylene	NELAP	0.000100		0.00403	mg/L	1	08/28/2019 0:35	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 0:35	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 0:35	156749
Fluorene	NELAP	0.000100		0.000245	mg/L	1	08/28/2019 0:35	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 0:35	156749
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/28/2019 0:35	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 0:35	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 0:35	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		77.7	%REC	1	08/28/2019 0:35	156749
Surr: Nitrobenzene-d5	*	15-163		79.0	%REC	1	08/28/2019 0:35	156749
Surr: p-Terphenyl-d14	*	10-173		105.1	%REC	1	08/28/2019 0:35	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 13:29	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 13:29	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 13:29	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 13:29	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		105.1	%REC	1	08/26/2019 13:29	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		101.8	%REC	1	08/26/2019 13:29	156726
Surr: Dibromofluoromethane	*	84.9-113		98.5	%REC	1	08/26/2019 13:29	156726
Surr: Toluene-d8	*	86.7-112		102.8	%REC	1	08/26/2019 13:29	156726

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-022

Client Sample ID: UMW-302-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 13:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.025		0.152	mg/L	5	08/28/2019 10:17	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:45	156701
Barium	NELAP	0.0025		0.0608	mg/L	1	08/26/2019 20:45	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:45	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:45	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:45	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:45	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:45	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:41	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000467	mg/L	1	08/28/2019 1:13	156749
Acenaphthylene	NELAP	0.000100		0.000498	mg/L	1	08/28/2019 1:13	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:13	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:13	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:13	156749
Naphthalene	NELAP	0.400		1.68	mg/L	2000	08/28/2019 18:18	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 1:13	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:13	156749
Surr: 2-Fluorobiphenyl	*	21.4-142	S	0	%REC	2000	08/28/2019 18:18	156749
Surr: Nitrobenzene-d5	*	15-163	S	0	%REC	2000	08/28/2019 18:18	156749
Surr: p-Terphenyl-d14	*	10-173		102.1	%REC	1	08/28/2019 1:13	156749
Surrogate recovery is outside control limits due to sample dilution.								
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	10.0		188	µg/L	20	08/26/2019 13:56	156726
Ethylbenzene	NELAP	40.0		697	µg/L	20	08/26/2019 13:56	156726
Toluene	NELAP	40.0		ND	µg/L	20	08/26/2019 13:56	156726
Xylenes, Total	NELAP	80.0		179	µg/L	20	08/26/2019 13:56	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		105.5	%REC	20	08/26/2019 13:56	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		100.4	%REC	20	08/26/2019 13:56	156726
Surr: Dibromofluoromethane	*	84.9-113		97.0	%REC	20	08/26/2019 13:56	156726
Surr: Toluene-d8	*	86.7-112		102.8	%REC	20	08/26/2019 13:56	156726

Elevated reporting limit due to high levels of target and/or non-target analytes.

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-023

Client Sample ID: UMW-303-WG-20190820

Matrix: GROUNDWATER

Collection Date: 08/20/2019 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 17:12	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:49	156701
Barium	NELAP	0.0025		0.0408	mg/L	1	08/26/2019 20:49	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:49	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:49	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:49	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:49	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:49	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:43	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:07	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:07	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:07	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:07	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 13:07	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:07	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		72.1	%REC	1	08/27/2019 13:07	156710
Surr: Nitrobenzene-d5	*	15-163		74.3	%REC	1	08/27/2019 13:07	156710
Surr: p-Terphenyl-d14	*	10-173		121.7	%REC	1	08/27/2019 13:07	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 14:22	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 14:22	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 14:22	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 14:22	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		104.2	%REC	1	08/26/2019 14:22	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		100.7	%REC	1	08/26/2019 14:22	156726
Surr: Dibromofluoromethane	*	84.9-113		97.5	%REC	1	08/26/2019 14:22	156726
Surr: Toluene-d8	*	86.7-112		102.2	%REC	1	08/26/2019 14:22	156726

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-024

Client Sample ID: UMW-304R-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 9:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 17:20	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:53	156701
Barium	NELAP	0.0025		0.0811	mg/L	1	08/26/2019 20:53	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:53	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:53	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:53	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:53	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:53	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:45	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000313	mg/L	1	08/27/2019 13:45	156710
Acenaphthylene	NELAP	0.000100		0.000697	mg/L	1	08/27/2019 13:45	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:45	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:45	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 13:45	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:45	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 13:45	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 13:45	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		73.6	%REC	1	08/27/2019 13:45	156710
Surr: Nitrobenzene-d5	*	15-163		70.0	%REC	1	08/27/2019 13:45	156710
Surr: p-Terphenyl-d14	*	10-173		110.8	%REC	1	08/27/2019 13:45	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 14:49	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 14:49	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 14:49	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 14:49	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		105.4	%REC	1	08/26/2019 14:49	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		101.6	%REC	1	08/26/2019 14:49	156726
Surr: Dibromofluoromethane	*	84.9-113		97.4	%REC	1	08/26/2019 14:49	156726
Surr: Toluene-d8	*	86.7-112		103.1	%REC	1	08/26/2019 14:49	156726

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-025

Client Sample ID: UMW-305-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 9:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.008	mg/L	1	08/26/2019 17:25	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 20:56	156701
Barium	NELAP	0.0025		0.0970	mg/L	1	08/26/2019 20:56	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 20:56	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 20:56	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 20:56	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 20:56	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 20:56	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:47	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:51	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:51	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 1:51	156749
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/28/2019 15:47	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 1:51	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 1:51	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		65.6	%REC	1	08/28/2019 1:51	156749
Surr: Nitrobenzene-d5	*	15-163		74.0	%REC	1	08/28/2019 1:51	156749
Surr: p-Terphenyl-d14	*	10-173		116.0	%REC	1	08/28/2019 1:51	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 15:16	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 15:16	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 15:16	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 15:16	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		104.1	%REC	1	08/26/2019 15:16	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		101.4	%REC	1	08/26/2019 15:16	156726
Surr: Dibromofluoromethane	*	84.9-113		99.4	%REC	1	08/26/2019 15:16	156726
Surr: Toluene-d8	*	86.7-112		103.0	%REC	1	08/26/2019 15:16	156726

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-026

Client Sample ID: UMW-306-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 8:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.020	mg/L	1	08/26/2019 17:33	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:00	156701
Barium	NELAP	0.0025		0.120	mg/L	1	08/26/2019 21:00	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:00	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:00	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:00	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:00	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:00	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:50	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 2:29	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 2:29	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 2:29	156749
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/28/2019 2:29	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 2:29	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 2:29	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		52.6	%REC	1	08/28/2019 2:29	156749
Surr: Nitrobenzene-d5	*	15-163		55.4	%REC	1	08/28/2019 2:29	156749
Surr: p-Terphenyl-d14	*	10-173		97.3	%REC	1	08/28/2019 2:29	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 15:44	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 15:44	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 15:44	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 15:44	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		104.2	%REC	1	08/26/2019 15:44	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		100.0	%REC	1	08/26/2019 15:44	156726
Surr: Dibromofluoromethane	*	84.9-113		97.3	%REC	1	08/26/2019 15:44	156726
Surr: Toluene-d8	*	86.7-112		102.7	%REC	1	08/26/2019 15:44	156726

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-027

**Client Sample ID:** UMW-307-WG-20190820

**Matrix:** GROUNDWATER

**Collection Date:** 08/20/2019 18:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.032	mg/L	1	08/26/2019 17:38	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:22	156701
Barium	NELAP	0.0025		0.109	mg/L	1	08/26/2019 21:22	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:22	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:22	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:22	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:22	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:22	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:52	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 14:24	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 14:24	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 14:24	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 14:24	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 14:24	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 14:24	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		68.5	%REC	1	08/27/2019 14:24	156710
Surr: Nitrobenzene-d5	*	15-163		74.7	%REC	1	08/27/2019 14:24	156710
Surr: p-Terphenyl-d14	*	10-173		104.8	%REC	1	08/27/2019 14:24	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 16:11	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 16:11	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 16:11	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 16:11	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		104.8	%REC	1	08/26/2019 16:11	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		98.4	%REC	1	08/26/2019 16:11	156726
Surr: Dibromofluoromethane	*	84.9-113		97.7	%REC	1	08/26/2019 16:11	156726
Surr: Toluene-d8	*	86.7-112		102.5	%REC	1	08/26/2019 16:11	156726

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-028

Client Sample ID: UMW-308-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 13:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.015	mg/L	1	08/26/2019 16:54	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:04	156701
Barium	NELAP	0.0025		0.116	mg/L	1	08/26/2019 21:04	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:04	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:04	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:04	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:04	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:04	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:54	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:07	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:07	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:07	156749
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:07	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 3:07	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:07	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		66.7	%REC	1	08/28/2019 3:07	156749
Surr: Nitrobenzene-d5	*	15-163		74.5	%REC	1	08/28/2019 3:07	156749
Surr: p-Terphenyl-d14	*	10-173		96.9	%REC	1	08/28/2019 3:07	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 16:38	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 16:38	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 16:38	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 16:38	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		103.8	%REC	1	08/26/2019 16:38	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		99.7	%REC	1	08/26/2019 16:38	156726
Surr: Dibromofluoromethane	*	84.9-113		98.1	%REC	1	08/26/2019 16:38	156726
Surr: Toluene-d8	*	86.7-112		102.9	%REC	1	08/26/2019 16:38	156726

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-029

**Client Sample ID:** DUP 001-WG-20190820

**Matrix:** GROUNDWATER

**Collection Date:** 08/20/2019 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.050		0.409	mg/L	10	08/28/2019 10:22	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:07	156701
Barium	NELAP	0.0025		0.139	mg/L	1	08/26/2019 21:07	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:07	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:07	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:07	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:07	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:07	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:56	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/27/2019 15:03	156710
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Chrysene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/27/2019 15:03	156710
Fluorene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/27/2019 15:03	156710
Naphthalene	NELAP	0.000200		ND	mg/L	1	08/27/2019 15:03	156710
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/27/2019 15:03	156710
Pyrene	NELAP	0.000200		ND	mg/L	1	08/27/2019 15:03	156710
Surr: 2-Fluorobiphenyl	*	21.4-142		72.7	%REC	1	08/27/2019 15:03	156710
Surr: Nitrobenzene-d5	*	15-163		77.4	%REC	1	08/27/2019 15:03	156710
Surr: p-Terphenyl-d14	*	10-173		105.4	%REC	1	08/27/2019 15:03	156710
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		0.6	µg/L	1	08/26/2019 17:05	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 17:05	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 17:05	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 17:05	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		102.9	%REC	1	08/26/2019 17:05	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		99.4	%REC	1	08/26/2019 17:05	156726
Surr: Dibromofluoromethane	*	84.9-113		96.5	%REC	1	08/26/2019 17:05	156726
Surr: Toluene-d8	*	86.7-112		102.6	%REC	1	08/26/2019 17:05	156726

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-030

Client Sample ID: DUP 002-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		0.012	mg/L	1	08/26/2019 15:58	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:33	156701
Barium	NELAP	0.0025		0.0310	mg/L	1	08/26/2019 21:33	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:33	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:33	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:33	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:33	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:33	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 19:59	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000471	mg/L	1	08/28/2019 3:45	156749
Acenaphthylene	NELAP	0.000100		0.000311	mg/L	1	08/28/2019 3:45	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:45	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:45	156749
Fluorene	NELAP	0.000100		0.000167	mg/L	1	08/28/2019 3:45	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 3:45	156749
Naphthalene	NELAP	0.00500		0.0436	mg/L	25	08/28/2019 17:02	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 3:45	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 3:45	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		61.0	%REC	1	08/28/2019 3:45	156749
Surr: Nitrobenzene-d5	*	15-163		62.6	%REC	1	08/28/2019 3:45	156749
Surr: p-Terphenyl-d14	*	10-173		83.0	%REC	1	08/28/2019 3:45	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		116	µg/L	1	08/27/2019 12:40	156759
Ethylbenzene	NELAP	2.0		13.8	µg/L	1	08/27/2019 12:40	156759
Toluene	NELAP	2.0		76.7	µg/L	1	08/27/2019 12:40	156759
Xylenes, Total	NELAP	4.0		38.6	µg/L	1	08/27/2019 12:40	156759
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.8	%REC	1	08/27/2019 12:40	156759
Surr: 4-Bromofluorobenzene	*	83.9-115		101.4	%REC	1	08/27/2019 12:40	156759
Surr: Dibromofluoromethane	*	84.9-113		101.9	%REC	1	08/27/2019 12:40	156759
Surr: Toluene-d8	*	86.7-112		99.8	%REC	1	08/27/2019 12:40	156759

## Laboratory Results

<http://www.teklabinc.com/>

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-031

Client Sample ID: DUP 003-WG-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.025		0.146	mg/L	5	08/26/2019 18:04	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:37	156701
Barium	NELAP	0.0025		0.0603	mg/L	1	08/26/2019 21:37	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:37	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:37	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:37	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:37	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:37	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 20:05	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		0.000358	mg/L	1	08/28/2019 4:23	156749
Acenaphthylene	NELAP	0.000100		0.000370	mg/L	1	08/28/2019 4:23	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 4:23	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 4:23	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 4:23	156749
Naphthalene	NELAP	0.200		1.14	mg/L	1000	08/28/2019 17:40	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 4:23	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 4:23	156749
Surr: 2-Fluorobiphenyl	*	21.4-142	S	0	%REC	1000	08/28/2019 17:40	156749
Surr: Nitrobenzene-d5	*	15-163	S	0	%REC	1000	08/28/2019 17:40	156749
Surr: p-Terphenyl-d14	*	10-173		100.7	%REC	1	08/28/2019 4:23	156749
Surrogate recovery is outside control limits due to sample dilution.								
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	10.0		215	µg/L	20	08/27/2019 13:06	156759
Ethylbenzene	NELAP	40.0		741	µg/L	20	08/27/2019 13:06	156759
Toluene	NELAP	2.0		7.5	µg/L	1	08/26/2019 17:59	156726
Xylenes, Total	NELAP	4.0		228	µg/L	1	08/26/2019 17:59	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		106.8	%REC	1	08/26/2019 17:59	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		99.0	%REC	1	08/26/2019 17:59	156726
Surr: Dibromofluoromethane	*	84.9-113		97.5	%REC	1	08/26/2019 17:59	156726
Surr: Toluene-d8	*	86.7-112		102.2	%REC	1	08/26/2019 17:59	156726

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

Lab ID: 19081552-032

Client Sample ID: EB-01-WQ-20190821

Matrix: GROUNDWATER

Collection Date: 08/21/2019 8:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 9012A (TOTAL)</b>								
Cyanide	NELAP	0.005		< 0.005	mg/L	1	08/26/2019 12:47	156689
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>								
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	08/26/2019 21:40	156701
Barium	NELAP	0.0025		0.0056	mg/L	1	08/26/2019 21:40	156701
Cadmium	NELAP	0.0020		< 0.0020	mg/L	1	08/26/2019 21:40	156701
Chromium	NELAP	0.0050		< 0.0050	mg/L	1	08/26/2019 21:40	156701
Lead	NELAP	0.0075		< 0.0075	mg/L	1	08/26/2019 21:40	156701
Selenium	NELAP	0.0400		< 0.0400	mg/L	1	08/26/2019 21:40	156701
Silver	NELAP	0.0070		< 0.0070	mg/L	1	08/26/2019 21:40	156701
<b>SW-846 7470A (TOTAL)</b>								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	08/25/2019 20:08	156678
<b>SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS</b>								
Acenaphthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Acenaphthylene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Benzo(a)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Benzo(a)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Benzo(b)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Benzo(g,h,i)perylene	NELAP	0.000200		ND	mg/L	1	08/28/2019 5:00	156749
Benzo(k)fluoranthene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Chrysene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Dibenzo(a,h)anthracene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Fluoranthene	NELAP	0.000200		ND	mg/L	1	08/28/2019 5:00	156749
Fluorene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Indeno(1,2,3-cd)pyrene	NELAP	0.000100		ND	mg/L	1	08/28/2019 5:00	156749
Naphthalene	NELAP	0.000200		0.000401	mg/L	1	08/28/2019 16:25	156749
Phenanthrene	NELAP	0.000400		ND	mg/L	1	08/28/2019 5:00	156749
Pyrene	NELAP	0.000200		ND	mg/L	1	08/28/2019 5:00	156749
Surr: 2-Fluorobiphenyl	*	21.4-142		58.4	%REC	1	08/28/2019 5:00	156749
Surr: Nitrobenzene-d5	*	15-163		57.3	%REC	1	08/28/2019 5:00	156749
Surr: p-Terphenyl-d14	*	10-173		85.0	%REC	1	08/28/2019 5:00	156749
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 18:26	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 18:26	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 18:26	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 18:26	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.9	%REC	1	08/26/2019 18:26	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		99.8	%REC	1	08/26/2019 18:26	156726
Surr: Dibromofluoromethane	*	84.9-113		96.6	%REC	1	08/26/2019 18:26	156726
Surr: Toluene-d8	*	86.7-112		102.7	%REC	1	08/26/2019 18:26	156726

## Laboratory Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Lab ID:** 19081552-033

**Client Sample ID:** TB-01-WQ-201908

**Matrix:** TRIP BLANK

**Collection Date:** 08/22/2019 16:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5		ND	µg/L	1	08/26/2019 19:19	156726
Ethylbenzene	NELAP	2.0		ND	µg/L	1	08/26/2019 19:19	156726
Toluene	NELAP	2.0		ND	µg/L	1	08/26/2019 19:19	156726
Xylenes, Total	NELAP	4.0		ND	µg/L	1	08/26/2019 19:19	156726
Surr: 1,2-Dichloroethane-d4	*	79.6-118		101.7	%REC	1	08/26/2019 19:19	156726
Surr: 4-Bromofluorobenzene	*	83.9-115		100.0	%REC	1	08/26/2019 19:19	156726
Surr: Dibromofluoromethane	*	84.9-113		97.5	%REC	1	08/26/2019 19:19	156726
Surr: Toluene-d8	*	86.7-112		102.6	%REC	1	08/26/2019 19:19	156726

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
19081552-001	UMW-102-WG-20190819	Groundwater	4	08/19/2019 16:40
19081552-002	UMW-105-WG-20190821	Groundwater	4	08/21/2019 11:20
19081552-003	UMW-106R-WG-20190820	Groundwater	4	08/20/2019 19:00
19081552-004	UMW-107R-WG-20190820	Groundwater	4	08/20/2019 15:50
19081552-005	UMW-108-WG-20190820	Groundwater	4	08/20/2019 10:40
19081552-006	UMW-109-WG-20190820	Groundwater	4	08/20/2019 9:55
19081552-007	UMW-111A-WG-20190820	Groundwater	4	08/20/2019 9:15
19081552-008	UMW-116-WG-20190820	Groundwater	4	08/20/2019 16:15
19081552-009	UMW-117-WG-20190820	Groundwater	4	08/20/2019 14:45
19081552-010	UMW-118-WG-20190820	Groundwater	4	08/20/2019 11:20
19081552-011	UMW-119-WG-20190819	Groundwater	4	08/19/2019 18:20
19081552-012	UMW-120-WG-20190819	Groundwater	4	08/19/2019 17:00
19081552-013	UMW-121-WG-20190821	Groundwater	4	08/21/2019 12:20
19081552-014	UMW-122-WG-20190820	Groundwater	4	08/20/2019 17:45
19081552-015	UMW-123-WG-20190820	Groundwater	4	08/20/2019 17:15
19081552-016	UMW-124-WG-20190821	Groundwater	4	08/21/2019 14:40
19081552-017	UMW-125-WG-20190821	Groundwater	4	08/21/2019 8:10
19081552-018	UMW-126-WG-20190821	Groundwater	4	08/21/2019 14:15
19081552-019	UMW-127-WG-20190821	Groundwater	4	08/21/2019 10:45
19081552-020	UMW-300-WG-20190819	Groundwater	4	08/19/2019 18:30
19081552-021	UMW-301R-WG-20190821	Groundwater	4	08/21/2019 11:50
19081552-022	UMW-302-WG-20190821	Groundwater	4	08/21/2019 13:00
19081552-023	UMW-303-WG-20190820	Groundwater	4	08/20/2019 14:30
19081552-024	UMW-304R-WG-20190821	Groundwater	4	08/21/2019 9:15
19081552-025	UMW-305-WG-20190821	Groundwater	4	08/21/2019 9:30
19081552-026	UMW-306-WG-20190821	Groundwater	4	08/21/2019 8:20
19081552-027	UMW-307-WG-20190820	Groundwater	4	08/20/2019 18:20
19081552-028	UMW-308-WG-20190821	Groundwater	4	08/21/2019 13:10
19081552-029	DUP 001-WG-20190820	Groundwater	4	08/20/2019 0:00
19081552-030	DUP 002-WG-20190821	Groundwater	4	08/21/2019 0:00
19081552-031	DUP 003-WG-20190821	Groundwater	4	08/21/2019 0:00
19081552-032	EB-01-WQ-20190821	Groundwater	4	08/21/2019 8:55
19081552-033	TB-01-WQ-201908	Trip Blank	1	08/22/2019 16:00

## Dates Report

<http://www.teklabinc.com/>
**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date		Prep Date/Time	Analysis Date/Time
			Test Name			
19081552-001A	UMW-102-WG-20190819	08/19/2019 16:40	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 16:33	
19081552-001B	UMW-102-WG-20190819	08/19/2019 16:40	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 18:23	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 16:56	
19081552-001C	UMW-102-WG-20190819	08/19/2019 16:40	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 13:05	
19081552-001D	UMW-102-WG-20190819	08/19/2019 16:40	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 18:06	
19081552-002A	UMW-105-WG-20190821	08/21/2019 11:20	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 13:26	08/26/2019 23:01	
19081552-002B	UMW-105-WG-20190821	08/21/2019 11:20	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 18:26	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 16:59	
19081552-002C	UMW-105-WG-20190821	08/21/2019 11:20	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 11:25	
19081552-002D	UMW-105-WG-20190821	08/21/2019 11:20	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 18:32	
19081552-003A	UMW-106R-WG-20190820	08/20/2019 19:00	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 17:16	
19081552-003B	UMW-106R-WG-20190820	08/20/2019 19:00	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 18:37	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:05	
19081552-003C	UMW-106R-WG-20190820	08/20/2019 19:00	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 13:13	
19081552-003D	UMW-106R-WG-20190820	08/20/2019 19:00	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 19:00	
19081552-004A	UMW-107R-WG-20190820	08/20/2019 15:50	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 17:55	
19081552-004B	UMW-107R-WG-20190820	08/20/2019 15:50	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 18:41	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:08	
19081552-004C	UMW-107R-WG-20190820	08/20/2019 15:50	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 16:11	
19081552-004D	UMW-107R-WG-20190820	08/20/2019 15:50	08/22/2019 16:00			

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
		Test Name			
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS			08/23/2019 17:09
19081552-005A	UMW-108-WG-20190820	08/20/2019 10:40	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/26/2019 9:44	08/26/2019 18:34
19081552-005B	UMW-108-WG-20190820	08/20/2019 10:40	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:50	08/26/2019 18:45
		SW-846 7470A (Total)		08/23/2019 11:48	08/25/2019 17:10
19081552-005C	UMW-108-WG-20190820	08/20/2019 10:40	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 13:22
19081552-005D	UMW-108-WG-20190820	08/20/2019 10:40	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS			08/23/2019 17:36
19081552-006A	UMW-109-WG-20190820	08/20/2019 9:55	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/26/2019 9:44	08/26/2019 19:12
19081552-006B	UMW-109-WG-20190820	08/20/2019 9:55	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:50	08/26/2019 18:59
		SW-846 7470A (Total)		08/23/2019 11:48	08/25/2019 17:12
19081552-006C	UMW-109-WG-20190820	08/20/2019 9:55	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 13:48
19081552-006D	UMW-109-WG-20190820	08/20/2019 9:55	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS			08/23/2019 18:03
19081552-007A	UMW-111A-WG-20190820	08/20/2019 9:15	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/26/2019 9:44	08/26/2019 19:50
19081552-007B	UMW-111A-WG-20190820	08/20/2019 9:15	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:50	08/26/2019 19:03
		SW-846 7470A (Total)		08/23/2019 11:48	08/25/2019 17:14
19081552-007C	UMW-111A-WG-20190820	08/20/2019 9:15	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 13:52
19081552-007D	UMW-111A-WG-20190820	08/20/2019 9:15	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS			08/23/2019 18:30
19081552-008A	UMW-116-WG-20190820	08/20/2019 16:15	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/26/2019 13:26	08/26/2019 22:23
19081552-008B	UMW-116-WG-20190820	08/20/2019 16:15	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:50	08/26/2019 19:07
		SW-846 7470A (Total)		08/23/2019 11:48	08/25/2019 17:16
19081552-008C	UMW-116-WG-20190820	08/20/2019 16:15	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 14:01

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date		Prep Date/Time	Analysis Date/Time
			Test Name			
19081552-008D	UMW-116-WG-20190820	08/20/2019 16:15	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 18:56	
19081552-009A	UMW-117-WG-20190820	08/20/2019 14:45	08/22/2019 16:00			
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds			08/27/2019 9:10	08/27/2019 16:59	
19081552-009B	UMW-117-WG-20190820	08/20/2019 14:45	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:10	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:23	
19081552-009C	UMW-117-WG-20190820	08/20/2019 14:45	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:06	
19081552-009D	UMW-117-WG-20190820	08/20/2019 14:45	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 19:23	
19081552-010A	UMW-118-WG-20190820	08/20/2019 11:20	08/22/2019 16:00			
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds			08/26/2019 13:26	08/27/2019 16:21	
19081552-010B	UMW-118-WG-20190820	08/20/2019 11:20	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:14	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:25	
19081552-010C	UMW-118-WG-20190820	08/20/2019 11:20	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:14	
19081552-010D	UMW-118-WG-20190820	08/20/2019 11:20	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 19:50	
19081552-011A	UMW-119-WG-20190819	08/19/2019 18:20	08/22/2019 16:00			
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 20:28	
19081552-011B	UMW-119-WG-20190819	08/19/2019 18:20	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:18	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:28	
19081552-011C	UMW-119-WG-20190819	08/19/2019 18:20	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:18	
19081552-011D	UMW-119-WG-20190819	08/19/2019 18:20	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 20:17	
19081552-012A	UMW-120-WG-20190819	08/19/2019 17:00	08/22/2019 16:00			
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 21:06	
19081552-012B	UMW-120-WG-20190819	08/19/2019 17:00	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:21	
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:30	
19081552-012C	UMW-120-WG-20190819	08/19/2019 17:00	08/22/2019 16:00			

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
		Test Name			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:27
19081552-012D	UMW-120-WG-20190819	08/19/2019 17:00	08/22/2019 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 20:43
19081552-013A	UMW-121-WG-20190821	08/21/2019 12:20	08/22/2019 16:00		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/27/2019 9:12	08/27/2019 17:38
19081552-013B	UMW-121-WG-20190821	08/21/2019 12:20	08/22/2019 16:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:25
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:32
19081552-013C	UMW-121-WG-20190821	08/21/2019 12:20	08/22/2019 16:00		
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 18:08
19081552-013D	UMW-121-WG-20190821	08/21/2019 12:20	08/22/2019 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 21:10
19081552-014A	UMW-122-WG-20190820	08/20/2019 17:45	08/22/2019 16:00		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 13:26	08/27/2019 11:12
19081552-014B	UMW-122-WG-20190820	08/20/2019 17:45	08/22/2019 16:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:47
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:39
19081552-014C	UMW-122-WG-20190820	08/20/2019 17:45	08/22/2019 16:00		
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:31
19081552-014D	UMW-122-WG-20190820	08/20/2019 17:45	08/22/2019 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 21:37
19081552-015A	UMW-123-WG-20190820	08/20/2019 17:15	08/22/2019 16:00		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 13:26	08/27/2019 11:50
19081552-015B	UMW-123-WG-20190820	08/20/2019 17:15	08/22/2019 16:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:51
	SW-846 7470A (Total)			08/23/2019 11:48	08/25/2019 17:41
19081552-015C	UMW-123-WG-20190820	08/20/2019 17:15	08/22/2019 16:00		
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:40
19081552-015D	UMW-123-WG-20190820	08/20/2019 17:15	08/22/2019 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 22:04
19081552-016A	UMW-124-WG-20190821	08/21/2019 14:40	08/22/2019 16:00		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/27/2019 9:12	08/27/2019 19:31
19081552-016B	UMW-124-WG-20190821	08/21/2019 14:40	08/22/2019 16:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:54
	SW-846 7470A (Total)			08/23/2019 11:51	08/25/2019 19:14

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date		Prep Date/Time	Analysis Date/Time
			Test Name			
19081552-016C	UMW-124-WG-20190821	08/21/2019 14:40	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 14:44	
19081552-016D	UMW-124-WG-20190821	08/21/2019 14:40	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 22:31	
19081552-017A	UMW-125-WG-20190821	08/21/2019 8:10	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 13:26	08/27/2019 12:28	
19081552-017B	UMW-125-WG-20190821	08/21/2019 8:10	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 19:58	
	SW-846 7470A (Total)			08/23/2019 11:51	08/25/2019 19:20	
19081552-017C	UMW-125-WG-20190821	08/21/2019 8:10	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 15:10	
19081552-017D	UMW-125-WG-20190821	08/21/2019 8:10	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 22:57	
19081552-018A	UMW-126-WG-20190821	08/21/2019 14:15	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/27/2019 9:12	08/27/2019 20:09	
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/27/2019 9:12	08/28/2019 15:09	
19081552-018B	UMW-126-WG-20190821	08/21/2019 14:15	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 20:02	
	SW-846 7470A (Total)			08/23/2019 11:51	08/25/2019 19:23	
19081552-018C	UMW-126-WG-20190821	08/21/2019 14:15	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 15:15	
19081552-018D	UMW-126-WG-20190821	08/21/2019 14:15	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 23:24	
19081552-019A	UMW-127-WG-20190821	08/21/2019 10:45	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/27/2019 9:12	08/27/2019 20:46	
19081552-019B	UMW-127-WG-20190821	08/21/2019 10:45	08/22/2019 16:00			
	SW-846 3005A, 6010B, Metals by ICP (Total)			08/26/2019 8:50	08/26/2019 20:05	
	SW-846 7470A (Total)			08/23/2019 11:51	08/25/2019 19:25	
19081552-019C	UMW-127-WG-20190821	08/21/2019 10:45	08/22/2019 16:00			
	SW-846 9012A (Total)			08/23/2019 17:06	08/26/2019 16:24	
19081552-019D	UMW-127-WG-20190821	08/21/2019 10:45	08/22/2019 16:00			
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				08/23/2019 23:50	
19081552-020A	UMW-300-WG-20190819	08/19/2019 18:30	08/22/2019 16:00			
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			08/26/2019 9:44	08/26/2019 21:45	
19081552-020B	UMW-300-WG-20190819	08/19/2019 18:30	08/22/2019 16:00			

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date	
			Prep Date/Time	Analysis Date/Time
		Test Name		
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:50	08/26/2019 20:09
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:32
19081552-020C	UMW-300-WG-20190819	08/19/2019 18:30	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 16:28
19081552-020D	UMW-300-WG-20190819	08/19/2019 18:30	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/24/2019 0:17
19081552-021A	UMW-301R-WG-20190821	08/21/2019 11:50	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 9:12	08/28/2019 0:35
19081552-021B	UMW-301R-WG-20190821	08/21/2019 11:50	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 20:35
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:38
19081552-021C	UMW-301R-WG-20190821	08/21/2019 11:50	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 12:30
19081552-021D	UMW-301R-WG-20190821	08/21/2019 11:50	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 13:29
19081552-022A	UMW-302-WG-20190821	08/21/2019 13:00	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 9:12	08/28/2019 1:13
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 9:12	08/28/2019 18:18
19081552-022B	UMW-302-WG-20190821	08/21/2019 13:00	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 20:45
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:41
19081552-022C	UMW-302-WG-20190821	08/21/2019 13:00	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/28/2019 10:17
19081552-022D	UMW-302-WG-20190821	08/21/2019 13:00	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 13:56
19081552-023A	UMW-303-WG-20190820	08/20/2019 14:30	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/26/2019 13:26	08/27/2019 13:07
19081552-023B	UMW-303-WG-20190820	08/20/2019 14:30	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 20:49
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:43
19081552-023C	UMW-303-WG-20190820	08/20/2019 14:30	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 17:12
19081552-023D	UMW-303-WG-20190820	08/20/2019 14:30	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 14:22
19081552-024A	UMW-304R-WG-20190821	08/21/2019 9:15	08/22/2019 16:00	

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date	
			Prep Date/Time	Analysis Date/Time
		Test Name		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/26/2019 13:26	08/27/2019 13:45
19081552-024B	UMW-304R-WG-20190821	08/21/2019 9:15	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 20:53
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:45
19081552-024C	UMW-304R-WG-20190821	08/21/2019 9:15	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 17:20
19081552-024D	UMW-304R-WG-20190821	08/21/2019 9:15	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 14:49
19081552-025A	UMW-305-WG-20190821	08/21/2019 9:30	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 12:15	08/28/2019 1:51
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 12:15	08/28/2019 15:47
19081552-025B	UMW-305-WG-20190821	08/21/2019 9:30	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 20:56
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:47
19081552-025C	UMW-305-WG-20190821	08/21/2019 9:30	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 17:25
19081552-025D	UMW-305-WG-20190821	08/21/2019 9:30	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 15:16
19081552-026A	UMW-306-WG-20190821	08/21/2019 8:20	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/27/2019 12:15	08/28/2019 2:29
19081552-026B	UMW-306-WG-20190821	08/21/2019 8:20	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 21:00
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:50
19081552-026C	UMW-306-WG-20190821	08/21/2019 8:20	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 17:33
19081552-026D	UMW-306-WG-20190821	08/21/2019 8:20	08/22/2019 16:00	
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 15:44
19081552-027A	UMW-307-WG-20190820	08/20/2019 18:20	08/22/2019 16:00	
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/26/2019 13:26	08/27/2019 14:24
19081552-027B	UMW-307-WG-20190820	08/20/2019 18:20	08/22/2019 16:00	
		SW-846 3005A, 6010B, Metals by ICP (Total)	08/26/2019 8:54	08/26/2019 21:22
		SW-846 7470A (Total)	08/23/2019 11:51	08/25/2019 19:52
19081552-027C	UMW-307-WG-20190820	08/20/2019 18:20	08/22/2019 16:00	
		SW-846 9012A (Total)	08/23/2019 17:06	08/26/2019 17:38
19081552-027D	UMW-307-WG-20190820	08/20/2019 18:20	08/22/2019 16:00	

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date		
		Test Name		Prep Date/Time	Analysis Date/Time
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 16:11	
19081552-028A	UMW-308-WG-20190821	08/21/2019 13:10	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 3:07
19081552-028B	UMW-308-WG-20190821	08/21/2019 13:10	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:54	08/26/2019 21:04
		SW-846 7470A (Total)		08/23/2019 11:51	08/25/2019 19:54
19081552-028C	UMW-308-WG-20190821	08/21/2019 13:10	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 16:54
19081552-028D	UMW-308-WG-20190821	08/21/2019 13:10	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 16:38	
19081552-029A	DUP 001-WG-20190820	08/20/2019 0:00	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/26/2019 13:26	08/27/2019 15:03
19081552-029B	DUP 001-WG-20190820	08/20/2019 0:00	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:54	08/26/2019 21:07
		SW-846 7470A (Total)		08/23/2019 11:51	08/25/2019 19:56
19081552-029C	DUP 001-WG-20190820	08/20/2019 0:00	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/28/2019 10:22
19081552-029D	DUP 001-WG-20190820	08/20/2019 0:00	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/26/2019 17:05	
19081552-030A	DUP 002-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 3:45
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 17:02
19081552-030B	DUP 002-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:54	08/26/2019 21:33
		SW-846 7470A (Total)		08/23/2019 11:51	08/25/2019 19:59
19081552-030C	DUP 002-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 9012A (Total)		08/23/2019 17:06	08/26/2019 15:58
19081552-030D	DUP 002-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		08/27/2019 12:40	
19081552-031A	DUP 003-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 4:23
		SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 17:40
19081552-031B	DUP 003-WG-20190821	08/21/2019 0:00	08/22/2019 16:00		
		SW-846 3005A, 6010B, Metals by ICP (Total)		08/26/2019 8:54	08/26/2019 21:37
		SW-846 7470A (Total)		08/23/2019 11:51	08/25/2019 20:05

## Dates Report

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

Sample ID	Client Sample ID	Collection Date	Received Date		Prep Date/Time	Analysis Date/Time
			Test Name			
19081552-031C	DUP 003-WG-20190821	08/21/2019 0:00	SW-846 9012A (Total)	08/22/2019 16:00	08/23/2019 17:06	08/26/2019 18:04
19081552-031D	DUP 003-WG-20190821	08/21/2019 0:00	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS	08/22/2019 16:00		08/26/2019 17:59
			SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS			08/27/2019 13:06
19081552-032A	EB-01-WQ-20190821	08/21/2019 8:55	SW-846 3510C,8270C, Semi-Volatile Organic Compounds	08/22/2019 16:00	08/27/2019 12:15	08/28/2019 5:00
			SW-846 3510C,8270C, Semi-Volatile Organic Compounds		08/27/2019 12:15	08/28/2019 16:25
19081552-032B	EB-01-WQ-20190821	08/21/2019 8:55	SW-846 3005A, 6010B, Metals by ICP (Total)	08/22/2019 16:00	08/26/2019 8:54	08/26/2019 21:40
			SW-846 7470A (Total)		08/23/2019 11:51	08/25/2019 20:08
19081552-032C	EB-01-WQ-20190821	08/21/2019 8:55	SW-846 9012A (Total)	08/22/2019 16:00	08/23/2019 17:06	08/26/2019 12:47
19081552-032D	EB-01-WQ-20190821	08/21/2019 8:55	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS	08/22/2019 16:00		08/26/2019 18:26
19081552-033A	TB-01-WQ-201908	08/22/2019 16:00	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS	08/22/2019 16:00		08/26/2019 19:19

## Quality Control Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### SW-846 9012A (TOTAL)

Batch 156687 SampType: MBLK		Units mg/L								Date Analyzed		
SamplID: MBLK 190823 TCN1												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005			< 0.005	0.00300C	0	0			-100	100	08/26/2019

### Batch 156687 SampType: LCS

Batch 156687 SampType: LCS		Units mg/L								Date Analyzed		
SamplID: LCS 190823 TCN1												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005			0.021	0.02500	0	85.1			85	115	08/26/2019

### Batch 156687 SampType: MS

Batch 156687 SampType: MS		Units mg/L								Date Analyzed		
SamplID: 19081552-002CMS												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005	E		0.069	0.02500	0.04246	106.0			75	125	08/26/2019

### Batch 156687 SampType: MSD

Batch 156687 SampType: MSD		Units mg/L								RPD Limit 15	Date Analyzed	
SamplID: 19081552-002CMSD												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		RPD Ref Val	%RPD	
Cyanide	0.005	E		0.066	0.02500	0.04246	93.1			0.06895	4.79	08/26/2019

### Batch 156687 SampType: MS

Batch 156687 SampType: MS		Units mg/L								Date Analyzed		
SamplID: 19081552-013CMS												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.025			0.123	0.02500	0.09895	94.7			75	125	08/26/2019

### Batch 156687 SampType: MSD

Batch 156687 SampType: MSD		Units mg/L								RPD Limit 15	Date Analyzed	
SamplID: 19081552-013CMSD												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		RPD Ref Val	%RPD	
Cyanide	0.025			0.124	0.02500	0.09895	98.5			0.1226	0.78	08/26/2019

### Batch 156689 SampType: MBLK

Batch 156689 SampType: MBLK		Units mg/L								Date Analyzed		
SamplID: MBLK 190823 TCN2												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005			< 0.005	0.00300C	0	0			-100	100	08/26/2019

### Batch 156689 SampType: LCS

Batch 156689 SampType: LCS		Units mg/L								Date Analyzed		
SamplID: LCS 190823 TCN2												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005			0.026	0.02500	0	102.5			85	115	08/26/2019

### Batch 156689 SampType: MS

Batch 156689 SampType: MS		Units mg/L								Date Analyzed		
SamplID: 19081552-021CMS												
Analyses	RL	Qual		Result	Spike	SPK	Ref Val	%REC		Low Limit	High Limit	
Cyanide	0.005			0.020	0.02500	0	80.8			75	125	08/26/2019

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

**SW-846 9012A (TOTAL)**

Batch 156689 SampType: MSD		Units mg/L		RPD Limit 15						
SampID: 19081552-021CMSD										
Analyses		RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD Ref Val %RPD	
Cyanide		0.005	R	0.027	0.02500	0	106.2	0.02020	27.23	08/26/2019

**Batch 156689 SampType: MS**

Batch 156689 SampType: MS		Units mg/L		Date Analyzed						
SampID: 19081552-032CMS										
Analyses		RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	
Cyanide		0.005		0.023	0.02500	0	93.5	75	125	08/26/2019

**Batch 156689 SampType: MSD**

Batch 156689 SampType: MSD		Units mg/L		RPD Limit 15						
SampID: 19081552-032CMSD								Date Analyzed		
Analyses		RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD Ref Val %RPD	
Cyanide		0.005		0.025	0.02500	0	100.7	0.02336	7.48	08/26/2019

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**

Batch 156700 SampType: MBLK		Units mg/L		Date Analyzed						
SampID: MBLK-156700										
Analyses		RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	
Arsenic		0.0250		< 0.0250	0.00870C	0	0	-100	100	08/26/2019
Barium		0.0025		< 0.0025	0.000700C	0	0	-100	100	08/26/2019
Cadmium		0.0020		< 0.0020	0.000500C	0	0	-100	100	08/26/2019
Chromium		0.0050		< 0.0050	0.00280C	0	0	-100	100	08/26/2019
Lead		0.0150		< 0.0150	0.00140C	0	0	-100	100	08/26/2019
Selenium		0.0400		< 0.0400	0.01700C	0	0	-100	100	08/26/2019
Silver		0.0070		< 0.0070	0.00270C	0	0	-100	100	08/26/2019

**Batch 156700 SampType: LCS**

Batch 156700 SampType: LCS		Units mg/L		Date Analyzed						
SampID: LCS-156700										
Analyses		RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	
Arsenic		0.0250		0.494	0.5000	0	98.8	85	115	08/26/2019
Barium		0.0025		1.97	2.000	0	98.4	85	115	08/26/2019
Cadmium		0.0020		0.0488	0.05000	0	97.6	85	115	08/26/2019
Chromium		0.0050		0.189	0.2000	0	94.7	85	115	08/26/2019
Lead		0.0150		0.483	0.5000	0	96.6	85	115	08/26/2019
Selenium		0.0400		0.495	0.5000	0	99.0	85	115	08/26/2019
Silver		0.0070		0.0476	0.05000	0	95.2	85	115	08/26/2019

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**
**Batch 156700 SampType: MS**      Units mg/L

SampID: 19081552-002BMS

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic	0.0250		<b>0.499</b>	0.5000	0	99.8	75	125		08/26/2019
Barium	0.0025		<b>2.05</b>	2.000	0.05840	99.6	75	125		08/26/2019
Cadmium	0.0020		<b>0.0488</b>	0.05000	0	97.6	75	125		08/26/2019
Chromium	0.0050		<b>0.192</b>	0.2000	0	95.8	75	125		08/26/2019
Lead	0.0150		<b>0.482</b>	0.5000	0	96.5	75	125		08/26/2019
Selenium	0.0400		<b>0.495</b>	0.5000	0	98.9	75	125		08/26/2019
Silver	0.0070		<b>0.0484</b>	0.05000	0	96.8	75	125		08/26/2019

**Batch 156700 SampType: MSD**      Units mg/L

SampID: 19081552-002BMSD

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	Date Analyzed
Arsenic	0.0250		<b>0.502</b>	0.5000	0	100.3	0.4990	0.50		08/26/2019	
Barium	0.0025		<b>2.07</b>	2.000	0.05840	100.4	2.050	0.78		08/26/2019	
Cadmium	0.0020		<b>0.0490</b>	0.05000	0	98.0	0.04880	0.41		08/26/2019	
Chromium	0.0050		<b>0.192</b>	0.2000	0	96.2	0.1916	0.36		08/26/2019	
Lead	0.0150		<b>0.485</b>	0.5000	0	96.9	0.4824	0.48		08/26/2019	
Selenium	0.0400		<b>0.498</b>	0.5000	0	99.5	0.4946	0.58		08/26/2019	
Silver	0.0070		<b>0.0484</b>	0.05000	0	96.8	0.04840	0.00		08/26/2019	

**Batch 156700 SampType: MS**      Units mg/L

SampID: 19081552-013BMS

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic	0.0250		<b>0.502</b>	0.5000	0	100.4	75	125		08/26/2019
Barium	0.0025		<b>2.13</b>	2.000	0.1198	100.4	75	125		08/26/2019
Cadmium	0.0020		<b>0.0498</b>	0.05000	0	99.6	75	125		08/26/2019
Chromium	0.0050		<b>0.196</b>	0.2000	0	98.2	75	125		08/26/2019
Lead	0.0150		<b>0.490</b>	0.5000	0	98.1	75	125		08/26/2019
Selenium	0.0400		<b>0.497</b>	0.5000	0	99.4	75	125		08/26/2019
Silver	0.0070		<b>0.0489</b>	0.05000	0	97.8	75	125		08/26/2019

**Batch 156700 SampType: MSD**      Units mg/L

SampID: 19081552-013BMSD

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	Date Analyzed
Arsenic	0.0250		<b>0.500</b>	0.5000	0	100.0	0.5018	0.38		08/26/2019	
Barium	0.0025		<b>2.11</b>	2.000	0.1198	99.5	2.127	0.80		08/26/2019	
Cadmium	0.0020		<b>0.0496</b>	0.05000	0	99.2	0.04980	0.40		08/26/2019	
Chromium	0.0050		<b>0.194</b>	0.2000	0	97.2	0.1965	1.07		08/26/2019	
Lead	0.0150		<b>0.487</b>	0.5000	0	97.4	0.4904	0.68		08/26/2019	
Selenium	0.0400		<b>0.491</b>	0.5000	0	98.2	0.4968	1.13		08/26/2019	
Silver	0.0070		<b>0.0484</b>	0.05000	0	96.8	0.04890	1.03		08/26/2019	

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**

**Batch 156701 SampType: MBLK**      Units mg/L

SampID: MBLK-156701

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic	0.0250		< 0.0250	0.00870C	0	0	-100	100	08/26/2019	
Barium	0.0025		< 0.0025	0.000700I	0	0	-100	100	08/26/2019	
Cadmium	0.0020		< 0.0020	0.000500I	0	0	-100	100	08/26/2019	
Chromium	0.0050		< 0.0050	0.00280C	0	0	-100	100	08/26/2019	
Lead	0.0150		< 0.0150	0.00140C	0	0	-100	100	08/26/2019	
Selenium	0.0400		< 0.0400	0.01700	0	0	-100	100	08/26/2019	
Silver	0.0070		< 0.0070	0.00270C	0	0	-100	100	08/26/2019	

**Batch 156701 SampType: LCS**      Units mg/L

SampID: LCS-156701

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic	0.0250		0.489	0.5000	0	97.8	85	115	08/26/2019	
Barium	0.0025		1.95	2.000	0	97.6	85	115	08/26/2019	
Cadmium	0.0020		0.0481	0.05000	0	96.2	85	115	08/26/2019	
Chromium	0.0050		0.187	0.2000	0	93.3	85	115	08/26/2019	
Lead	0.0150		0.475	0.5000	0	95.0	85	115	08/26/2019	
Selenium	0.0400		0.488	0.5000	0	97.6	85	115	08/26/2019	
Silver	0.0070		0.0476	0.05000	0	95.2	85	115	08/26/2019	

**Batch 156701 SampType: MS**      Units mg/L

SampID: 19081552-021BMS

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic	0.0250		0.495	0.5000	0	98.9	75	125	08/26/2019	
Barium	0.0025		2.06	2.000	0.07620	99.1	75	125	08/26/2019	
Cadmium	0.0020		0.0488	0.05000	0	97.6	75	125	08/26/2019	
Chromium	0.0050		0.193	0.2000	0	96.5	75	125	08/26/2019	
Lead	0.0150		0.482	0.5000	0	96.3	75	125	08/26/2019	
Selenium	0.0400		0.486	0.5000	0	97.2	75	125	08/26/2019	
Silver	0.0070		0.0482	0.05000	0	96.4	75	125	08/26/2019	

**Batch 156701 SampType: MSD**      Units mg/L

SampID: 19081552-021BMSD

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Arsenic	0.0250		0.504	0.5000	0	100.8	0.4947	1.82	08/26/2019	
Barium	0.0025		2.09	2.000	0.07620	100.8	2.059	1.64	08/26/2019	
Cadmium	0.0020		0.0495	0.05000	0	99.0	0.04880	1.42	08/26/2019	
Chromium	0.0050		0.195	0.2000	0	97.4	0.1929	0.93	08/26/2019	
Lead	0.0150		0.487	0.5000	0	97.5	0.4815	1.22	08/26/2019	
Selenium	0.0400		0.497	0.5000	0	99.5	0.4861	2.30	08/26/2019	
Silver	0.0070		0.0490	0.05000	0	98.0	0.04820	1.65	08/26/2019	

## Quality Control Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch	156701	SampType	MS	Units	mg/L								
SampID: 19081552-027BMS													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.0250				<b>0.504</b>	0.5000	0	100.7	75	125	08/26/2019	
Barium		0.0025				<b>2.13</b>	2.000	0.1086	101.2	75	125	08/26/2019	
Cadmium		0.0020				<b>0.0494</b>	0.05000	0	98.8	75	125	08/26/2019	
Chromium		0.0050				<b>0.196</b>	0.2000	0	97.8	75	125	08/26/2019	
Lead		0.0150				<b>0.487</b>	0.5000	0	97.3	75	125	08/26/2019	
Selenium		0.0400				<b>0.487</b>	0.5000	0	97.4	75	125	08/26/2019	
Silver		0.0070				<b>0.0495</b>	0.05000	0	99.0	75	125	08/26/2019	

### Batch 156701 SampType: MSD

Batch	156701	SampType	MSD	Units	mg/L							RPD Limit 20	Date Analyzed	
SampID: 19081552-027BMSD														
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	Date Analyzed
Arsenic		0.0250				<b>0.510</b>	0.5000	0	101.9	0.5036	1.20	08/26/2019		
Barium		0.0025				<b>2.16</b>	2.000	0.1086	102.4	2.133	1.07	08/26/2019		
Cadmium		0.0020				<b>0.0497</b>	0.05000	0	99.4	0.04940	0.61	08/26/2019		
Chromium		0.0050				<b>0.197</b>	0.2000	0	98.3	0.1956	0.51	08/26/2019		
Lead		0.0150				<b>0.490</b>	0.5000	0	98.0	0.4867	0.70	08/26/2019		
Selenium		0.0400				<b>0.499</b>	0.5000	0	99.9	0.4869	2.53	08/26/2019		
Silver		0.0070				<b>0.0500</b>	0.05000	0	100.0	0.04950	1.01	08/26/2019		

### SW-846 7470A (TOTAL)

Batch	156677	SampType	MBLK	Units	mg/L								
SampID: MBLK-156677													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020				< 0.00020	0.00055C	0	0	-100	100	08/25/2019	

### Batch 156677 SampType: LCS

Batch	156677	SampType	LCS	Units	mg/L								
SampID: LCS-156677													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020				<b>0.00567</b>	0.00500C	0	113.5	85	115	08/25/2019	

### Batch 156677 SampType: MS

Batch	156677	SampType	MS	Units	mg/L								
SampID: 19081552-002BMS													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020				<b>0.00576</b>	0.00500C	0	115.3	75	125	08/25/2019	

### Batch 156677 SampType: MSD

Batch	156677	SampType	MSD	Units	mg/L							RPD Limit 15	
SampID: 19081552-002BMSD													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD
Mercury		0.00020				<b>0.00577</b>	0.00500C	0	115.5	0.005765	0.16	08/25/2019	

## Quality Control Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### **SW-846 7470A (TOTAL)**

<b>Batch 156677 SampType: MS</b>		Units mg/L											
SampID: 19081552-013BMS				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020					<b>0.00574</b>	0.00500C	0	114.9	75	125	08/25/2019

### **Batch 156677 SampType: MSD**

SampID: 19081552-013BMSD		Units mg/L								RPD Limit 15			
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020					<b>0.00558</b>	0.00500C	0	111.6	0.005743	2.90	08/25/2019

### **Batch 156678 SampType: MBLK**

SampID: MBLK-156678		Units mg/L											
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020					< 0.00020	0.00055C	0	0	-100	100	08/25/2019

### **Batch 156678 SampType: LCS**

SampID: LCS-156678		Units mg/L											
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020					<b>0.00553</b>	0.00500C	0	110.5	85	115	08/25/2019

### **Batch 156678 SampType: MS**

SampID: 19081552-016BMS		Units mg/L											
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020					<b>0.00576</b>	0.00500C	0	115.2	75	125	08/25/2019

### **Batch 156678 SampType: MSD**

SampID: 19081552-016BMSD		Units mg/L								RPD Limit 15			
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020					<b>0.00564</b>	0.00500C	0	112.9	0.005760	2.02	08/25/2019

### **Batch 156678 SampType: MS**

SampID: 19081552-019BMS		Units mg/L											
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020					<b>0.00620</b>	0.00500C	0.00007110	122.6	75	125	08/25/2019

### **Batch 156678 SampType: MSD**

SampID: 19081552-019BMSD		Units mg/L								RPD Limit 15			
				Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020					<b>0.00618</b>	0.00500C	0.00007110	122.3	0.006200	0.27	08/25/2019

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

## SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch	156710	SampType	MBLK	Units	mg/L						Date Analyzed	
SampID:	MBLK-156710											
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC		
Acenaphthene		0.000100				ND					08/26/2019	
Acenaphthylene		0.000100				ND					08/26/2019	
Anthracene		0.000100				ND					08/26/2019	
Benzo(a)anthracene		0.000100				ND					08/26/2019	
Benzo(a)pyrene		0.000100				ND					08/26/2019	
Benzo(b)fluoranthene		0.000100				ND					08/26/2019	
Benzo(g,h,i)perylene		0.000200				ND					08/26/2019	
Benzo(k)fluoranthene		0.000100				ND					08/26/2019	
Chrysene		0.000100				ND					08/26/2019	
Dibenzo(a,h)anthracene		0.000100				ND					08/26/2019	
Fluoranthene		0.000200				ND					08/26/2019	
Fluorene		0.000100				ND					08/26/2019	
Indeno(1,2,3-cd)pyrene		0.000100				ND					08/26/2019	
Naphthalene		0.000200				ND					08/26/2019	
Phenanthrene		0.000400				ND					08/26/2019	
Pyrene		0.000200				ND					08/26/2019	
Surr: 2-Fluorobiphenyl					0.000901	0.00100C			90.1	30	133	08/26/2019
Surr: Nitrobenzene-d5					0.000925	0.00100C			92.5	39.8	123	08/26/2019
Surr: p-Terphenyl-d14					0.00123	0.00100C			123.1	48.1	144	08/26/2019

## Batch 156710 SampType: LCS Units mg/L

Batch	156710	SampType	LCS	Units	mg/L						Date Analyzed	
SampID:	LCS-156710											
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC		
Acenaphthene		0.000100				0.00171	0.00200C	0	85.5	46.9	113	08/26/2019
Acenaphthylene		0.000100				0.00188	0.00200C	0	94.2	45.9	129	08/26/2019
Anthracene		0.000100				0.00175	0.00200C	0	87.6	48.5	117	08/26/2019
Benzo(a)anthracene		0.000100				0.00172	0.00200C	0	85.9	51.2	117	08/26/2019
Benzo(a)pyrene		0.000100				0.00203	0.00200C	0	101.5	48.1	127	08/26/2019
Benzo(b)fluoranthene		0.000100				0.00186	0.00200C	0	93.0	38.1	135	08/26/2019
Benzo(g,h,i)perylene		0.000200				0.00168	0.00200C	0	83.9	46.5	132	08/26/2019
Benzo(k)fluoranthene		0.000100				0.00177	0.00200C	0	88.7	47.5	126	08/26/2019
Chrysene		0.000100				0.00169	0.00200C	0	84.7	50.6	121	08/26/2019
Dibenzo(a,h)anthracene		0.000100				0.00184	0.00200C	0	91.8	49.2	137	08/26/2019
Fluoranthene		0.000200				0.00197	0.00200C	0	98.4	48.8	124	08/26/2019
Fluorene		0.000100				0.00183	0.00200C	0	91.4	45.5	123	08/26/2019
Indeno(1,2,3-cd)pyrene		0.000100				0.00193	0.00200C	0	96.6	37.1	143	08/26/2019
Naphthalene		0.000200				0.00166	0.00200C	0	82.8	18.5	145	08/26/2019
Phenanthrene		0.000400				0.00207	0.00200C	0	103.4	44.7	131	08/26/2019
Pyrene		0.000200				0.00183	0.00200C	0	91.7	47.5	123	08/26/2019
Surr: 2-Fluorobiphenyl						0.000916	0.00100C		91.6	30	133	08/26/2019
Surr: Nitrobenzene-d5						0.000865	0.00100C		86.5	39.8	123	08/26/2019
Surr: p-Terphenyl-d14						0.00111	0.00100C		110.8	48.1	144	08/26/2019

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

## SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch 156710	SampType: LCSD	Units mg/L	RPD Limit 40						Date Analyzed		
Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	
Acenaphthene	0.000100		<b>0.00149</b> 0.00200C	0	74.6	0.001710	13.65	08/26/2019			
Acenaphthylene	0.000100		<b>0.00172</b> 0.00200C	0	86.1	0.001884	8.98	08/26/2019			
Anthracene	0.000100		<b>0.00170</b> 0.00200C	0	85.1	0.001752	2.88	08/26/2019			
Benzo(a)anthracene	0.000100		<b>0.00167</b> 0.00200C	0	83.4	0.001718	2.93	08/26/2019			
Benzo(a)pyrene	0.000100		<b>0.00196</b> 0.00200C	0	98.0	0.002031	3.53	08/26/2019			
Benzo(b)fluoranthene	0.000100		<b>0.00186</b> 0.00200C	0	93.0	0.001860	0.00	08/26/2019			
Benzo(g,h,i)perylene	0.000200		<b>0.00168</b> 0.00200C	0	84.0	0.001677	0.20	08/26/2019			
Benzo(k)fluoranthene	0.000100		<b>0.00188</b> 0.00200C	0	94.0	0.001775	5.70	08/26/2019			
Chrysene	0.000100		<b>0.00161</b> 0.00200C	0	80.4	0.001694	5.26	08/26/2019			
Dibenzo(a,h)anthracene	0.000100		<b>0.00177</b> 0.00200C	0	88.5	0.001835	3.60	08/26/2019			
Fluoranthene	0.000200		<b>0.00182</b> 0.00200C	0	91.0	0.001968	7.75	08/26/2019			
Fluorene	0.000100		<b>0.00158</b> 0.00200C	0	79.1	0.001828	14.42	08/26/2019			
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00192</b> 0.00200C	0	96.2	0.001932	0.36	08/26/2019			
Naphthalene	0.000200		<b>0.00144</b> 0.00200C	0	72.1	0.001657	13.82	08/26/2019			
Phenanthrene	0.000400		<b>0.00184</b> 0.00200C	0	91.8	0.002067	11.84	08/26/2019			
Pyrene	0.000200		<b>0.00178</b> 0.00200C	0	88.9	0.001834	3.06	08/26/2019			
Surr: 2-Fluorobiphenyl			<b>0.000786</b> 0.00100C		78.6			08/26/2019			
Surr: Nitrobenzene-d5			<b>0.000805</b> 0.00100C		80.5			08/26/2019			
Surr: p-Terphenyl-d14			<b>0.00102</b> 0.00100C		102.0			08/26/2019			

## Batch 156710 SampType: MS Units mg/L

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene	0.000100		<b>0.00159</b> 0.00200C	0	79.6	28.3	133	08/26/2019		
Acenaphthylene	0.000100		<b>0.00170</b> 0.00200C	0	84.8	5	176	08/26/2019		
Anthracene	0.000100		<b>0.00171</b> 0.00200C	0	85.4	34.6	131	08/26/2019		
Benzo(a)anthracene	0.000100		<b>0.00155</b> 0.00200C	0	77.7	40.3	132	08/26/2019		
Benzo(a)pyrene	0.000100		<b>0.00161</b> 0.00200C	0	80.7	40.8	132	08/26/2019		
Benzo(b)fluoranthene	0.000100		<b>0.00157</b> 0.00200C	0	78.7	41.9	132	08/26/2019		
Benzo(g,h,i)perylene	0.000200		<b>0.00135</b> 0.00200C	0	67.3	46	132	08/26/2019		
Benzo(k)fluoranthene	0.000100		<b>0.00155</b> 0.00200C	0	77.6	49.4	126	08/26/2019		
Chrysene	0.000100		<b>0.00162</b> 0.00200C	0	81.1	46.1	129	08/26/2019		
Dibenzo(a,h)anthracene	0.000100		<b>0.00147</b> 0.00200C	0	73.5	42.1	146	08/26/2019		
Fluoranthene	0.000200		<b>0.00164</b> 0.00200C	0	81.8	23.9	164	08/26/2019		
Fluorene	0.000100		<b>0.00163</b> 0.00200C	0	81.6	24.3	148	08/26/2019		
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00155</b> 0.00200C	0	77.4	26.6	157	08/26/2019		
Naphthalene	0.000200		<b>0.00173</b> 0.00200C	0	86.5	24.2	132	08/26/2019		
Phenanthrene	0.000400		<b>0.00184</b> 0.00200C	0	92.2	36.6	139	08/26/2019		
Pyrene	0.000200		<b>0.00161</b> 0.00200C	0	80.5	14.6	169	08/26/2019		
Surr: 2-Fluorobiphenyl			<b>0.000800</b> 0.00100C		80.0	21.4	142	08/26/2019		
Surr: Nitrobenzene-d5			<b>0.000801</b> 0.00100C		80.1	15	163	08/26/2019		
Surr: p-Terphenyl-d14			<b>0.000890</b> 0.00100C		89.0	10	173	08/26/2019		

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

## SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch 156710	SampType: MSD	Units mg/L	RPD Limit 40						Date Analyzed
SampID: 19081552-002AMSD									
Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD Ref Val	%RPD
Acenaphthene	0.000100		<b>0.00163</b> 0.00200C	0	81.6	0.001591	2.49		08/27/2019
Acenaphthylene	0.000100		<b>0.00174</b> 0.00200C	0	87.0	0.001697	2.54		08/27/2019
Anthracene	0.000100		<b>0.00172</b> 0.00200C	0	86.2	0.001708	0.89		08/27/2019
Benzo(a)anthracene	0.000100		<b>0.00177</b> 0.00200C	0	88.7	0.001554	13.22		08/27/2019
Benzo(a)pyrene	0.000100		<b>0.00199</b> 0.00200C	0	99.6	0.001614	20.98		08/27/2019
Benzo(b)fluoranthene	0.000100		<b>0.00187</b> 0.00200C	0	93.5	0.001574	17.24		08/27/2019
Benzo(g,h,i)perylene	0.000200		<b>0.00170</b> 0.00200C	0	84.9	0.001346	23.21		08/27/2019
Benzo(k)fluoranthene	0.000100		<b>0.00180</b> 0.00200C	0	90.2	0.001552	14.94		08/27/2019
Chrysene	0.000100		<b>0.00176</b> 0.00200C	0	88.0	0.001621	8.23		08/27/2019
Dibenzo(a,h)anthracene	0.000100		<b>0.00195</b> 0.00200C	0	97.4	0.001471	27.95		08/27/2019
Fluoranthene	0.000200		<b>0.00177</b> 0.00200C	0	88.7	0.001636	8.07		08/27/2019
Fluorene	0.000100		<b>0.00176</b> 0.00200C	0	88.1	0.001632	7.68		08/27/2019
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00227</b> 0.00200C	0	113.5	0.001548	37.77		08/27/2019
Naphthalene	0.000200		<b>0.00168</b> 0.00200C	0	84.0	0.001730	2.97		08/27/2019
Phenanthrene	0.000400		<b>0.00179</b> 0.00200C	0	89.7	0.001843	2.70		08/27/2019
Pyrene	0.000200		<b>0.00180</b> 0.00200C	0	90.0	0.001610	11.10		08/27/2019
Surr: 2-Fluorobiphenyl			<b>0.000863</b> 0.00100C		86.3				08/27/2019
Surr: Nitrobenzene-d5			<b>0.000796</b> 0.00100C		79.6				08/27/2019
Surr: p-Terphenyl-d14			<b>0.00109</b> 0.00100C		109.5				08/27/2019

Batch 156749	SampType: MBLK	Units mg/L							Date Analyzed
SampID: MBLK-156749									
Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit
Acenaphthene	0.000100		<b>ND</b>						08/27/2019
Acenaphthylene	0.000100		<b>ND</b>						08/27/2019
Anthracene	0.000100		<b>ND</b>						08/27/2019
Benzo(a)anthracene	0.000100		<b>ND</b>						08/27/2019
Benzo(a)pyrene	0.000100		<b>ND</b>						08/27/2019
Benzo(b)fluoranthene	0.000100		<b>ND</b>						08/27/2019
Benzo(g,h,i)perylene	0.000200		<b>ND</b>						08/27/2019
Benzo(k)fluoranthene	0.000100		<b>ND</b>						08/27/2019
Chrysene	0.000100		<b>ND</b>						08/27/2019
Dibenzo(a,h)anthracene	0.000100		<b>ND</b>						08/27/2019
Fluoranthene	0.000200		<b>ND</b>						08/27/2019
Fluorene	0.000100		<b>ND</b>						08/27/2019
Indeno(1,2,3-cd)pyrene	0.000100		<b>ND</b>						08/27/2019
Naphthalene	0.000200		<b>ND</b>						08/27/2019
Phenanthrene	0.000400		<b>ND</b>						08/27/2019
Pyrene	0.000200		<b>ND</b>						08/27/2019
Surr: 2-Fluorobiphenyl			<b>0.000777</b> 0.00100C		77.7	30	133		08/27/2019
Surr: Nitrobenzene-d5			<b>0.000832</b> 0.00100C		83.2	39.8	123		08/27/2019
Surr: p-Terphenyl-d14			<b>0.00109</b> 0.00100C		109.4	48.1	144		08/27/2019

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

## SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch 156749	SampType: LCS	Units mg/L										
SampID: LCS-156749			Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene	0.000100		<b>0.00164</b> 0.00200C	0		82.0		46.9	113			08/27/2019
Acenaphthylene	0.000100		<b>0.00189</b> 0.00200C	0		94.5		45.9	129			08/27/2019
Anthracene	0.000100		<b>0.00173</b> 0.00200C	0		86.3		48.5	117			08/27/2019
Benzo(a)anthracene	0.000100		<b>0.00176</b> 0.00200C	0		87.9		51.2	117			08/27/2019
Benzo(a)pyrene	0.000100		<b>0.00200</b> 0.00200C	0		100.0		48.1	127			08/27/2019
Benzo(b)fluoranthene	0.000100		<b>0.00180</b> 0.00200C	0		89.9		38.1	135			08/27/2019
Benzo(g,h,i)perylene	0.000200		<b>0.00158</b> 0.00200C	0		78.9		46.5	132			08/27/2019
Benzo(k)fluoranthene	0.000100		<b>0.00186</b> 0.00200C	0		92.8		47.5	126			08/27/2019
Chrysene	0.000100		<b>0.00182</b> 0.00200C	0		90.9		50.6	121			08/27/2019
Dibenzo(a,h)anthracene	0.000100		<b>0.00175</b> 0.00200C	0		87.5		49.2	137			08/27/2019
Fluoranthene	0.000200		<b>0.00183</b> 0.00200C	0		91.5		48.8	124			08/27/2019
Fluorene	0.000100		<b>0.00173</b> 0.00200C	0		86.5		45.5	123			08/27/2019
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00162</b> 0.00200C	0		81.2		37.1	143			08/27/2019
Naphthalene	0.000200		<b>0.00153</b> 0.00200C	0		76.3		18.5	145			08/27/2019
Phenanthrene	0.000400		<b>0.00188</b> 0.00200C	0		93.8		44.7	131			08/27/2019
Pyrene	0.000200		<b>0.00180</b> 0.00200C	0		90.0		47.5	123			08/27/2019
Surr: 2-Fluorobiphenyl			<b>0.000865</b> 0.00100C			86.5		30	133			08/27/2019
Surr: Nitrobenzene-d5			<b>0.000883</b> 0.00100C			88.3		39.8	123			08/27/2019
Surr: p-Terphenyl-d14			<b>0.00113</b> 0.00100C			113.5		48.1	144			08/27/2019

Batch 156749	SampType: LCSD	Units mg/L	RPD Limit 40									
SampID: LCSD-156749			Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Acenaphthene	0.000100		<b>0.00156</b> 0.00200C	0		78.0		0.001640	4.96			08/27/2019
Acenaphthylene	0.000100		<b>0.00180</b> 0.00200C	0		90.1		0.001890	4.81			08/27/2019
Anthracene	0.000100		<b>0.00181</b> 0.00200C	0		90.5		0.001726	4.80			08/27/2019
Benzo(a)anthracene	0.000100		<b>0.00179</b> 0.00200C	0		89.4		0.001759	1.64			08/27/2019
Benzo(a)pyrene	0.000100		<b>0.00201</b> 0.00200C	0		100.7		0.002001	0.63			08/27/2019
Benzo(b)fluoranthene	0.000100		<b>0.00187</b> 0.00200C	0		93.5		0.001798	3.99			08/27/2019
Benzo(g,h,i)perylene	0.000200		<b>0.00167</b> 0.00200C	0		83.7		0.001577	6.00			08/27/2019
Benzo(k)fluoranthene	0.000100		<b>0.00195</b> 0.00200C	0		97.4		0.001856	4.83			08/27/2019
Chrysene	0.000100		<b>0.00192</b> 0.00200C	0		96.2		0.001818	5.66			08/27/2019
Dibenzo(a,h)anthracene	0.000100		<b>0.00187</b> 0.00200C	0		93.6		0.001751	6.70			08/27/2019
Fluoranthene	0.000200		<b>0.00188</b> 0.00200C	0		94.0		0.001830	2.71			08/27/2019
Fluorene	0.000100		<b>0.00173</b> 0.00200C	0		86.3		0.001729	0.24			08/27/2019
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00206</b> 0.00200C	0		103.1		0.001623	23.83			08/27/2019
Naphthalene	0.000200		<b>0.00155</b> 0.00200C	0		77.3		0.001526	1.24			08/27/2019
Phenanthrene	0.000400		<b>0.00190</b> 0.00200C	0		95.1		0.001875	1.38			08/27/2019
Pyrene	0.000200		<b>0.00182</b> 0.00200C	0		91.0		0.001799	1.10			08/27/2019
Surr: 2-Fluorobiphenyl			<b>0.000815</b> 0.00100C			81.5						08/27/2019
Surr: Nitrobenzene-d5			<b>0.000853</b> 0.00100C			85.3						08/27/2019
Surr: p-Terphenyl-d14			<b>0.00114</b> 0.00100C			114.4						08/27/2019

Client: ERM

Work Order: 19081552

Client Project: Champaign GW

Report Date: 29-Aug-2019

## SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch 156749	SampType: MS	Units mg/L							
SamplD: 19081552-013AMS									Date Analyzed
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Acenaphthene	0.000100		<b>0.00172</b> 0.00200C	0	85.8	28.3	133		08/27/2019
Acenaphthylene	0.000100		<b>0.00193</b> 0.00200C	0	96.6	5	176		08/27/2019
Anthracene	0.000100		<b>0.00184</b> 0.00200C	0	91.9	34.6	131		08/27/2019
Benzo(a)anthracene	0.000100		<b>0.00186</b> 0.00200C	0	93.0	40.3	132		08/27/2019
Benzo(a)pyrene	0.000100		<b>0.00210</b> 0.00200C	0	104.8	40.8	132		08/27/2019
Benzo(b)fluoranthene	0.000100		<b>0.00203</b> 0.00200C	0	101.5	41.9	132		08/27/2019
Benzo(g,h,i)perylene	0.000200		<b>0.00177</b> 0.00200C	0	88.4	46	132		08/27/2019
Benzo(k)fluoranthene	0.000100		<b>0.00190</b> 0.00200C	0	95.0	49.4	126		08/27/2019
Chrysene	0.000100		<b>0.00186</b> 0.00200C	0	93.2	46.1	129		08/27/2019
Dibenzo(a,h)anthracene	0.000100		<b>0.00207</b> 0.00200C	0	103.6	42.1	146		08/27/2019
Fluoranthene	0.000200		<b>0.00200</b> 0.00200C	0	100.1	23.9	164		08/27/2019
Fluorene	0.000100		<b>0.00171</b> 0.00200C	0	85.3	24.3	148		08/27/2019
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00217</b> 0.00200C	0	108.4	26.6	157		08/27/2019
Naphthalene	0.000200		<b>0.00155</b> 0.00200C	0	77.3	24.2	132		08/27/2019
Phenanthrene	0.000400		<b>0.00196</b> 0.00200C	0	98.0	36.6	139		08/27/2019
Pyrene	0.000200		<b>0.00196</b> 0.00200C	0	97.9	14.6	169		08/27/2019
Surr: 2-Fluorobiphenyl			<b>0.000879</b> 0.00100C		87.9	21.4	142		08/27/2019
Surr: Nitrobenzene-d5			<b>0.000850</b> 0.00100C		85.0	15	163		08/27/2019
Surr: p-Terphenyl-d14			<b>0.00114</b> 0.00100C		114.5	10	173		08/27/2019

Batch 156749	SampType: MSD	Units mg/L	RPD Limit 40						
SamplD: 19081552-013AMSD									Date Analyzed
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Acenaphthene	0.000100		<b>0.00167</b> 0.00200C	0	83.4	0.001716	2.81	08/27/2019	
Acenaphthylene	0.000100		<b>0.00176</b> 0.00200C	0	88.2	0.001932	9.04	08/27/2019	
Anthracene	0.000100		<b>0.00163</b> 0.00200C	0	81.7	0.001839	11.79	08/27/2019	
Benzo(a)anthracene	0.000100		<b>0.00177</b> 0.00200C	0	88.7	0.001859	4.71	08/27/2019	
Benzo(a)pyrene	0.000100		<b>0.00195</b> 0.00200C	0	97.3	0.002095	7.39	08/27/2019	
Benzo(b)fluoranthene	0.000100		<b>0.00184</b> 0.00200C	0	92.2	0.002030	9.63	08/27/2019	
Benzo(g,h,i)perylene	0.000200		<b>0.00165</b> 0.00200C	0	82.6	0.001768	6.84	08/27/2019	
Benzo(k)fluoranthene	0.000100		<b>0.00180</b> 0.00200C	0	90.2	0.001900	5.22	08/27/2019	
Chrysene	0.000100		<b>0.00175</b> 0.00200C	0	87.7	0.001864	6.13	08/27/2019	
Dibenzo(a,h)anthracene	0.000100		<b>0.00191</b> 0.00200C	0	95.6	0.002072	8.02	08/27/2019	
Fluoranthene	0.000200		<b>0.00183</b> 0.00200C	0	91.3	0.002001	9.10	08/27/2019	
Fluorene	0.000100		<b>0.00166</b> 0.00200C	0	83.1	0.001706	2.59	08/27/2019	
Indeno(1,2,3-cd)pyrene	0.000100		<b>0.00211</b> 0.00200C	0	105.6	0.002169	2.68	08/27/2019	
Naphthalene	0.000200		<b>0.00154</b> 0.00200C	0	77.1	0.001546	0.25	08/27/2019	
Phenanthrene	0.000400		<b>0.00171</b> 0.00200C	0	85.7	0.001961	13.40	08/27/2019	
Pyrene	0.000200		<b>0.00181</b> 0.00200C	0	90.7	0.001958	7.67	08/27/2019	
Surr: 2-Fluorobiphenyl			<b>0.000849</b> 0.00100C		84.9				08/27/2019
Surr: Nitrobenzene-d5			<b>0.000872</b> 0.00100C		87.2				08/27/2019
Surr: p-Terphenyl-d14			<b>0.00108</b> 0.00100C		107.6				08/27/2019

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	156688	SampType	MBLK	Units	µg/L						Date Analyzed
SampID:	MBLK-T190823A-1										
Analyses		RL	Qual			Result	Spike	SPK Ref Val	%REC		
Benzene		0.5				ND					08/23/2019
Ethylbenzene		2.0				ND					08/23/2019
Toluene		2.0				ND					08/23/2019
Xylenes, Total		4.0				ND					08/23/2019
Surr: 1,2-Dichloroethane-d4						50.3	50.00	100.7	79.6	118	08/23/2019
Surr: 4-Bromofluorobenzene						51.3	50.00	102.6	83.9	115	08/23/2019
Surr: Dibromofluoromethane						49.6	50.00	99.2	84.9	113	08/23/2019
Surr: Toluene-d8						50.0	50.00	99.9	86.7	112	08/23/2019

Batch	156688	SampType	LCSD	Units	µg/L						RPD Limit 40	Date Analyzed
SampID:	LCSD-T190823A-1											
Analyses		RL	Qual			Result	Spike	SPK Ref Val	%REC		RPD Ref Val	%RPD
Benzene		0.5				49.4	50.00	0	98.8		48.45	1.92
Ethylbenzene		2.0				46.8	50.00	0	93.7		46.45	0.81
Toluene		2.0				46.1	50.00	0	92.1		45.26	1.75
Xylenes, Total		4.0				141	150.0	0	93.9		138.2	1.84
Surr: 1,2-Dichloroethane-d4						50.5	50.00		100.9			08/23/2019
Surr: 4-Bromofluorobenzene						51.0	50.00		102.1			08/23/2019
Surr: Dibromofluoromethane						51.4	50.00		102.8			08/23/2019
Surr: Toluene-d8						48.6	50.00		97.2			08/23/2019

Batch	156688	SampType	LCS	Units	µg/L						Date Analyzed	
SampID:	LCS-T190823A-1											
Analyses		RL	Qual			Result	Spike	SPK Ref Val	%REC			
Benzene		0.5				48.4	50.00	0	96.9		75.8	121
Ethylbenzene		2.0				46.4	50.00	0	92.9		80.7	114
Toluene		2.0				45.3	50.00	0	90.5		78.3	112
Xylenes, Total		4.0				138	150.0	0	92.2		80.2	113
Surr: 1,2-Dichloroethane-d4						51.2	50.00		102.3		79.6	118
Surr: 4-Bromofluorobenzene						49.9	50.00		99.8		83.9	115
Surr: Dibromofluoromethane						50.8	50.00		101.7		84.9	113
Surr: Toluene-d8						48.4	50.00		96.7		86.7	112

Batch	156688	SampType	MS	Units	µg/L						Date Analyzed	
SampID:	19081552-002DMS											
Analyses		RL	Qual			Result	Spike	SPK Ref Val	%REC			
Benzene		0.5				48.7	50.00	0	97.3		62.5	121
Ethylbenzene		2.0				47.0	50.00	0	94.0		74.4	130
Toluene		2.0				44.9	50.00	0	89.8		69.5	118
Xylenes, Total		4.0				93.4	100.0	0	93.4		71.1	125
Surr: 1,2-Dichloroethane-d4						50.6	50.00		101.2		79.6	118
Surr: 4-Bromofluorobenzene						52.0	50.00		103.9		83.9	115
Surr: Dibromofluoromethane						50.2	50.00		100.5		84.9	113
Surr: Toluene-d8						47.9	50.00		95.7		86.7	112

## Quality Control Results

<http://www.teklabinc.com/>
**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Batch	156688	SampType	MSD	Units	µg/L	RPD Limit 20						
						Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
SampID:	19081552-002DMSD											
Analyses		RL	Qual									
Benzene		0.5		47.3	50.00	0	94.6	48.66	2.81	08/23/2019		
Ethylbenzene		2.0		46.7	50.00	0	93.4	46.99	0.60	08/23/2019		
Toluene		2.0		43.6	50.00	0	87.2	44.89	2.94	08/23/2019		
Xylenes, Total		4.0		91.6	100.0	0	91.6	93.40	1.99	08/23/2019		
Surr: 1,2-Dichloroethane-d4				49.8	50.00		99.6			08/23/2019		
Surr: 4-Bromofluorobenzene				52.2	50.00		104.4			08/23/2019		
Surr: Dibromofluoromethane				49.3	50.00		98.6			08/23/2019		
Surr: Toluene-d8				46.4	50.00		92.8			08/23/2019		

**Batch 156712 SampType: MBLK Units µg/L**

Batch	156712	SampType	MBLK	Units	µg/L	Date Analyzed						
						Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
SampID:	MBLK-AE190823A-1											
Analyses		RL	Qual									
Benzene		0.5		ND						08/23/2019		
Ethylbenzene		2.0		ND						08/23/2019		
Toluene		2.0		ND						08/23/2019		
Xylenes, Total		4.0		ND						08/23/2019		
Surr: 1,2-Dichloroethane-d4				51.0	50.00		102.1	79.6	118	08/23/2019		
Surr: 4-Bromofluorobenzene				50.4	50.00		100.9	83.9	115	08/23/2019		
Surr: Dibromofluoromethane				48.1	50.00		96.2	84.9	113	08/23/2019		
Surr: Toluene-d8				52.1	50.00		104.2	86.7	112	08/23/2019		

**Batch 156712 SampType: LCS Units µg/L**

Batch	156712	SampType	LCS	Units	µg/L	Date Analyzed						
						Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
SampID:	LCS-AE190823A-1											
Analyses		RL	Qual									
Benzene		0.5		43.6	50.00	0	87.2	75.8	121	08/23/2019		
Ethylbenzene		2.0		45.2	50.00	0	90.3	80.7	114	08/23/2019		
Toluene		2.0		44.7	50.00	0	89.4	78.3	112	08/23/2019		
Xylenes, Total		4.0		135	150.0	0	90.2	80.2	113	08/23/2019		
Surr: 1,2-Dichloroethane-d4				51.1	50.00		102.2	79.6	118	08/23/2019		
Surr: 4-Bromofluorobenzene				50.4	50.00		100.7	83.9	115	08/23/2019		
Surr: Dibromofluoromethane				48.5	50.00		96.9	84.9	113	08/23/2019		
Surr: Toluene-d8				51.1	50.00		102.3	86.7	112	08/23/2019		

**Batch 156712 SampType: LCSD Units µg/L**

Batch	156712	SampType	LCSD	Units	µg/L	RPD Limit 40						
						Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
SampID:	LCSD-AE190823A-1											
Analyses		RL	Qual									
Benzene		0.5		47.5	50.00	0	95.0	43.59	8.56	08/23/2019		
Ethylbenzene		2.0		49.3	50.00	0	98.5	45.16	8.68	08/23/2019		
Toluene		2.0		48.7	50.00	0	97.4	44.72	8.52	08/23/2019		
Xylenes, Total		4.0		148	150.0	0	98.4	135.3	8.71	08/23/2019		
Surr: 1,2-Dichloroethane-d4				51.9	50.00		103.8			08/23/2019		
Surr: 4-Bromofluorobenzene				51.1	50.00		102.2			08/23/2019		
Surr: Dibromofluoromethane				49.1	50.00		98.1			08/23/2019		
Surr: Toluene-d8				51.2	50.00		102.4			08/23/2019		

## Quality Control Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

### SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	156712	SampType	MS	Units	µg/L								
SampID: 19081552-013DMS													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5				45.9	50.00	0	91.9		62.5	121	08/24/2019
Ethylbenzene		2.0				49.3	50.00	0	98.6		74.4	130	08/24/2019
Toluene		2.0				47.3	50.00	0	94.7		69.5	118	08/24/2019
Xylenes, Total		4.0				95.5	100.0	0	95.5		71.1	125	08/24/2019
Surr: 1,2-Dichloroethane-d4						50.8	50.00		101.6		79.6	118	08/24/2019
Surr: 4-Bromofluorobenzene						49.8	50.00		99.7		83.9	115	08/24/2019
Surr: Dibromofluoromethane						48.2	50.00		96.4		84.9	113	08/24/2019
Surr: Toluene-d8						51.3	50.00		102.6		86.7	112	08/24/2019

Batch	156712	SampType	MSD	Units	µg/L							RPD Limit 20	Date Analyzed	
SampID: 19081552-013DMSD														
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	Date Analyzed
Benzene		0.5				43.0	50.00	0	86.0		45.93	6.61	08/24/2019	
Ethylbenzene		2.0				46.2	50.00	0	92.4		49.31	6.49	08/24/2019	
Toluene		2.0				44.6	50.00	0	89.1		47.33	6.01	08/24/2019	
Xylenes, Total		4.0				89.7	100.0	0	89.7		95.50	6.30	08/24/2019	
Surr: 1,2-Dichloroethane-d4						50.6	50.00		101.2				08/24/2019	
Surr: 4-Bromofluorobenzene						50.1	50.00		100.2				08/24/2019	
Surr: Dibromofluoromethane						47.9	50.00		95.8				08/24/2019	
Surr: Toluene-d8						51.4	50.00		102.9				08/24/2019	

Batch	156726	SampType	MBLK	Units	µg/L							Date Analyzed	
SampID: MBLK-AE190826A-1													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5				ND							08/26/2019
Ethylbenzene		2.0				ND							08/26/2019
Toluene		2.0				ND							08/26/2019
Xylenes, Total		4.0				ND							08/26/2019
Surr: 1,2-Dichloroethane-d4						50.8	50.00		101.6		79.6	118	08/26/2019
Surr: 4-Bromofluorobenzene						50.2	50.00		100.4		83.9	115	08/26/2019
Surr: Dibromofluoromethane						48.4	50.00		96.8		84.9	113	08/26/2019
Surr: Toluene-d8						51.6	50.00		103.1		86.7	112	08/26/2019

Batch	156726	SampType	LCS	Units	µg/L							Date Analyzed	
SampID: LCS-AE190826A-1													
Analyses		RL	Qual			Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5				52.6	50.00	0	105.2		75.8	121	08/26/2019
Ethylbenzene		2.0				56.0	50.00	0	112.0		80.7	114	08/26/2019
Toluene		2.0				55.3	50.00	0	110.5		78.3	112	08/26/2019
Xylenes, Total		4.0				167	150.0	0	111.3		80.2	113	08/26/2019
Surr: 1,2-Dichloroethane-d4						51.4	50.00		102.7		79.6	118	08/26/2019
Surr: 4-Bromofluorobenzene						50.2	50.00		100.4		83.9	115	08/26/2019
Surr: Dibromofluoromethane						48.5	50.00		96.9		84.9	113	08/26/2019
Surr: Toluene-d8						51.5	50.00		103.1		86.7	112	08/26/2019

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Batch	156726	SampType	LCSD	Units	µg/L	RPD Limit 40				
SampID: LCSD-AE190826A-1										Date Analyzed
Analyses		RL	Qual		Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD
Benzene		0.5			<b>48.6</b>	50.00	0	97.3	52.62	7.88
Ethylbenzene		2.0			<b>51.3</b>	50.00	0	102.6	55.99	8.72
Toluene		2.0			<b>50.8</b>	50.00	0	101.6	55.26	8.39
Xylenes, Total		4.0			<b>153</b>	150.0	0	102.3	167.0	8.44
Surr: 1,2-Dichloroethane-d4					<b>51.8</b>	50.00		103.5		08/26/2019
Surr: 4-Bromofluorobenzene					<b>50.8</b>	50.00		101.6		08/26/2019
Surr: Dibromofluoromethane					<b>48.8</b>	50.00		97.6		08/26/2019
Surr: Toluene-d8					<b>51.7</b>	50.00		103.4		08/26/2019

**Batch 156759 SampType: MBLK Units µg/L**

Batch	156759	SampType	MBLK	Units	µg/L	Date Analyzed				
SampID: MBLK-T190827A-1										Date Analyzed
Analyses		RL	Qual		Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit
Benzene		0.5			<b>ND</b>					08/27/2019
Ethylbenzene		2.0			<b>ND</b>					08/27/2019
Toluene		2.0			<b>ND</b>					08/27/2019
Xylenes, Total		4.0			<b>ND</b>					08/27/2019
Surr: 1,2-Dichloroethane-d4					<b>51.2</b>	50.00		102.5	79.6	118
Surr: 4-Bromofluorobenzene					<b>52.8</b>	50.00		105.5	83.9	115
Surr: Dibromofluoromethane					<b>51.9</b>	50.00		103.9	84.9	113
Surr: Toluene-d8					<b>52.3</b>	50.00		104.6	86.7	112

**Batch 156759 SampType: LCSD Units µg/L**

Batch	156759	SampType	LCSD	Units	µg/L	Date Analyzed				
SampID: LCSD-T190827A-1										Date Analyzed
Analyses		RL	Qual		Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD
Benzene		0.5			<b>50.4</b>	50.00	0	100.9	51.43	1.94
Ethylbenzene		2.0			<b>48.1</b>	50.00	0	96.2	49.02	1.85
Toluene		2.0			<b>52.5</b>	50.00	0	105.0	48.52	7.88
Xylenes, Total		4.0			<b>144</b>	150.0	0	96.2	147.7	2.37
Surr: 1,2-Dichloroethane-d4					<b>50.4</b>	50.00		100.7		08/27/2019
Surr: 4-Bromofluorobenzene					<b>49.6</b>	50.00		99.2		08/27/2019
Surr: Dibromofluoromethane					<b>51.3</b>	50.00		102.6		08/27/2019
Surr: Toluene-d8					<b>51.9</b>	50.00		103.7		08/27/2019

**Batch 156759 SampType: LCS Units µg/L**

Batch	156759	SampType	LCS	Units	µg/L	Date Analyzed				
SampID: LCS-T190827A-1										Date Analyzed
Analyses		RL	Qual		Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit
Benzene		0.5			<b>51.4</b>	50.00	0	102.9	75.8	121
Ethylbenzene		2.0			<b>49.0</b>	50.00	0	98.0	80.7	114
Toluene		2.0			<b>48.5</b>	50.00	0	97.0	78.3	112
Xylenes, Total		4.0			<b>148</b>	150.0	0	98.5	80.2	113
Surr: 1,2-Dichloroethane-d4					<b>49.9</b>	50.00		99.9	79.6	118
Surr: 4-Bromofluorobenzene					<b>49.4</b>	50.00		98.9	83.9	115
Surr: Dibromofluoromethane					<b>51.2</b>	50.00		102.4	84.9	113
Surr: Toluene-d8					<b>47.7</b>	50.00		95.5	86.7	112

## Receiving Check List

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19081552

**Client Project:** Champaign GW

**Report Date:** 29-Aug-2019

**Carrier:** Jacob Wilson

**Received By:** EEP

**Completed by:**

**On:**

22-Aug-2019



Amber M. Dilallo

**Reviewed by:**

**On:**

22-Aug-2019



Emily Pohlman

**Pages to follow:** Chain of custody

4

Extra pages included

0

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Temp °C <b>2.4</b>
Type of thermal preservation?	None <input type="checkbox"/>	Ice <input checked="" type="checkbox"/>	Blue Ice <input type="checkbox"/>	Dry Ice <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Reported field parameters measured:	Field <input type="checkbox"/>	Lab <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
<i>When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.</i>				
Water – at least one vial per sample has zero headspace?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	No VOA vials <input type="checkbox"/>	
Water - TOX containers have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No TOX containers <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>	
NPDES/CWA TCN interferences checked/treated in the field?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	

**Any No responses must be detailed below or on the COC.**

Additional Sodium Hydroxide (69997) was needed in UMW-106R-WG-20190820 upon arrival at the laboratory. - epohlman - 8/22/2019 4:56:08 PM

Headspace was present in the UMW-300-WG-20190819, UMW-307-WG-20190820 and TB-01-WQ-201908 volatile vials. Greg Moore was notified of this error via work order summary. - adilallo - 8/22/2019 5:04:12 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - ehurley - 8/29/2019 2:32:45 PM

## CHAIN OF CUSTODY

pg. 1 of 4 Work order # 19081552

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client:	ERM	Samples on: <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE 2.4 °C LTCB
Address:	2 CityPlace Drive, Suite 70	Preserved in: <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD FOR LAB USE ONLY
City / State / Zip	St. Louis, MO 63141	Lab Notes: added NaOH C2997 to UMW-106R-WG-20190820 UMW-11-WC-20190821-1 HCl vial damaged ECR in lab from SP120 8/22/19
Contact:	Greg Moore	Phone: (314) 238-6162
E-Mail:	greg.moore@erm.com	Fax: _____

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  NoAre these samples known to be hazardous?  Yes  NoAre there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  NoClient Comments  
Lower 0.0075 mg detection limit for PbUMW-300, UMW-307 & TB-0118 present. Ok Hg in all other vials  
Teklab, Inc.  
Sample Pick Up

Project Name/Number		Sample Collector's Name						MATRIX		INDICATE ANALYSIS REQUESTED												
Champaign GW		G. Moore						Groundwater	UNP	HNO3	NaOH	HCl	PAH 8270 SIM	Total 8 RCRA Metals	Total Cyanide 9012A							
Results Requested		Billing Instructions		# and Type of Containers																		
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> 1-2 Day (100% Surcharge)																					
<input type="checkbox"/> Other	<input type="checkbox"/> 3 Day (50% Surcharge)																					
Lab Use Only	Sample Identification	Date/Time Sampled		UNP	HNO3	NaOH	HCl															
001	UMW-102-WG-20190821	8/19/19, 1640		1	1	1	2					X	X	X	X							
002	UMW-105-WG-20190821	8/21/19, 1120		1	1	1	2					X	X	X	X							
003	UMW-106R-WG-20190820	8/20/19, 1900		1	1	1	2					X	X	X	X							
004	UMW-107R-WG-20190820	8/20/19, 1550		1	1	1	2					X	X	X	X							
005	UMW-108-WG-20190820	8/20/19, 1040		1	1	1	2					X	X	X	X							
006	UMW-109-WG-20190820	8/20/19, 0955		1	1	1	2					X	X	X	X							
007	UMW-111A-WG-20190820	8/20/19, 0915		1	1	1	2					X	X	X	X							
008	UMW-116-WG-20190820	8/20/19, 1615		1	1	1	2					X	X	X	X							
009	UMW-117-WG-20190820	8/20/19, 1445		1	1	1	2					X	X	X	X							
010	UMW-118-WG-20190820	8/20/19, 1120		1	1	1	2					X	X	X	X							
Relinquished By				Date/Time				Received By				Date/Time										
G. Moore (ERM)				8/22/19, 1410				S. J. S.				8/22/19, 1410										
				8/22/19, 1600				S. J. S.				8/22/19, 1600										

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See [www.teklabinc.com](http://www.teklabinc.com) for terms and conditions.

BottleOrder: 52647



# CHAIN OF CUSTODY

pg. 2 of 4 Work order # 19081552

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client:	ERM	Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C
Address:	2 CityPlace Drive, Suite 70	Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD
City / State / Zip	St. Louis, MO 63141	<b>FOR LAB USE ONLY</b>
Contact:	Greg Moore	Lab Notes:
E-Mail:	greg.moore@erm.com	
Fax:		

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No

Are these samples known to be hazardous?  Yes  No

Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section.  Yes  No

## Client Comments

Lower 0.0075 mg detection limit for Pb

Project Name/Number		Sample Collector's Name		MATRIX	INDICATE ANALYSIS REQUESTED												
Champaign GW		G. Moore				Total Cyanide 9012A	PAH 8270 SIM	BTEX 8260									
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		<b>Billing Instructions</b> <small>UNP HNO<sub>3</sub> NaOH HCl</small>		# and Type of Containers													
<b>Lab Use Only</b>		<b>Sample Identification</b>		<b>Date/Time Sampled</b>													
19081552 01	UMW-119-WG-20190819	8/19/19, 1820		1 1 1 2		X		X X X X									
01	UMW-120-WG20190819	8/19/19, 1700		1 1 1 2		X		X X X X									
013	UMW-121-WG-20190821	8/21/19, 1220		1 1 1 2		X		X X X X									
014	UMW-122-WG-20190820	8/20/19, 1745		1 1 1 2		X		X X X X									
015	UMW-123-WG-20190820	8/20/19, 1715		1 1 1 2		X		X X X X									
016	UMW-124-WG-20190821	8/21/19, 1440		1 1 1 2		X		X X X X									
017	UMW-125-WG-20190821	8/21/19, 0810		1 1 1 2		X		X X X X									
018	UMW-126-WG-20190821	8/21/19, 1415		1 1 1 2		X		X X X X									
019	UMW-127-WG-20190821	8/21/19, 1045		1 1 1 2		X		X X X X									
020	UMW-300-WG-20190819	8/19/19, 1830		1 1 1 2		X		X X X X									
<b>Relinquished By</b> <i>G. Moore (ERM)</i>		<b>Date/Time</b> <i>8/22/19, 1410</i>		<b>Received By</b> <i>S. M.</i>		<b>Date/Time</b> <i>8/22/19 1410</i>											

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See [www.teklabinc.com](http://www.teklabinc.com) for terms and conditions.

BottleOrder: 52647



# CHAIN OF CUSTODY

pg. 3 of 4 Work order # 19081552

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client:	ERM	Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C
Address:	2 CityPlace Drive, Suite 70	Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD
City / State / Zip	St. Louis, MO 63141	<b>FOR LAB USE ONLY</b>
Contact:	Greg Moore	Lab Notes:
E-Mail:	greg.moore@erm.com	Client Comments Lower 0.0075 mg detection limit for Pb
Phone:	(314) 238-6162	
Fax:		

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No

Are these samples known to be hazardous?  Yes  No

Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section.  Yes  No

Project Name/Number		Sample Collector's Name		MATRIX	INDICATE ANALYSIS REQUESTED															
Champaign GW		G. Moore				Total	Cyanide	8270	PAH	RCRA	Metals									
Results Requested		Billing Instructions		# and Type of Containers	Groundwater	BTEX	8270	SIM												
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)				UNP	HNO3	NaOH	HCl													
Lab Use Only	Sample Identification	Date/Time Sampled																		
01	UMW-301R-WG-20190821	8/21/19, 1150		1	1	1	2		X		X	X	X	X						
02	UMW-302-WG-20190821	8/21/19, 1300		1	1	1	2		X		X	X	X	X						
03	UMW-303-WG-20190820	8/20/19, 1430		1	1	1	2		X		X	X	X	X						
04	UMW-304R-WG-20190821	8/21/19, 0915		1	1	1	2		X		X	X	X	X						
05	UMW-305-WG-20190821	8/21/19, 0930		1	1	1	2		X		X	X	X	X						
06	UMW-306-WG-20190821	8/21/19, 0820		1	1	1	2		X		X	X	X	X						
07	UMW-307-WG-20190820	8/20/19, 1820		1	1	1	2		X		X	X	X	X						
08	UMW-308-WG-20190821	8/21/19, 1310		1	1	1	2		X		X	X	X	X						
09	DUP 001-WG-20190820	8/20/19		1	1	1	2		X		X	X	X	X						
10	DUP 002-WG-20190821	8/21/19		1	1	1	2		X		X	X	X	X						
Relinquished By		Date/Time			Received By				Date/Time											
<u>M. Moore (ERM)</u>		8/22/19, 1410			<u>John Doe</u>				8/22/19, 1410				<u>John Doe</u>				8/22/19, 1600			

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BottleOrder: 52647



## CHAIN OF CUSTODY

pg. 4 of 4 Work order # 19081552

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

<b>Client:</b> ERM <b>Address:</b> 2 CityPlace Drive, Suite 70 <b>City / State / Zip</b> St. Louis, MO 63141 <b>Contact:</b> Greg Moore <b>Phone:</b> (314) 238-6162 <b>E-Mail:</b> greg.moore@erm.com <b>Fax:</b>				Samples on: <input type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <u>  </u> °C Preserved in: <input type="checkbox"/> LAB <input type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes:</b> <b>Client Comments:</b> <i>Lower 0.0075 mg/L detection limit for Pb</i>																			
Are these samples known to be involved in litigation? If yes, a surcharge will apply <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are these samples known to be hazardous? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																							
Project Name/Number		Sample Collector's Name						MATRIX		INDICATE ANALYSIS REQUESTED													
Champaign GW		G. Moore						UNP	HNO <sub>3</sub>	NaOH	HCl	Groundwater	PAH 8270 SIM	BTEX 8260	Total 8 RCRA Metals	Total Cyanide 9012A							
Results Requested		Billing Instructions		# and Type of Containers																			
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> 1-2 Day (100% Surcharge)																						
<input type="checkbox"/> Other	<input type="checkbox"/> 3 Day (50% Surcharge)																						
Lab Use Only	Sample Identification	Date/Time Sampled																					
031	DUP 003-WG-20190821	8/21/19		1	1	1	2	X				X	X	X	X								
032	EB-01-WQ-20190821	8/21/19, 0855		1	1	1	2	X				X	X	X	X								
033	TB-01-WQ-201908	—					2	X				X											
034	MMMB- JMW-105-WG-20190821	8/21/19, 1120		2	1	1	4	X				X	X	X	X								
035	MMMB- JMW-101-WG-20190821	8/21/19, 1220		2	1	1	4	X				X	X	X	X								
	EXTRA SET 1	<del>8/21/19, 1220</del>		1	1	1	2	X				X	X	X	X								
	EXTRA SET 2	<del>8/21/19, 1220</del>		1	1	1	2	X				X	X	X	X								
Relinquished By			Date/Time			Received By			Date/Time														
G. Moore (ERM)			8/22/19, 1410			<i>[Signature]</i>			8/22/19, 1410														

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BottleOrder: 52647



October 04, 2019

Greg Moore  
ERM  
2 CityPlace Drive, Suite 70  
St. Louis, MO 63141  
TEL: (314) 238-6162  
FAX:



**RE:** Champaign GW

**WorkOrder:** 19100345

Dear Greg Moore:

TEKLAB, INC received 2 samples on 8/22/2019 4:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Project Manager  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Accreditations	5
Laboratory Results	6
Quality Control Results	8
Chain of Custody	Appended

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surrogate Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count ( > 200 CFU )

### Qualifiers

# - Unknown hydrocarbon

B - Analyte detected in associated Method Blank

C - RL shown is a Client Requested Quantitation Limit

E - Value above quantitation range

H - Holding times exceeded

I - Associated internal standard was outside method criteria

J - Analyte detected below quantitation limits

M - Manual Integration used to determine area response

ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

S - Spike Recovery outside recovery limits

T - TIC(Tentatively identified compound)

X - Value exceeds Maximum Contaminant Level



## Case Narrative

<http://www.teklabinc.com/>

**Client:** ERM

**Client Project:** Champaign GW

**Work Order:** 19100345

**Report Date:** 04-Oct-2019

**Cooler Receipt Temp:** °C

Re-analysis of WO#19081552.

### Locations

<b>Collinsville</b>	
<b>Address</b>	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
<b>Phone</b>	(618) 344-1004
<b>Fax</b>	(618) 344-1005
<b>Email</b>	jhriley@teklabinc.com

<b>Collinsville Air</b>	
<b>Address</b>	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
<b>Phone</b>	(618) 344-1004
<b>Fax</b>	(618) 344-1005
<b>Email</b>	EHurley@teklabinc.com

<b>Springfield</b>	
<b>Address</b>	3920 Pintail Dr Springfield, IL 62711-9415
<b>Phone</b>	(217) 698-1004
<b>Fax</b>	(217) 698-1005
<b>Email</b>	KKlostermann@teklabinc.com

<b>Chicago</b>	
<b>Address</b>	1319 Butterfield Rd. Downers Grove, IL 60515
<b>Phone</b>	(630) 324-6855
<b>Fax</b>	
<b>Email</b>	arenner@teklabinc.com

<b>Kansas City</b>	
<b>Address</b>	8421 Nieman Road Lenexa, KS 66214
<b>Phone</b>	(913) 541-1998
<b>Fax</b>	(913) 541-1998
<b>Email</b>	jhriley@teklabinc.com

## Accreditations

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

<b>State</b>	<b>Dept</b>	<b>Cert #</b>	<b>NELAP</b>	<b>Exp Date</b>	<b>Lab</b>
Illinois	IIEPA	100226	NELAP	1/31/2020	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2020	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2020	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2020	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2020	Collinsville
Arkansas	ADEQ	88-0966		3/14/2020	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Indiana	ISDH	C-IL-06		1/31/2020	Collinsville
Kentucky	KDEP	98006		12/31/2019	Collinsville
Kentucky	UST	0073		1/31/2020	Collinsville
Louisiana	LDPH	LA016		12/31/2019	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2019	Collinsville
Tennessee	TDEC	04905		1/31/2020	Collinsville

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

**Lab ID:** 19100345-001

**Client Sample ID:** UMW-124-WG-20190821

**Matrix:** GROUNDWATER

**Collection Date:** 08/21/2019 14:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5	H	105	µg/L	1	10/03/2019 11:38	157986
Ethylbenzene	NELAP	2.0	H	3.0	µg/L	1	10/03/2019 11:38	157986
Naphthalene	NELAP	5.0	H	ND	µg/L	1	10/03/2019 11:38	157986
Toluene	NELAP	2.0	H	ND	µg/L	1	10/03/2019 11:38	157986
Xylenes, Total	NELAP	4.0	H	ND	µg/L	1	10/03/2019 11:38	157986
Surr: 1,2-Dichloroethane-d4	*	79.6-118	H	96.7	%REC	1	10/03/2019 11:38	157986
Surr: 4-Bromofluorobenzene	*	83.9-115	H	98.9	%REC	1	10/03/2019 11:38	157986
Surr: Dibromofluoromethane	*	84.9-113	H	97.6	%REC	1	10/03/2019 11:38	157986
Surr: Toluene-d8	*	86.7-112	H	101.0	%REC	1	10/03/2019 11:38	157986

## Laboratory Results

<http://www.teklabinc.com/>

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

**Lab ID:** 19100345-002

**Client Sample ID:** UMW-126-WG-20190821

**Matrix:** GROUNDWATER

**Collection Date:** 08/21/2019 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
Benzene	NELAP	0.5	H	104	µg/L	1	10/03/2019 11:12	157986
Ethylbenzene	NELAP	2.0	H	13.8	µg/L	1	10/03/2019 11:12	157986
Naphthalene	NELAP	5.0	H	81.5	µg/L	1	10/03/2019 11:12	157986
Toluene	NELAP	2.0	H	75.2	µg/L	1	10/03/2019 11:12	157986
Xylenes, Total	NELAP	4.0	H	37.3	µg/L	1	10/03/2019 11:12	157986
Surr: 1,2-Dichloroethane-d4	*	79.6-118	H	95.9	%REC	1	10/03/2019 11:12	157986
Surr: 4-Bromofluorobenzene	*	83.9-115	H	97.3	%REC	1	10/03/2019 11:12	157986
Surr: Dibromofluoromethane	*	84.9-113	H	97.7	%REC	1	10/03/2019 11:12	157986
Surr: Toluene-d8	*	86.7-112	H	101.6	%REC	1	10/03/2019 11:12	157986

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

**SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene	0.5		<b>ND</b>							10/03/2019
Ethylbenzene	2.0		<b>ND</b>							10/03/2019
Naphthalene	5.0		<b>ND</b>							10/03/2019
Toluene	2.0		<b>ND</b>							10/03/2019
Xylenes, Total	4.0		<b>ND</b>							10/03/2019
Surr: 1,2-Dichloroethane-d4			<b>48.5</b>	50.00		97.0		79.6	118	10/03/2019
Surr: 4-Bromofluorobenzene			<b>49.3</b>	50.00		98.6		83.9	115	10/03/2019
Surr: Dibromofluoromethane			<b>48.6</b>	50.00		97.3		84.9	113	10/03/2019
Surr: Toluene-d8			<b>50.3</b>	50.00		100.6		86.7	112	10/03/2019

**Batch 157986 SampType: LCS Units µg/L**

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene	0.5		<b>46.1</b>	50.00	0	92.2		75.8	121	10/03/2019
Ethylbenzene	2.0		<b>48.2</b>	50.00	0	96.3		80.7	114	10/03/2019
Naphthalene	5.0		<b>48.1</b>	50.00	0	96.3		76.1	129	10/03/2019
Toluene	2.0		<b>47.9</b>	50.00	0	95.7		78.3	112	10/03/2019
Xylenes, Total	4.0		<b>145</b>	150.0	0	96.4		80.2	113	10/03/2019
Surr: 1,2-Dichloroethane-d4			<b>48.9</b>	50.00		97.8		79.6	118	10/03/2019
Surr: 4-Bromofluorobenzene			<b>49.2</b>	50.00		98.4		83.9	115	10/03/2019
Surr: Dibromofluoromethane			<b>49.4</b>	50.00		98.9		84.9	113	10/03/2019
Surr: Toluene-d8			<b>49.8</b>	50.00		99.6		86.7	112	10/03/2019

**Batch 157986 SampType: LCSD Units µg/L**

Analyses	RL	Qual	Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD	Date Analyzed
Benzene	0.5		<b>44.9</b>	50.00	0	89.7		46.12	2.75	10/03/2019	
Ethylbenzene	2.0		<b>47.8</b>	50.00	0	95.7		48.15	0.62	10/03/2019	
Naphthalene	5.0		<b>47.2</b>	50.00	0	94.5		48.14	1.89	10/03/2019	
Toluene	2.0		<b>47.1</b>	50.00	0	94.2		47.87	1.66	10/03/2019	
Xylenes, Total	4.0		<b>143</b>	150.0	0	95.5		144.6	0.95	10/03/2019	
Surr: 1,2-Dichloroethane-d4			<b>47.8</b>	50.00		95.6				10/03/2019	
Surr: 4-Bromofluorobenzene			<b>50.0</b>	50.00		99.9				10/03/2019	
Surr: Dibromofluoromethane			<b>49.2</b>	50.00		98.4				10/03/2019	
Surr: Toluene-d8			<b>50.7</b>	50.00		101.3				10/03/2019	

**Client:** ERM

**Work Order:** 19100345

**Client Project:** Champaign GW

**Report Date:** 04-Oct-2019

**SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Batch	157986	SampType	MS	Units	µg/L						Date Analyzed
SampID:	19100086-004AMS										
Analyses		RL	Qual		Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit
Benzene		5.0			<b>1020</b>	500.0	574.0	88.8		37	151
Ethylbenzene		20.0			<b>632</b>	500.0	149.6	96.4		37	162
Naphthalene		50.0			<b>470</b>	500.0	18.50	90.4		40	160
Toluene		20.0	E		<b>2100</b>	500.0	1689	81.4		47	150
Xylenes, Total		40.0			<b>2130</b>	1500	698.3	95.6		40	160
Surr: 1,2-Dichloroethane-d4					<b>468</b>	500.0		93.6		79.6	118
Surr: 4-Bromofluorobenzene					<b>495</b>	500.0		99.0		83.9	115
Surr: Dibromofluoromethane					<b>491</b>	500.0		98.2		84.9	113
Surr: Toluene-d8					<b>503</b>	500.0		100.5		86.7	112

Batch	157986	SampType	MSD	Units	µg/L						RPD Limit 61	Date Analyzed
SampID:	19100086-004AMSD											
Analyses		RL	Qual		Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD
Benzene		5.0			<b>1000</b>	500.0	574.0	85.6		1018	1.60	10/03/2019
Ethylbenzene		20.0			<b>618</b>	500.0	149.6	93.7		631.5	2.11	10/03/2019
Naphthalene		50.0			<b>484</b>	500.0	18.50	93.2		470.4	2.95	10/03/2019
Toluene		20.0	E		<b>2050</b>	500.0	1689	72.8		2096	2.08	10/03/2019
Xylenes, Total		40.0			<b>2090</b>	1500	698.3	92.5		2132	2.22	10/03/2019
Surr: 1,2-Dichloroethane-d4					<b>468</b>	500.0		93.7				10/03/2019
Surr: 4-Bromofluorobenzene					<b>492</b>	500.0		98.4				10/03/2019
Surr: Dibromofluoromethane					<b>491</b>	500.0		98.3				10/03/2019
Surr: Toluene-d8					<b>500</b>	500.0		100.1				10/03/2019

Batch	157986	SampType	MS	Units	mg/L						Date Analyzed
SampID:	19100132-001AMS										
Analyses		RL	Qual		Result	Spike	SPK	Ref Val	%REC	Low Limit	High Limit
Benzene		0.050			<b>4.65</b>	5.000	0	93.1		81.5	113
Surr: 1,2-Dichloroethane-d4					<b>4.78</b>	5.000		95.7		79.6	118
Surr: 4-Bromofluorobenzene					<b>4.95</b>	5.000		99.1		83.9	115
Surr: Dibromofluoromethane					<b>4.91</b>	5.000		98.2		84.9	113
Surr: Toluene-d8					<b>5.03</b>	5.000		100.5		86.7	112

Batch	157986	SampType	MSD	Units	mg/L						RPD Limit 20	Date Analyzed
SampID:	19100132-001AMSD											
Analyses		RL	Qual		Result	Spike	SPK	Ref Val	%REC	RPD	Ref Val	%RPD
Benzene		0.050			<b>4.58</b>	5.000	0	91.7		4.653	1.52	10/03/2019
Surr: 1,2-Dichloroethane-d4					<b>4.75</b>	5.000		95.0				10/03/2019
Surr: 4-Bromofluorobenzene					<b>4.87</b>	5.000		97.3				10/03/2019
Surr: Dibromofluoromethane					<b>4.87</b>	5.000		97.4				10/03/2019
Surr: Toluene-d8					<b>5.04</b>	5.000		100.8				10/03/2019

TEKLAB, INC  
5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
TEL: (618) 344-1004  
FAX: (618) 344-1005

# CHAIN-OF-CUSTODY RECORD

19100345  
Page 1 of 1

WorkOrder: 19100345

Client:

ERM  
2 CityPlace Drive, Suite 70  
St. Louis, MO 63141

TEL: (314) 682-3980

FAX:

Project: Champaign GW

04-Oct-2019

Sample ID	ClientSampID	Matrix	Date Collected	Bottle	Requested Tests							
					SW8260B							
19100345-001	UMW-124-WG-201908 21	Groundwater	8/21/2019 2:40:00 PM	A								
19100345-002	UMW-126-WG-201908 21	Groundwater	8/21/2019 2:15:00 PM	A								

Comments: send data in excel for all projects

Excel STD (Test Code Tabs) and ERM\_EQUIS EDD's required.

Email to: erm\_global@equisonline.com (Equis Files only) and all reports and EDD's to: edd@erm.com.

Lead CRQL <0.0075)

Per Greg Moore, additional analysis requested for WO #19081552. EAH 10/3/19

Date/Time	Date/Time
Relinquished by: _____	Received by: <u>D. Walla</u> 10/4/19 10:13
Relinquished by: _____	Received by: _____
Relinquished by: _____	Received by: _____

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

**Memo**

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**To** Lacy Smith

**From** Rachel James

**Date** 07 October 2019

**Reference** 0500957

**Subject** Revised Data Review of Ameren Champaign Groundwater Samples Third Quarter 2019: Teklab, Inc. Data Package 19081552R.

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The data quality was assessed and any necessary qualifiers were applied following the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017 and *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review*, January 2017.

**REVISION**

This memo was revised to include additional details about samples UMW-124-WG-20190821 and UMW-126-WG-20190821 in the field duplicate section.

ERM reviewed data for compliance with the following quality assurance/quality control (QA/QC) and method-prescribed criteria for Stage 2B review:

- **Holding Time and Sample Preservation:** The period of time between collection of the sample and preparation/analysis of the sample is evaluated. Analyses performed for this project have method-prescribed holding times as well as temperature and chemical preservation requirements.
- **Blank Samples:** The preparation and analysis of reagent (contaminant-free) water is evaluated. Blank samples for this investigation included method, trip, and equipment rinsates. Detections in a blank sample may indicate laboratory, transportation, or field contamination. All samples are evaluated for common laboratory contaminants during the blank evaluation.
- **Spike Samples:** The preparation and analysis of an environmental sample or a sample of reagent water spiked with a subset of target compounds at known concentrations is evaluated. The results of the spike analysis measure laboratory accuracy in the reagent sample, and results from the environmental sample spike measure potential interferences from the matrix.
- **Surrogate Spikes:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis is evaluated. Surrogate spikes measure possible interferences from the sample matrix for the analysis of target compounds.
- **Duplicate Samples:** The preparation and analysis of an additional aliquot of the sample is evaluated. The results from duplicate analysis measure potential heterogeneity of contaminants in the sample.

Stage 4 data review for 20 percent of the samples (6 samples: UMW-109-WG-20190820, UMW-124-WG-20190821, UMW-126-WG-20190821, UMW-127-WG-20190821, UMW-302-WG-20190821, and DUP 002-WG-20190821) was performed. The Stage 4 review included all of the QA/QC project and/or method-prescribed criteria for Stage 2B review plus:

- **Calibration:** The analysis of target analytes at a range of concentrations to develop a graphical plot of instrument response against the different analyte concentrations. An initial calibration curve establishes the graphical plot, and the continuing calibration verification monitors daily instrument linearity against the initial calibration.
- **Internal standards:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis. The internal standards are used to quantitatively and qualitatively evaluate retention time and response for each sample.
- **Recalculation:** Ten percent of the initial calibration, continuing calibration, internal response, surrogate percent recoveries (%R), laboratory control sample (LCS) %R, matrix spike/matrix spike duplicate (MS/MSD) %R, and all of the detected sample concentrations were recalculated.

The laboratory described that the chain of custody did not list a collection date and time for the trip blank sample. The laboratory logged the sample in with the date and time the sample was received.

#### ***HOLDING TIME AND PRESERVATION EVALUATION***

The samples were prepared and analyzed within the method-prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method-prescribed temperature preservation requirements of less than 6°C.

The pH was less than 12 for cyanide analysis in sample UMW-106R-WG-20190820 and the laboratory adjusted the pH with additional sodium hydroxide upon receipt. No qualifications were added to the cyanide result since the sample was preserved properly upon receipt. Additionally, headspace was present in the VOA vials for samples UMW-300-WG-20190819, UMW-307-WG-20190820, and TB-01-WQ-201908. VOC (volatile organic compounds) were non-detected in samples UMW-300-WG-20190819 and UMW-307-WG-20190820 and these results are consistent with the previous four quarters of sampling data. These results were qualified as estimated non-detects (UJ) based upon the headspace, but not rejected due to the agreement with historical results. VOCs were also non-detected in trip blank sample TB-01-WQ-201908 and the results were rejected (R) due to the headspace and lack of historical data for comparison. The samples with inadequate preservation are presented in Table 1.

#### ***BLANK EVALUATION***

The method blank sample results were nondetected for each of the target analytes. The blank results indicate that no contaminants were introduced to the samples during processing or analysis in the laboratory.

The equipment blank sample results were nondetected for each of the target analyte with two exceptions. Barium and naphthalene were detected in equipment blank sample EB-01-WQ-20190821 at concentrations above the reporting limits. Associated detected sample results that were greater than the blank concentration were qualified as estimates with a high bias (J+). The equipment blank detections and associated sample qualifications are listed in Table 2.

The trip blank sample results were nondetected for each of the target analytes. The trip blank sample results were rejected due to headspace. Therefore, the trip blank results cannot be used to evaluate whether or not contaminants were introduced to the samples during shipment, handling, and storage.

### **CALIBRATION EVALUATION**

Two types of calibration data were reviewed. These were initial calibration (ICAL) and continuing calibration verification (CCV/ICV). For linear ICALs, the correlation coefficient ( $r^2$ ) was within control limits and for average response factor ICALs, the relative standard deviations (RSDs) were within the control limits. The laboratory also calculated the relative response factors (RRFs) for the analytes in the ICAL. The reported percent relative standard deviations and RRFs were compared to the method-prescribed acceptance criteria and validation criteria during the data validation. The laboratory calculated the percent difference (%D) between CCV/ICV and the ICAL. The laboratory calculated the CCV/ICV RRFs. The %Ds and RRFs were then compared to the method-prescribed acceptance criteria and validation criteria during the data validation. The ICAL and CCV/ICV results were within acceptable limits for the samples.

### **BLANK SPIKE EVALUATION**

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries and RPDs were within the laboratory's limits of acceptance. The LCS recoveries and RPDs indicate acceptable laboratory accuracy and precision.

### **MATRIX SPIKE EVALUATION**

The matrix spike (MS)/matrix spike duplicate (MSD) recoveries were within the laboratory's limits of acceptance for project samples, with one exception. The RPD for cyanide was above the control limit in the MS/MSD samples prepared from UMW-301R-WG-20190821. The percent recoveries were within control limits for both the MS and MSD samples; therefore, the cyanide result in the parent sample was not qualified due to the RPD result alone. The matrix spike outlier is presented in Table 3.

### **SURROGATE SPIKE EVALUATION**

The surrogate recoveries were within acceptable limits with four exceptions. PAH (polynuclear aromatic hydrocarbon) surrogates 2-fluorobiphenyl and nitrobenzene-d5 were recovered below the control limits in sample UMW-302-WG-20190821 and its field duplicate sample DUP 003-WG-20190821; however the dilution factor was greater than 10 times and qualifications were not necessary. The surrogate outliers are presented in Table 4.

### **INTERNAL STANDARD EVALUATION**

The internal standard responses were within acceptable limits.

### **CALIBRATION RANGE EXCEEDANCES**

The cyanide results for MS/MSD samples prepared from UMW-105-WG-20190821 exceeded the instrument calibration range as noted in Table 5. Since the MS/MSD parent sample results are within calibration range, no qualifications were applied.

### **FIELD DUPLICATE EVALUATION**

Three samples were submitted in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. It was noted that the RPDs for naphthalene and ethylbenzene in sample pair UMW-124-WG-20190821/DUP 002-WG-20190821 were 189 and 131, respectively. The parent sample result (UMW-124-WG-20190821) was inconsistent with VOC and PAH historical data. A comparison of historical results for other project samples was performed and it was found that sample UMW-126-WG-20190821 was also inconsistent with VOC and PAH historical data. The raw data for all three samples (UMW-124-WG-20190821, DUP 002-WG-20190821, and UMW-126-WG-20190821) were reviewed and no problems were found with analyte identification, dilution factors, or result calculations. The laboratory was contacted and was able to locate leftover containers that could be used for confirmation (although the analyses were out of hold and the containers had not been kept cold). The reanalysis results confirmed the original results. Since no errors or problems were discovered with these original results, they are reported as-is. The RPDs for detected results are presented in Table 6.

### **RECALCULATION**

All result recalculations agreed with reported results.

### **OVERALL ASSESSMENT**

The non-detected VOC results in the trip blank sample were determined to be unusable due to headspace in the sample vial. With exception of the rejected results, all of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically-defensible documents.

**Table 1**  
**Samples with Exceeded Preservation Requirements**  
**Third Quarter 2019 Groundwater Monitoring**  
**Ameren**  
**Champaign, Illinois**

Lab Package	Sample ID	Method	Preservation Condition	Limits	ERM Qualifier
19081552	UMW-106R-WG-20190820	9012A	pH < 12	pH ≥ 12	--
	UMW-300-WG-20190819	8260B	Headspace	No headspace	UJ
	UMW-307-WG-20190820				UJ
	TB-01-WQ-201908				R

Lab package reviewed: 19081552

*Notes:*

*R = Result is rejected*

*UJ = Nondetected, estimated report limit*

**Table 2****Blank and Associated Suspect Sample Detections****Third Quarter 2019 Groundwater Monitoring****Ameren****Champaign, Illinois**

<b>Lab Package</b>	<b>Blank ID</b>	<b>Associated Sample</b>	<b>Detected Compound</b>	<b>Reported Concentration</b>	<b>Report Limit</b>	<b>Units</b>	<b>ERM Qualifier</b>
19081552	EB-01-WQ-20190821	See below	Barium	0.0056	0.0025	mg/L	--
		See below	Naphthalene	0.000401	0.000200	mg/L	--
	--	UMW-111A-WG-20190820	Barium	0.0506	0.0025	mg/L	J+
	--	UMW-120-WG-20190819		0.0337	0.0025	mg/L	J+
	--	UMW-122-WG-20190820		0.0450	0.0025	mg/L	J+
	--	UMW-123-WG-20190820		0.0217	0.0025	mg/L	J+
	--	UMW-124-WG-20190821		0.0495	0.0025	mg/L	J+
	--	UMW-125-WG-20190821		0.0219	0.0025	mg/L	J+
	--	UMW-126-WG-20190821		0.0303	0.0025	mg/L	J+
	--	UMW-303-WG-20190820		0.0408	0.0025	mg/L	J+
	--	DUP 002-WG-20190821		0.0310	0.0025	mg/L	J+
	--	UMW-124-WG-20190821	Naphthalene	0.00125	0.000200	mg/L	J+
	--	UMW-125-WG-20190821		0.000517	0.000200	mg/L	J+
	--	UMW-127-WG-20190821		0.00195	0.000200	mg/L	J+

Lab package reviewed: 19081552

**Notes:***EB = Equipment blank**J+ = Detected results are estimated with a high bias**mg/L = Milligrams per liter*

**Table 3**  
**Spike Recoveries Outside of Acceptable Limits**  
**Third Quarter 2019 Groundwater Monitoring**  
**Ameren**  
**Champaign, Illinois**

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	RPD	RPD Limit	Result	Units	ERM Qualifier
MS/MSD										
19081552	UMW-301R-WG-20190821 MS/MSD	UMW-301R-WG-20190821	Cyanide	80.8/106.2	75-125	27.23	15	--	--	--

Lab package reviewed: 19081552

*Notes:*

*MS/MSD = Matrix spike/matrix spike duplicate*

*RPD = Relative percent difference*

**Table 4****Surrogate Recovery Results out of Acceptable Limits****Third Quarter 2019 Groundwater Monitoring****Ameren****Champaign, Illinois**

<b>Lab Package</b>	<b>Sample ID</b>	<b>Method</b>	<b>Surrogate</b>	<b>Recovery (%)</b>	<b>Limit (%)</b>	<b>Affected Compound</b>	<b>Dilution Factor</b>	<b>ERM Qualifier</b>
19081552	UMW-302-WG-20190821	8270C	2-Fluorobiphenyl	0	21.4-142	--	2000	--
			Nitrobenzene-d5	0	15-163			
	DUP 003-WG-20190821	8270C	2-Fluorobiphenyl	0	21.4-142	--	1000	--
			Nitrobenzene-d5	0	15-163			

Lab package reviewed: 19081552

**Table 5**  
**Calibration Range Exceedances**  
**Third Quarter 2019 Groundwater Monitoring**  
**Ameren**  
**Champaign, Illinois**

Lab Package	Sample ID	Compound	Reported Concentration	Units	ERM Qualifier
19081552	UMW-105-WG-20190821 MS	Cyanide	0.069	mg/L	--
	UMW-105-WG-20190821 MSD		0.066	mg/L	--

Lab package reviewed: 19081552

*Notes:*

*mg/L = Milligrams per liter*

*MS = Matrix spike*

*MSD = Matrix spike duplicate*

**Table 6**  
**Field Duplicate Results and Calculated Relative Percent Differences**  
**Third Quarter 2019 Groundwater Monitoring**  
**Ameren**  
**Champaign, Illinois**

Lab Package	Primary/Duplicate Sample ID	Compound	Concentration		Report Limit		Units	RPD
			Sample	Duplicate	Sample	Duplicate		
10981552	UMW-107R-WG-20190820/ DUP 001-WG-20190820	Cyanide	0.409	0.409	0.050	0.050	mg/L	0.0
		Barium	0.148	0.139	0.0025	0.0025	mg/L	6.3
		Benzene	ND	0.6	0.5	0.5	µg/L	NC
	UMW-124-WG-20190821/ DUP 002-WG-20190821	Cyanide	ND	0.012	0.005	0.005	mg/L	NC
		Barium	0.0495	0.0310	0.0025	0.0025	mg/L	46
		Acenaphthene	ND	0.000471	0.000100	0.000100	mg/L	NC
		Acenaphthylene	ND	0.000311	0.000100	0.000100	mg/L	NC
		Fluorene	ND	0.000167	0.000100	0.000100	mg/L	NC
		Naphthalene	0.00125	0.0436	0.0200	0.00500	mg/L	189
		Benzene	104	116	0.5	0.5	µg/L	10.9
		Ethylbenzene	2.9	13.8	2.0	2.0	µg/L	131
		Toluene	ND	76.7	2.0	2.0	µg/L	NC
	UMW-302-WG-20190821/ DUP 003-WG-20190821	Xylenes, Total	ND	38.6	4.0	4.0	µg/L	NC
		Cyanide	0.152	0.146	0.025	0.025	mg/L	4.0
		Barium	0.0608	0.0603	0.0025	0.0025	mg/L	0.83
		Acenaphthene	0.000467	0.000358	0.000100	0.000100	mg/L	26
		Acenaphthylene	0.000498	0.000370	0.000100	0.000100	mg/L	29
		Naphthalene	1.68	1.14	0.400	0.200	mg/L	38
		Benzene	188	215	10.0	10.0	µg/L	13
		Ethylbenzene	697	741	40.0	40.0	µg/L	6.1
		Toluene	ND	7.5	40.0	2.0	µg/L	NC
		Xylenes, Total	179	228	80.0	4.0	µg/L	24

Lab package reviewed: 19081552

**Notes:**

*mg/L* = Milligrams per liter

*ND* = Not detected

*NC* = Not calculated, one result not detected

*RPD* = Relative percent difference

*µg/L* = Micrograms per liter