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June 14, 2019

Ms. Regan Rahn  
 Project Manager  
 Bureau of Land and Waste Management  
 S.C. Department of Health and Environmental Control (SCDHEC)  
 2600 Bull Street  
 Columbia, SC 29201

Re: Itron Site (Greenwood, SC) ((RPVCC #13-6078-RP)  
 Revised Feasibility Study (FS) Report - June 2019  
 Groundwater Monitoring Report, May 2019

Dear Ms. Rahn:

As discussed and agreed upon during the February 19, 2019 meeting with you and your team (Mr. Lucas Berresford, Mr. Greg Cassidy, and Ms. Carol Crooks), Itron's contractor AECOM completed the groundwater monitoring of all existing groundwater monitoring wells at the site. In addition, the Feasibility Study (FS) Report was revised in accordance with the conclusions of the February 19, 2019 meeting. Two (2) hard copies of the groundwater monitoring report and two (2) hard copies of the revised Feasibility Study (FS) Report is enclosed with this letter.

If you have any question, do not hesitate to contact me at 510-844-2882 or email me at [Pad.Kemmanahalli@itron.com](mailto:Pad.Kemmanahalli@itron.com)

Sincerely,

Pad Kemmanahalli  
 Corporate Senior Director, Global HSE & Sustainability

**Enclosures:**

1. Revised Feasibility Study (FS) Report, June 2019
2. April 2019 Groundwater Monitoring Report, May 2019

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**AECOM**

**Environment**

Submitted to  
Itron, Inc.

Submitted by  
AECOM  
Greenville, SC  
Project No. 60601469

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**SITE ASSESSMENT,  
REMEDICATION &  
REVITALIZATION**

# Groundwater Monitoring Report April 2019

Itron, Inc.  
RPVCC 13-6078 RP  
1310 Emerald Road  
Greenwood, South Carolina

May 28, 2019

Prepared for:



May 28, 2019

Mr. Pad Kemmanahalli  
Corporate Senior Director,  
Global HSE & Sustainability  
Itron, Inc.  
1111 Broadway, Suite 1800  
Oakland, CA 94607

**Subject: Groundwater Monitoring Report – April 2019  
Itron, Inc., 1310 Emerald Road – Greenwood, SC  
AECOM Project No. 60601469**

Dear Mr. Kemmanahalli:

AECOM Technical Services, Inc. (AECOM) has prepared this letter report describing field activities and findings associated with the latest groundwater monitoring event for the Itron, Inc. facility (site) conducted April 9-11, 2019. The site is located at 1310 Emerald Road in Greenwood, South Carolina. A letter received by Itron from the South Carolina Department of Health and Environmental Control (SCDHEC), dated November 20, 2018, requested a full round of groundwater sampling be conducted at the site.

AECOM completed this report in a reasonable and prudent manner within the customary standards of care and diligence practiced by firms that conduct services of a similar nature. As with any data report, this report provides a “snapshot” of subsurface conditions that were observed during the time period identified herein.

### **Monitoring Event Activities**

AECOM personnel measured water levels on April 9, 2019 in monitoring wells MW-1 through MW-21, MW-23, MW-10R, MW-15R, MW-10I, MW-5D, MW-9D, MW-10D, MW-16D and MW-22D prior to collecting groundwater samples for laboratory analysis. A water level meter (accuracy of +/- 0.01 feet) was used to measure the depth to water from the top of the casings. The meter was decontaminated prior to and between each water level measurement to prevent the potential for cross-contamination between wells. The monitoring well locations are shown on **Figure 1**. Groundwater monitoring well construction details and elevations are included in **Table 1** and groundwater contour maps are included as **Figures 2, 3 and 4**.

In preparing for sampling, all wells were purged following low-flow/minimal drawdown sampling procedures. A low-flow submersible pump, which was properly decontaminated between sampling locations, was fitted with clean polyethylene tubing for each well. The pump discharged to an in-line water quality meter with a closed flow-through cell and AECOM personnel recorded pH, conductivity, turbidity, dissolved oxygen (DO), oxidation reduction potential (ORP) and temperature. Field data sheets with this information are included in **Appendix A**. Once the parameters stabilized, groundwater samples were collected in laboratory supplied containers, labeled and stored in a chilled sample cooler on wet ice. The groundwater samples were picked up on site April 10 and 11, 2019 by a courier with Shealy Environmental Services, Inc. of West Columbia, South Carolina (a SCDHEC certified analytical

laboratory, state certification number 32010001). All samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) per Environmental Protection Agency (EPA) Method 8260B plus nitrate and sulfate per EPA Method 9056A.

### **Groundwater Analytical Results**

For this monitoring event, groundwater samples were collected from monitoring wells MW-1 through MW-9, MW-10R, MW-11 through MW-14, MW-15R, MW-16 through MW-21, MW-23, MW-10I, MW-5D, MW-9D, MW-10D, MW-16D and MW-22D. Analytical results are summarized in **Table 2** and on **Figures 5, 6 and 7**. Groundwater results on the figures are broken out into the upper, intermediate and lower portions of the regolith. The analytical laboratory reports are included in **Appendix B**.

#### **Upper Regolith:**

- Concentrations of tetrachloroethene (PCE) exceeding the EPA Maximum Contaminant Level (MCL) of 5 micrograms per liter ( $\mu\text{g/l}$ ) were detected in wells MW-2 (5.2  $\mu\text{g/l}$ ), MW-3 (63  $\mu\text{g/l}$ ), MW-4 (14  $\mu\text{g/l}$ ), MW-5 (2,700  $\mu\text{g/l}$ ), MW-6 (4,300  $\mu\text{g/l}$ ), MW-7 (95,000  $\mu\text{g/l}$ ), MW-8 (18,000  $\mu\text{g/l}$ ), MW-9 (7.2  $\mu\text{g/l}$ ), MW-10R (6,000  $\mu\text{g/l}$ ), MW-14 (150  $\mu\text{g/l}$ ), MW-16 (780  $\mu\text{g/l}$ ) and MW-17 (190  $\mu\text{g/l}$ ). Also, the concentration of benzene in MW-3 (7.5  $\mu\text{g/l}$ ) exceeded the MCL of 5  $\mu\text{g/l}$ .

#### **Intermediate Regolith:**

- Concentrations of PCE exceeding the MCL were detected in wells MW-10I, (14,000  $\mu\text{g/l}$ ), MW-12 (4,400  $\mu\text{g/l}$ ), and MW-20 (450  $\mu\text{g/l}$ ).

#### **Lower Regolith:**

- Concentrations of PCE exceeding the MCL were detected in wells MW-5D (21  $\mu\text{g/l}$ ), MW-9D (15  $\mu\text{g/l}$ ) and MW-16D (18  $\mu\text{g/l}$ ). Also, the concentration of cis-1,2-dichloroethene (cDCE) in MW-5D (170  $\mu\text{g/l}$ ) exceeded the MCL of 70  $\mu\text{g/l}$ .

### **Natural Attenuation Parameters**

The natural attenuation parameters of DO, ORP, sulfate and nitrate were collected to determine if conditions across the site are favorable for processes such as biodegradation or dechlorination to occur. DO and ORP were collected by taking readings from a YSI 556 water quality meter and groundwater samples were collected for the laboratory analysis of nitrate and sulfate.

- DO levels generally need to be at or below 0.5 milligrams per liter (mg/L) for biodegradation or reductive dechlorination to occur. Readings during this recent sampling event ranged between 0.50 mg/L and 7.68 mg/L. The average DO level for all 28 wells sampled was 4.89 mg/L.
- ORP generally needs to be a negative number for biodegradation or dechlorination to occur. Readings during this recent sampling event ranged between -74.9 millivolts (mV) and 317 mV. Of the 28 monitoring wells sampled, only one (MW-5D) had a negative ORP reading. The average ORP reading for all 28 wells sampled was 165.21 mV.

- Sulfate at a concentration greater than 20 mg/l may interfere with reductive dechlorination, both biological and chemical. Sulfate was detected at less than 20 mg/l in all wells sampled, ranging between <1.0 and 12 mg/l. The average sulfate level for all 28 wells sampled was 1.67 mg/L.
- Nitrate at a concentration greater than 1.0 mg/l may interfere with reductive dechlorination, both biological and chemical. Nitrate was detected in all wells sampled with concentrations ranging between <0.020 and 2.6 mg/l, with the concentration being greater than 1.0 mg/l in 8 of the 28 wells sampled. The average nitrate level for all 28 wells sampled was 0.87 mg/L.

Overall, the measured natural attenuation parameters indicate mixed results as to whether natural attenuation processes are occurring or if various remedial alternatives could help activate or achieve these processes at the site. DO and ORP levels show that biodegradation and dechlorination, in general, are not occurring. The one exception is at well MW-5D, which had a negative ORP reading during this most recent sampling event, in addition to a significant concentration of cDCE (170 µg/l), a daughter/breakdown product of PCE.

On the other hand, sulfate and nitrate concentrations across the site would indicate a geochemical environment that, for the most part, would not interfere with reductive dechlorination, both biological and chemical. However, this assertion is difficult to support, given the high concentrations of PCE detected across the site.

Taking into consideration both the measured natural attenuation parameters and the analytical laboratory data, it appears at this point in time, mainly due to a lack of daughter/breakdown products of PCE that natural attenuation is not occurring at the site.

### **Investigative Derived Waste**

Three drums of liquid Investigative Derived Waste (IDW) were generated during the purging of the site monitoring wells. The drums are scheduled to be removed from the site in June 2019 by Chemcare of Charlotte, North Carolina and disposed of offsite at a permitted disposal facility as hazardous waste. A waste manifest, signed by Itron personnel, will be provided to SCDHEC under separate cover.

Sincerely,

**AECOM Technical Services, Inc.**



Aaron S. Council, STS  
Project Manager  
[aaron.council@aecom.com](mailto:aaron.council@aecom.com)



Ronald Paulling, PG  
Senior Geologist  
[ron.paulling@aecom.com](mailto:ron.paulling@aecom.com)



## **Tables**

- 1 Groundwater Monitoring Well Construction Details and Elevations
- 2 Groundwater Analytical Results

## **Figures**

- 1 Monitoring Well Location Map
- 2 Potentiometric Surface Map (Upper Regolith) – April 2019
- 3 Potentiometric Surface Map (Intermediate Regolith) – April 2019
- 4 Potentiometric Surface Map (Lower Regolith) – April 2019
- 5 Distribution of COCs in Upper Regolith – Groundwater (April 2019)
- 6 Distribution of COCs in Intermediate Regolith – Groundwater (April 2019)
- 7 Distribution of COCs in Lower Regolith – Groundwater (April 2019)

## **Appendices**

- A Field Data Sheets
- B Analytical Laboratory Reports

## **TABLES**

**Table 1**  
**Groundwater Monitoring Well Construction Details and Elevations**  
**Current (April 2019) and Historical**

Itron, Inc.  
Greenwood, South Carolina

Monitoring Well	Well Diameter	Depth of Well	Screen Length	Screen Interval	Top of Well Casing Elevation	4/9/2019		2/7/2017		7/28/2015		6/4/2014		8/23/2012		4/19/2012	
						Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
						feet below toc	feet above msl	feet below toc	feet above msl	feet below toc	feet above msl	feet below toc	feet above msl	feet below toc	feet above msl	feet below toc	feet above msl
MW-1	2	31.5	10	21.5 - 31.5	557.74	21.11	536.63	24.43	533.31	22.89	534.85	22.08	535.66	26.88	530.86	26.06	531.68
MW-2	2	34.8	10	24.8 - 34.8	562.30	27.73	534.57	31.07	531.23	29.49	532.81	28.63	533.67	33.42	528.88	32.62	529.68
MW-3	2	47.0	10	37.0 - 47.0	561.84	27.05	534.79	30.13	531.71	27.50	534.34	27.80	534.04	32.43	529.41	34.23	527.61
MW-4	2	46.8	10	36.8 - 46.8	558.86	27.35	531.51	30.43	528.43	30.14	528.72	27.90	530.96	30.50	524.63	28.93	526.20
MW-5	2	47.9	10	37.9 - 47.9	552.86	24.93	527.93	29.63	523.23	28.34	524.52	25.99	526.87	29.12	520.00	27.11	522.01
MW-6	2	38.0	10	28.0 - 38.0	559.43	23.88	535.55	27.19	532.24	25.56	533.87	25.33	534.10	29.45	529.98	28.52	530.91
MW-7	2	37.4	10	27.4 - 37.4	560.33	25.48	534.85	27.74	532.59	26.02	534.31	26.12	534.21	29.89	530.44	28.96	531.37
MW-8	2	55.6	10	45.6 - 55.6	557.19	25.03	532.16	28.99	528.20	27.41	528.78	25.18	532.01	31.94	525.25	30.37	526.82
MW-9	2	52.3	10	42.3 - 52.3	553.65	31.15	522.50	35.62	518.03	33.99	519.66	33.35	520.30	39.51	514.14	39.10	514.55
MW-10	1	35.1	5	30.1 - 35.1	551.07	23.60	527.47	26.11	524.96	25.28	525.79	22.59	528.48	30.60	520.47	27.56	523.51
MW-10R	2	35.1	10	25.1 - 35.1	551.03	23.05	527.98	28.50	522.53	25.55	525.48	--	--	--	--	--	--
MW-11	2	40.4	10	30.4 - 40.4	560.17	23.82	536.35	27.35	532.82	26.05	534.12	25.19	534.98	29.82	530.35	28.23	531.94
MW-12	2	68.3	10	58.3 - 68.3	565.93	35.68	530.25	39.11	526.82	38.19	527.74	36.50	529.43	--	--	--	--
MW-13	2	40.0	10	30.0 - 40.0	550.17	28.85	521.32	33.83	516.34	32.19	517.98	31.65	518.52	--	--	--	--
MW-14	2	46.0	10	36.0 - 46.0	549.95	20.12	529.83	24.77	525.18	22.25	527.70	20.43	529.52	--	--	--	--
MW-15	2	38.0	10	28.0 - 38.0	557.20	34.18	523.02	38.85	518.35	37.50	519.70	36.76	520.44	--	--	--	--
MW-15R	2	49.5	10	39.5 - 49.5	556.96	33.86	523.10	38.54	518.42	37.28	519.68	--	--	--	--	--	--
MW-16	2	36.3	10	26.3 - 36.3	556.51	22.57	533.94	25.19	531.32	24.44	532.07	22.79	533.72	--	--	--	--
MW-17	2	45.3	15	35.3 - 45.3	561.75	26.10	535.65	29.02	532.73	27.29	534.46	27.62	534.13	--	--	--	--
MW-18	2	39.0	10	29.0 - 39.0	556.76	18.50	538.26	21.09	535.67	21.15	535.61	20.49	536.27	--	--	--	--
MW-19	2	49.2	10	39.2 - 49.2	548.37	23.11	525.26	28.22	520.15	27.76	520.61	--	--	--	--	--	--
MW-20	2	59.0	10	49.0 - 59.0	545.47	23.47	522.00	28.64	516.83	28.02	517.45	--	--	--	--	--	--
MW-21	2	42.5	10	32.5 - 42.5	548.80	13.24	535.56	16.97	531.83	17.32	531.48	--	--	--	--	--	--
MW-10I	2	57.9	10	47.9 - 57.9	551.10	22.02	529.08	26.75	524.35	24.32	526.78	--	--	--	--	--	--
MW-5D	2	74.0	5	69.0 - 74.0	554.14	26.19	527.95	30.89	523.25	29.56	524.58	27.21	526.93	--	--	--	--
MW-9D	2	76.5	5	71.5 - 76.5	553.77	30.94	522.83	33.02	520.75	33.56	520.21	32.88	520.89	--	--	--	--
MW-10D	2	76.0	5	71.0 - 76.0	550.85	24.25	526.60	27.52	523.33	26.60	524.25	24.93	525.92	--	--	--	--
MW-16D	2	75.8	5	70.8 - 75.8	556.78	26.31	530.47	31.38	525.40	28.96	527.82	26.30	530.48	--	--	--	--
MW-22D	2	79.0	5	74.0 - 79.0	549.27	27.88	521.39	33.39	515.88	32.27	517.00	--	--	--	--	--	--
MW-23	2	60	10	50.0 - 60.0	542.75	20.13	522.62	26.40	516.35	32.27	517.00	--	--	--	--	--	--

**Notes:**

1. bgs = below ground surface
2. msl = mean sea level
3. toc = top of casing
4. -- Well was not installed at time of gauging event.



**Table 2  
Groundwater Analytical Results  
Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells																					
			MW-1					MW-2					MW-3					MW-4						
			4/19/2012	8/23/2012	6/5/2014	7/28/2015	2/7/2017	4/10/2019	4/19/2012	8/23/2012	6/4/2014	7/28/2015	2/7/2017	4/9/2019	4/19/2012	8/23/2012	6/4/2014	7/29/2015	4/10/2019	4/19/2012	8/23/2012	6/5/2014	7/29/2015	4/10/2019
<b>Volatile Organic Compounds (EPA Method 8260)</b>																								
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzene	5	5	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<b>8.2</b>	<5.0	<5.0	<b>0.54 J</b>	<5.0	<1.0	<b>12</b>	<b>15.1</b>	<b>17 J</b>	<b>10 J</b>	<b>7.5</b>	<5.0	<5.0	<5.0	<5.0	<1.0
Bromodichloromethane	80	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<10.0	<25.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
2-Butanone (MEK)	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<b>30</b>	<20.0	<b>33 J</b>	<50.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloroform	80	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<10.0	<25.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,2-Dichloroethane	5	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<b>1.2 J</b>	<b>1.2 J</b>	<5.0	<1.0	<5.0	<10.0	<25.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene	70	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<b>280</b>	<b>389</b>	<b>440</b>	<b>280</b>	<b>230</b>	<5.0	<5.0	<b>0.39 J</b>	<b>0.23 J</b>	<1.0	
1,2-Dichloropropane	5	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<b>11</b>	<5.0	<5.0	<1.0	<5.0	<10.0	<25.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Ethylbenzene	700	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<b>11</b>	<10.0	<b>16 J</b>	<b>6.9 J</b>	<b>14</b>	<5.0	<5.0	<5.0	<5.0	<1.0
2-Hexanone	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<b>11</b>	<20.0	<b>10 J</b>	<b>4.6 J</b>	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	NSL	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<b>0.52 J</b>	<5.0	<b>1.7</b>	<b>9.5</b>	<b>19.5</b>	<b>26</b>	<b>17 J</b>	<b>19</b>	<5.0	<5.0	<5.0	<5.0	<1.0
4-Methyl-2-pentanone	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<b>10</b>	<20.0	<b>6.9 J</b>	<b>2.6 J</b>	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylcyclohexane	NSL	NSL	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<b>5.1 J</b>	<b>4.5 J</b>	<b>3.2 J</b>	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	NSL	<5.0	<5.0	<b>0.80 J</b>	<b>7.7</b>	<5.0	<b>0.42 J</b>	<5.0	<5.0	<b>0.86 J</b>	<b>1.1 J</b>	<5.0	<b>5.2</b>	<b>50</b>	<10.0	<b>21 J</b>	<b>13 J</b>	<b>63</b>	<5.0	<5.0	<b>2.4 J</b>	<b>3.0 J</b>	<b>14</b>
Trichloroethene	5	NSL	<5.0	<5.0	<5.0	<5.0	<b>14</b>	<1.0	<5.0	<5.0	<5.0	<5.0	<b>17</b>	<1.0	<b>43</b>	<10.0	<25.0	<b>0.81 J</b>	<b>2.5 J</b>	<b>5.8</b>	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride	2	NSL	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<4.0	<10.0	<10.0	<5.0	<2.0	<2.0	<b>0.42 J</b>	<2.0	<b>0.42 J</b>
Xylenes (total)	10,000	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<b>10</b>	<5.0	<5.0	<b>3.4 J</b>	<5.0	<b>15</b>	<b>41</b>	<b>41.5</b>	<b>110</b>	<b>56</b>	<b>91</b>	<5.0	<5.0	<5.0	<5.0	<1.0
<b>Nitrate (EPA Method 9056A)</b>																								
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Nitrate	10	NSL	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	2.6	NA	NA	NA	NA	NA	<0.020	NA	NA	NA	<0.020
<b>Sulfate (EPA Method 9056A)</b>																								
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Sulfate	250	NSL	NA	NA	NA	NA	NA	0.35 J	NA	NA	NA	NA	NA	0.41 J	NA	NA	NA	NA	NA	4.7	NA	NA	NA	2.2
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																								
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzo(a)anthracene	NSL	10	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.042 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Benzo(a)pyrene	0.20	NSL	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.050 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Benzo(b)fluoranthene	NSL	10	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.11 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Chrysene	NSL	10	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.077 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Fluoranthene	NSL	NSL	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.15 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Fluorene	NSL	NSL	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.063 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<b>0.028 J</b>	NA	NA
Naphthalene	NSL	25	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>1.1</b>	NA	NA	NA	NA	NA	<b>200</b>	<b>190</b>	NA	NA	NA	<b>0.14 J</b>	NA	NA
Phenanthrene	NSL	NSL	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.15 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA
Pyrene	NSL	NSL	NA	NA	<0.20	NA	NA	NA	NA	NA	<b>0.13 J</b>	NA	NA	NA	NA	NA	<100	<40.0	NA	NA	NA	<0.20	NA	NA

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**Table 2  
Groundwater Analytical Results  
Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells																				
			MW-5					MW-5D				MW-6					MW-7						
			4/19/2012	8/23/2012	6/5/2014	7/29/2015	4/10/2019	6/5/2014	7/28/2015	2/8/2017	4/10/2019	4/19/2012	8/23/2012	6/4/2014	7/29/2015	2/7/2017	4/10/2019	4/20/2012	8/23/2012	6/4/2014	7/29/2015	2/8/2017	4/10/2019
<b>Volatile Organic Compounds (EPA Method 8260)</b>																							
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
Benzene	5	5	<100	<200	<250	<250	<50.0	<5.0	<b>0.27 J</b>	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<2,000
Bromodichloromethane	80	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
2-Butanone (MEK)	NSL	NSL	<200	<400	<500	<500	<50.0	<10.0	<10.0	<10.0	<10.0	<2,000	<1,000	<2,000	<2,000	<1,000	<1,000	<1,000	<8,000	<10,000	<20,000	<10,000	<20,000
Chloroform	80	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
1,2-Dichloroethane	5	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
cis-1,2-Dichloroethene	70	NSL	<100	<200	<b>46 J</b>	<b>15 J</b>	<50.0	<5.0	<b>130</b>	<b>88</b>	<b>170</b>	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
1,2-Dichloropropane	5	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
Ethylbenzene	700	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
2-Hexanone	NSL	NSL	<200	<400	<500	<500	<50.0	<10.0	<10.0	<10.0	<10.0	<2,000	<1,000	<2,000	<2,000	<1,000	<1,000	<1,000	<8,000	<10,000	<20,000	<10,000	<20,000
Isopropylbenzene	NSL	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
4-Methyl-2-pentanone	NSL	NSL	<100	<400	<500	<500	<50.0	<10.0	<10.0	<10.0	<10.0	<2,000	<1,000	<2,000	<2,000	<1,000	<1,000	<1,000	<8,000	<10,000	<20,000	<10,000	<20,000
Methylcyclohexane	NSL	NSL	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
Tetrachloroethene	5	NSL	<b>3,900</b>	<b>4,290</b>	<b>3,700</b>	<b>4,000</b>	<b>2700</b>	<b>190</b>	<b>0.96 J</b>	<5.0	<b>21</b>	<b>12,000</b>	<b>14,400</b>	<b>14,000</b>	<b>9,600</b>	<b>8,700</b>	<b>4,300</b>	<b>7,000</b>	<b>56,900</b>	<b>97,000</b>	<b>100,000</b>	<b>91,000</b>	<b>95,000</b>
Trichloroethene	5	NSL	<100	<200	<b>15 J</b>	<b>10 J</b>	<50.0	<b>0.56 J</b>	<b>0.22 J</b>	<5.0	<b>2.4</b>	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
Vinyl Chloride	2	NSL	<40.0	<80.0	<b>38 J</b>	<100	<50.0	<2.0	<2.0	<2.0	<1.0	<400	<200	<400	<400	<200	<100	<200	<1,600	<2,000	<4,000	<2,000	<2,000
Xylenes (total)	10,000	10,000	<100	<200	<250	<250	<50.0	<5.0	<5.0	<5.0	<1.0	<1,000	<500	<1,000	<1,000	<500	<100	<500	<4,000	<5,000	<10,000	<5,000	<2,000
<b>Nitrate (EPA Method 352.1)</b>																							
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Nitrate	10	NSL	NA	NA	NA	NA	2.0	NA	NA	NA	<0.020	NA	NA	NA	NA	NA	0.38	NA	NA	NA	NA	1.3	
<b>Sulfate (EPA Method 375.2)</b>																							
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Sulfate	250	NSL	NA	NA	NA	NA	2.8	NA	NA	NA	0.49 J	NA	NA	NA	NA	NA	0.20 J	NA	NA	NA	NA	0.32 J	
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																							
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
Benzo(a)anthracene	NSL	10	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	0.20	NSL	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	NSL	10	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	NSL	10	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	NSL	NSL	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	NSL	NSL	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	NSL	25	NA	NA	<0.20	NA	NA	<b>0.10 J</b>	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	NSL	NSL	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	NSL	NSL	NA	NA	<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	

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**Table 2  
Groundwater Analytical Results  
Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells																	
			MW-8					MW-9					MW-9D				MW-10			
			4/19/2012	8/23/2012	6/4/2014	7/29/2015	4/9/2019	4/19/2012	8/23/2012	6/4/2014	7/28/2015	2/8/2017	4/9/2019	6/4/2014	7/28/2015	4/9/2019	4/19/2012	8/23/2012	6/4/2014	
<b>Volatile Organic Compounds (EPA Method 8260)</b>																				
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
Benzene	5	5	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
Bromodichloromethane	80	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
2-Butanone (MEK)	NSL	NSL	<4,000	<2,000	<5000	<5000	<5000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1,000	<1,000	<10.0		
Chloroform	80	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<b>1.8 J</b>	<5.0	<1.0	<500	<500	<5.0		
1,2-Dichloroethane	5	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
cis-1,2-Dichloroethene	70	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<b>0.26 J</b>	<5.0	<1.0	<500	<500	<b>0.46 J</b>		
1,2-Dichloropropane	5	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
Ethylbenzene	700	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
2-Hexanone	NSL	NSL	<4,000	<2,000	<5000	<5000	<5000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1,000	<1,000	<10.0		
Isopropylbenzene	NSL	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
4-Methyl-2-pentanone	NSL	NSL	<4,000	<2,000	<5000	<5000	<5000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1,000	<1,000	<10.0		
Methylcyclohexane	NSL	NSL	<2,000	<1,000	<2500	<2500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
Tetrachloroethene	5	NSL	<b>19,000</b>	<b>25,200</b>	<b>21,000</b>	<b>20,000</b>	<b>18,000</b>	<b>10</b>	<5.0	<b>1.4 J</b>	<b>1.8 J</b>	<5.0	<b>7.2</b>	<5.0	<b>0.73 J</b>	<b>15</b>	<b>12,000</b>	<b>15,200</b>	<b>1,500</b>	
Trichloroethene	5	NSL	<2,000	<1,000	<2500	<2500	<500	<b>54</b>	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<b>1.3 J</b>		
Vinyl Chloride	2	NSL	<800	<400	<1000	<1000	<500	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<1.0	<200	<200	<2.0		
Xylenes (total)	10,000	10,000	<2,000	<1,000	<2,500	<2,500	<500	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<500	<500	<5.0		
<b>Nitrate (EPA Method 352.1)</b>																				
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Nitrate	10	NSL	NA	NA	NA	NA	1.0	NA	NA	NA	NA	NA	0.85	NA	NA	0.12	NA	NA	NA	
<b>Sulfate (EPA Method 375.2)</b>																				
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Sulfate	250	NSL	NA	NA	NA	NA	0.57 J	NA	NA	NA	NA	NA	0.52 J	NA	NA	3.4	NA	NA	NA	
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																				
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
Benzo(a)anthracene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	0.20	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	NSL	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells																						
			MW-10R			MW-10I			MW-10D			MW-11					MW-12				MW-13				
			7/28/2015	2/7/2017	4/9/2019	7/28/2015	2/7/2017	4/9/2019	6/4/2014	7/28/2015	4/9/2019	4/19/2012	8/23/2012	6/4/2014	7/29/2015	2/8/2017	4/9/2019	6/5/2014	7/29/2015	2/8/2017	4/10/2019	6/5/2014	7/28/2015	4/11/2019	
<b>Volatile Organic Compounds (EPA Method 8260)</b>																									
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzene	5	5	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0	
Bromodichloromethane	80	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0	
2-Butanone (MEK)	NSL	NSL	<200	<1,000	<1,000	<2,000	<2,000	<2,000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<500	<500	<1,000	<500	<10.0	<10.0	<10.0	
Chloroform	80	NSL	<b>5.8 J</b>	<500	<100	<1,000	<1,000	<200	<b>2.5 J</b>	<b>0.48 J</b>	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<b>2.8 J</b>	<5.0	<b>1.8</b>		
1,2-Dichloroethane	5	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0		
cis-1,2-Dichloroethene	70	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0			
1,2-Dichloropropane	5	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0			
Ethylbenzene	700	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0		
2-Hexanone	NSL	NSL	<200	<1,000	<1,000	<2,000	<2,000	<2,000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<500	<500	<1,000	<500	<10.0	<10.0	<10.0		
Isopropylbenzene	NSL	NSL	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0			
4-Methyl-2-pentanone	NSL	NSL	<100	<1,000	<1,000	<2,000	<2,000	<2,000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<500	<500	<1,000	<500	<10.0	<10.0	<10.0		
Methylcyclohexane	NSL	NSL	<100	<500	<500	<1,000	<1,000	<1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<250	<250	<500	<500	<250	<5.0	<5.0			
Tetrachloroethene	5	NSL	<b>2,900</b>	<b>5,900</b>	<b>6,000</b>	<b>15,000</b>	<b>19,000</b>	<b>14,000</b>	<b>1.8 J</b>	<b>2.2 J</b>	3	<5.0	<5.0	<b>37</b>	<b>2.8 J</b>	<5.0	<b>2.7</b>	<b>4,500</b>	<b>4,800</b>	<b>6,300</b>	<b>4,400</b>	<b>0.82 J</b>	<5.0	<1.0	
Trichloroethene	5	NSL	<b>5.1 J</b>	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<b>5.2</b>	<5.0	<5.0	<5.0	<1.0	<250	<250	<500	<50	<5.0	<5.0	<1.0		
Vinyl Chloride	2	NSL	<40.0	<200	<100	<400	<400	<200	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<1.0	<100	<100	<200	<50	<2.0	<2.0	<1.0			
Xylenes (total)	10,000	10,000	<100	<500	<100	<1,000	<1,000	<200	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<500	<500	<500	<50	<5.0	<5.0	<1.0		
<b>Nitrate (EPA Method 352.1)</b>																									
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Nitrate	10	NSL	NA	NA	0.87	NA	NA	1.5	NA	NA	0.77	NA	NA	NA	NA	0.46	NA	NA	NA	NA	1.7	NA	NA	0.58	
<b>Sulfate (EPA Method 375.2)</b>																									
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Sulfate	250	NSL	NA	NA	0.26 J	NA	NA	0.56 J	NA	NA	6.5	NA	NA	NA	NA	<1.0	NA	NA	NA	0.30 J	NA	NA	0.23 J		
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																									
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzo(a)anthracene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.20	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NSL	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

- Notes:
- Sample analysis performed by Shealy Environmental Services, Inc. of West Columbia, South Carolina, except for August 2012.
  - Sample analysis for the August 2012 sampling event was performed by Gulf Coast Analytical Laboratories, Inc. of Baton Rouge, Louisiana.
  - RBSL - Risk Based Screening Level based on South Carolina Department of Health and Environmental Control (SCDHEC) Risk Based Corrective Action (RBCA) for Petroleum Releases (May 15, 2001).
  - MCL - Maximum Contaminant Level established by Environmental Protection Agency (EPA) Regional Screening Level (RSL) Summary Table (November 2018).
  - All VOC and PAH concentrations are in micrograms per liter (µg/L).
  - All sulfate and nitrate concentrations are in milligrams per liter (mg/l).
  - Constituents not listed in this table, but analyzed as part of the analytical suite, were not detected in any of the samples.
  - A bold value indicates a detected concentration.
  - A bold and highlighted value indicates a detected concentration which exceeds the MCL or RBSL.
  - NSL = No Screening Level Listed.
  - A bold and italicized value indicates detected value with no established MCL or RBSL.
  - NA = Not analyzed or not applicable
  - J - Estimated Value
  - < - Indicates less than

**Table 2  
Groundwater Analytical Results  
Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells																			
			MW-14			MW-15		MW-15 R			MW-16			MW-16D			MW-17			MW-18		
			6/4/2014	7/28/2015	4/9/2019	6/5/2014	7/28/2015	2/8/2017	4/10/2019	6/5/2014	7/28/2015	4/9/2019	6/4/2014	7/28/2015	4/9/2019	6/5/2014	7/28/2015	2/7/2017	4/10/2019	6/5/2014	7/28/2015	4/10/2019
<b>Volatile Organic Compounds (EPA Method 8260)</b>																						
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
Benzene	5	5	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
Bromodichloromethane	80	NSL	<5.0	<25.0	<1.0	<5.0	<b>2.9 J</b>	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<b>3.2 J</b>	<5.0	<25	<1.0	<5.0	<5.0	<1.0
2-Butanone (MEK)	NSL	NSL	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50	<10.0	<10.0	<10.0	<10.0
Chloroform	80	NSL	<b>2.3 J</b>	<25.0	<1.0	<b>3.9 J</b>	<b>5.5</b>	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<b>8.6</b>	<5.0	<25	<1.0	<5.0	<5.0	<1.0
1,2-Dichloroethane	5	NSL	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene	70	NSL	<b>0.24 J</b>	<25.0	<b>0.42 J</b>	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
1,2-Dichloropropane	5	NSL	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
Ethylbenzene	700	NSL	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
2-Hexanone	NSL	NSL	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	NSL	NSL	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
4-Methyl-2-pentanone	NSL	NSL	<10.0	<50.0	<10.0	<10.0	<b>0.84 J</b>	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50	<10.0	<10.0	<10.0	<10.0
Methylcyclohexane	NSL	NSL	<5.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	NSL	<b>78</b>	<b>150</b>	<b>170</b>	<b>0.60 J</b>	<5.0	<5.0	<b>1.8</b>	<b>160</b>	<b>110</b>	<b>780</b>	<b>18</b>	<b>30</b>	<b>18</b>	<b>75</b>	<b>690</b>	<b>380</b>	<b>190</b>	<b>0.78 J</b>	<b>0.90 J</b>	<b>0.51 J</b>
Trichloroethene	5	NSL	<5.0	<25.0	<b>0.84 J</b>	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<b>0.79 J</b>	<b>8.3 J</b>	<25	<b>3.1</b>	<5.0	<5.0	<1.0
Vinyl Chloride	2	NSL	<2.0	<10.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<10.0	<2.0	<2.0	<1.0	<2.0	<2.0	<10	<1.0	<2.0	<2.0	<1.0
Xylenes (total)	10,000	10,000	<5.0	<25.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<25	<1.0	<5.0	<5.0	<1.0
<b>Nitrate (EPA Method 352.1)</b>																						
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Nitrate	10	NSL	NA	NA	0.62	NA	NA	NA	0.42	NA	NA	0.39	NA	NA	0.77	NA	NA	NA	1.9	NA	NA	2.4
<b>Sulfate (EPA Method 375.2)</b>																						
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Sulfate	250	NSL	NA	NA	<1.0	NA	NA	NA	<1.0	NA	NA	<1.0	NA	NA	0.25 J	NA	NA	NA	0.40 J	NA	NA	<1.0
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																						
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzo(a)anthracene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.20	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NSL	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Notes:**

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- Sample analysis for the August 2012 sampling event was performed by Gulf Coast Analytical Laboratories, Inc. of Baton Rouge, Louisiana.
- RBSL - Risk Based Screening Level based on South Carolina Department of Health and Environmental Control (SCDHEC) Risk Based Corrective Action (RBCA) for Petroleum Releases (May 15, 2001).
- MCL - Maximum Contaminant Level established by Environmental Protection Agency (EPA) Regional Screening Level (RSL) Summary Table (November 2018).
- All VOC and PAH concentrations are in micrograms per liter (µg/L).
- All sulfate and nitrate concentrations are in milligrams per liter (mg/l)
- Constituents not listed in this table, but analyzed as part of the analytical suite, were not detected in any of the samples.
- A bold value indicates a detected concentration.
- A bold and highlighted value indicates a detected concentration which exceeds the MCL or RBSL.
- NSL = No Screening Level Listed.
- A bold and italicized value indicates detected value with no established MCL or RBSL.
- NA = Not analyzed or not applicable
- J - Estimated Value
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**Table 2  
Groundwater Analytical Results  
Current (April 2019) and Historical**

**Itron, Inc.  
Greenwood, South Carolina**

Compounds	MCLs	RBSLs	Monitoring Wells													
			MW-19			MW-20			MW-21			MW-22D			MW-23	
			7/28/2015	2/8/2017	4/10/2019	7/28/2015	2/8/2017	4/11/2019	7/29/2015	2/8/2017	4/9/2019	7/28/2015	2/8/2017	4/10/2019	2/7/2017	4/11/2019
<b>Volatile Organic Compounds (EPA Method 8260)</b>																
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzene	5	5	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
Bromodichloromethane	80	NSL	<b>0.27 J</b>	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<b>0.31 J</b>	<5.0	<1.0	<5.0	<1.0	<1.0
2-Butanone (MEK)	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloroform	80	NSL	<b>0.77 J</b>	<5.0	<1.0	<b>2.9 J</b>	<5.0	<5.0	<5.0	<1.0	<b>1.3 J</b>	<5.0	<1.0	<5.0	<1.0	<1.0
1,2-Dichloroethane	5	NSL	<5.0	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
cis-1,2-Dichloroethene	70	NSL	<5.0	<5.0	<1.0	<b>3.8 J</b>	<50	<b>2.2 J</b>	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0
1,2-Dichloropropane	5	NSL	<5.0	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
Ethylbenzene	700	NSL	<5.0	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
2-Hexanone	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	NSL	NSL	<5.0	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
4-Methyl-2-pentanone	NSL	NSL	<10.0	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylcyclohexane	NSL	NSL	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	NSL	<b>1.2 J</b>	<5.0	<b>1.1</b>	<b>360</b>	<b>590</b>	<b>450</b>	<b>1.7 J</b>	<b>9.2</b>	<b>2.5</b>	<5.0	<5.0	<b>1.2</b>	<5.0	<1.0
Trichloroethene	5	NSL	<5.0	<5.0	<1.0	<b>4.3 J</b>	<50	<b>4.8 J</b>	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0
Vinyl Chloride	2	NSL	<2.0	<2.0	<1.0	<2.0	<20	<5.0	<2.0	<2.0	<1.0	<2.0	<2.0	<1.0	<2.0	<1.0
Xylenes (total)	10,000	10,000	<5.0	<5.0	<1.0	<5.0	<50	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0
<b>Nitrate (EPA Method 352.1)</b>																
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Nitrate	10	NSL	NA	NA	0.79	NA	NA	0.078	NA	NA	0.39	NA	NA	0.45	NA	0.18
<b>Sulfate (EPA Method 375.2)</b>																
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Sulfate	250	NSL	NA	NA	0.21 J	NA	NA	2.9	NA	NA	<1.0	NA	NA	1.4	NA	12
<b>Polynuclear Aromatic Hydrocarbons (EPA Method 8270)</b>																
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Benzo(a)anthracene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.20	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NSL	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NSL	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NSL	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Notes:**

- Sample analysis performed by Shealy Environmental Services, Inc. of West Columbia, South Carolina, except for August 2012.
- Sample analysis for the August 2012 sampling event was performed by Gulf Coast Analytical Laboratories, Inc. of Baton Rouge, Louisiana.
- RBSL - Risk Based Screening Level based on South Carolina Department of Health and Environmental Control (SCDHEC) Risk Based Corrective Action (RBCA) for Petroleum Releases (May 15, 2001).
- MCL - Maximum Contaminant Level established by Environmental Protection Agency (EPA) Regional Screening Level (RSL) Summary Table (November 2018).
- All VOC and PAH concentrations are in micrograms per liter (µg/L).
- All sulfate and nitrate concentrations are in milligrams per liter (mg/l)
- Constituents not listed in this table, but analyzed as part of the analytical suite, were not detected in any of the samples.
- A bold value indicates a detected concentration.
- A bold and highlighted value indicates a detected concentration which exceeds the MCL or RBSL.
- NSL = No Screening Level Listed.
- A bold and italicized value indicates detected value with no established MCL or RBSL.
- NA = Not analyzed or not applicable
- J - Estimated Value
- < - Indicates less than


## **FIGURES**

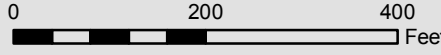


Source: Imagery provided by ESRI ArcGIS Online

**Legend**

- ◆ Shallow Monitoring Well Location
- ◆ Intermediate Monitoring Well Location
- ◆ Deep Monitoring Well Location
- Itron Property Line (Approximate)


  
 South Carolina State Plane, NAD 83  
 Zone 3900, International Feet


  
 0      200      400  
 Feet




**Figure 1**  
**Monitoring Well**  
**Location Map**






**Legend**

- ◆ Shallow Monitoring Well Location
- 535 Potentiometric Surface Contours (feet above MSL)
- Approximate Groundwater Flow Direction
- Itron Property Line (Approximate)

MSL - Mean Sea Level  
 [532.82] - Water Elevation (feet above MSL)  
 Water levels measured April 9, 2019

  
 South Carolina State Plane, NAD 83  
 Zone 3900, International Feet

0      200      400  
 Feet





**Figure 2**  
**Potentiometric Surface**  
**Map (Upper Regolith) -**  
**April 2019**

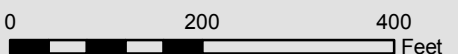


**Legend**

- ◆ Intermediate Monitoring Well Location
- 528 Potentiometric Surface Contours (feet above MSL)
- Approximate Groundwater Flow Direction
- Itron Property Line (Approximate)

MSL - Mean Sea Level  
 [530.25] - Water Elevation (feet above MSL)  
 Water levels measured April 9, 2019

  
 South Carolina State Plane, NAD 83  
 Zone 3900, International Feet

  
 0 200 400 Feet

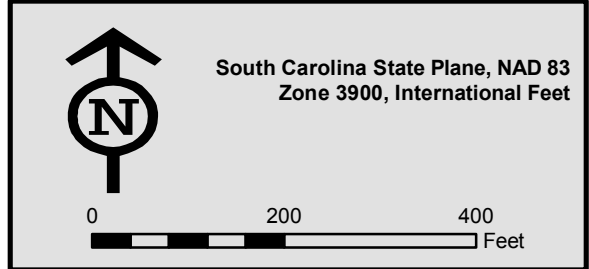



**Figure 3**  
**Potentiometric Surface Map**  
**(Intermediate Regolith) -**  
**April 2019**

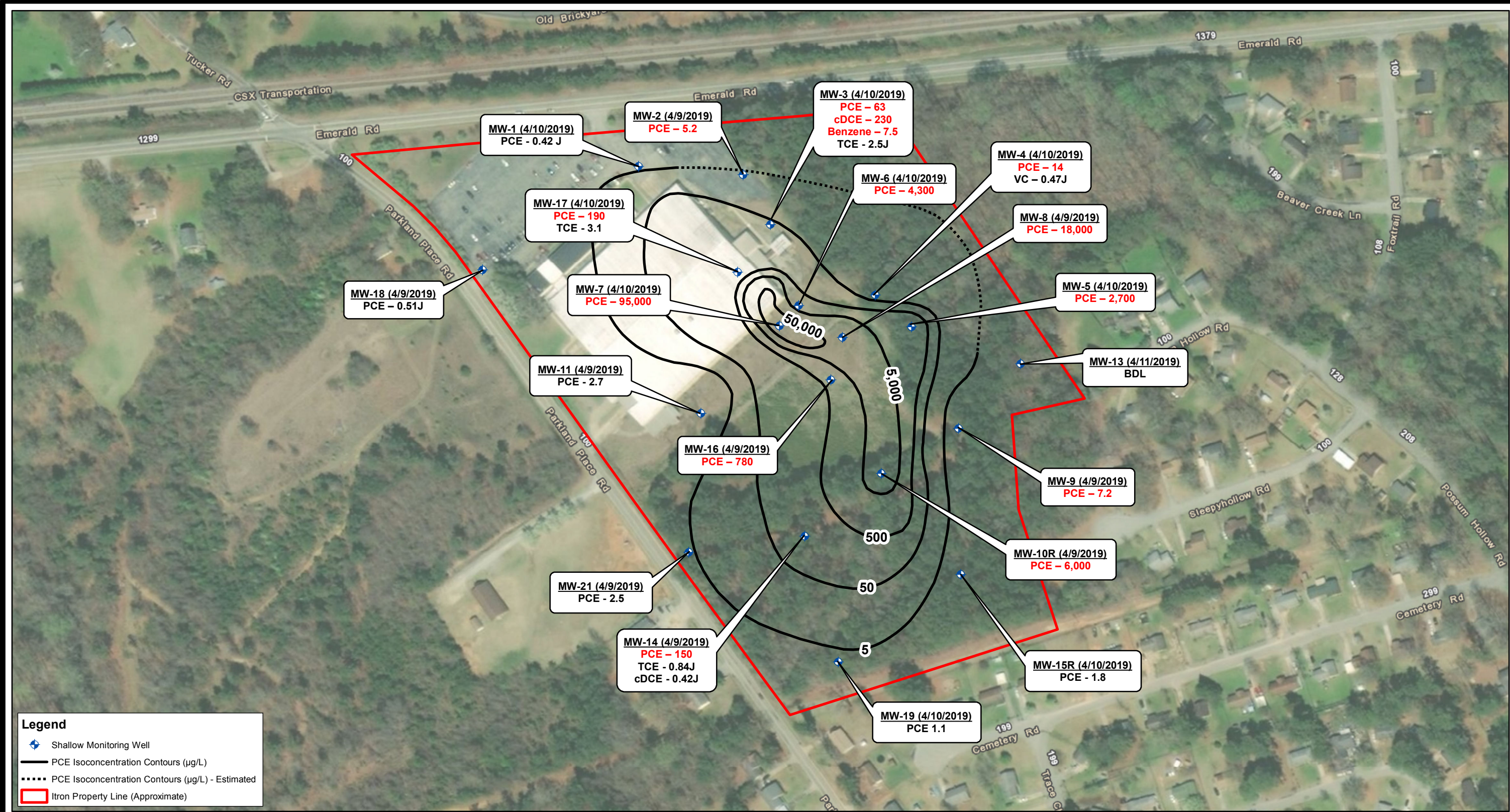


**Legend**

- ◆ Deep Monitoring Well Location
  - Potentiometric Surface Contours (feet above MSL)
  - Approximate Groundwater Flow Direction
  - Itron Property Line (Approximate)
- MSL - Mean Sea Level
  - [530.47] - Water Elevation (feet above MSL)
  - Water levels measured April 9, 2019



**Figure 4**  
**Potentiometric Surface Map**  
**(Lower Regolith) -**  
**April 2019**



**Legend**

- Shallow Monitoring Well
- PCE Isoconcentration Contours (µg/L)
- PCE Isoconcentration Contours (µg/L) - Estimated
- Itron Property Line (Approximate)

**NOTES:**

Red indicates concentrations above Maximum Contaminant Levels (MCLs).

All results reported in µg/l (micrograms per liter).

Only Chemicals of Concern (COCs) detected above laboratory detection limit included. Other COCs included in Table 2 of the Groundwater Monitoring Report - April 2019.

- BDL - Below Detection Limits
- J - Estimated Value
- PCE - Tetrachloroethene
- TCE - Trichloroethene
- cDCE - cis-1,2-Dichloroethene
- VC - Vinyl Chloride

South Carolina State Plane, NAD 83  
Zone 3900, International Feet

**Figure 5**  
Distribution of COCs in  
Upper Regolith - Groundwater  
April 2019



**MW-12 (4/10/2019)**  
**PCE - 4,400**

**MW-20 (4/11/2019)**  
**PCE - 450**  
**TCE - 4.8J**  
**cDCE - 2.2J**

**MW-23 (4/11/2019)**  
**BDL**

**MW-10I (4/9/2019)**  
**PCE - 14,000**

**Legend**

- Intermediate Monitoring Well
- PCE Isoconcentration Contours (µg/L)
- PCE Isoconcentration Contours (µg/L) - Estimated
- Itron Property Line (Approximate)

**NOTES:**  
 Red indicates concentrations above Maximum Contaminant Levels (MCLs).  
 All results reported in µg/l (micrograms per liter).  
 Only Chemicals of Concern (COCs) detected above laboratory detection limit included. Other COCs included in Table 2 of the Groundwater Monitoring Report - April 2019.

- BDL – Below Detection Limits

South Carolina State Plane, NAD 83  
 Zone 3900, International Feet

0 200 400  
 Feet

**AECOM**

**Figure 6**  
**Distribution of COCs in**  
**Intermediate Regolith -**  
**Groundwater**  
**April 2019**



**Legend**

- ◆ Deep Monitoring Well
- PCE Isoconcentration Contours (µg/L)
- PCE Isoconcentration Contours (µg/L) - Estimated
- Itron Property Line (Approximate)

**NOTES:**

Red indicates concentrations above Maximum Contaminant Levels (MCLs).

All results reported in µg/l (micrograms per liter).

Only Chemicals of Concern (COCs) detected above laboratory detection limit included. Other COCs included in Table 2 of the Groundwater Monitoring Report - April 2019.

- BDL- Below Detection Limits
- J - Estimated Value
- PCE - Tetrachloroethene
- cDCE - cis-1,2-Dichloroethene

South Carolina State Plane, NAD 83  
Zone 3900, International Feet

**Figure 7**  
Distribution of COCs in  
Lower Regolith - Groundwater  
April 2019

**APPENDIX A**  
**FIELD DATA SHEETS**

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-1  
 Site Name ITRON Greenwood, SC Facility  
 Date 4/10/19  
 Field Personnel Matt McParland McLew  
 Job # 66520033 60601469  
 Weather Conditions Sunny  
 Air Temperature 76 °F  
 Total Well Depth (TWD) 31.50 1/100 ft  
 Depth to Ground Water (DGW) 21.11 1/100 ft  
 Length of Water Column (LWC) = TWD - DGW 10.39 1/100 ft  
 1 Casing Volume = LWC x 0.163 = 1.69 gal  
 3 Casing Volumes 5.07 gal = Standard Evacuation Volume  
 Method of Well Excavation Submersible Automatic Pump and Tubing  
 Method of Sample Collection Submersible Automatic Pump and Tubing  
 Total Volume of Water Removed 0.75 gallons

Casing Diameter 2.0 Inches  
 Casing Material PVC  
 Measuring Point Elevation \_\_\_\_\_ 1/100 ft  
 Land Surface Elevation \_\_\_\_\_ 1/100 ft  
 Screened Interval \_\_\_\_\_ 1/100 ft  
 Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_  
 Locking Cap YES X NO \_\_\_\_\_  
 Well Integrity Satisfactory YES X NO \_\_\_\_\_  
 Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_  
 Remarks Sampled @ 1705

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Limit	~ 0.25	~ 0.5	~ 0.75		
TIME (military)	1645	1650	1655	1670		
PH (S.U.)	5.01	5.00	5.02	5.04		
Sp. Cond. (units: Ms/cm)	0.040	0.041	0.043	0.041		
Water Temp. (°C)	23.44	23.55	23.65	23.76		
TURBIDITY (ntu)	246	272	194	141		
ORP (mV)	285.9	287.2	287.8	285.7		
Dissolved Oxygen (mg/L)	7.29	7.25	7.11	7.13		
Salinity	—	—	—	—		
Water Level	23.50	24.11	24.43	24.69		

COMMENTS/OBSERVATIONS:



## Field Data Information Log for Groundwater Sampling

Well ID # MW-2

Site Name ITRON Greenwood, SC Facility

Date 4/9/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~0520033~~ 60601469

Weather Conditions Partly Cloudy

Air Temperature 73 °F

Total Well Depth (TWD) 34.80 1/100 ft

Depth to Ground Water (DGW) 27.73 1/100 ft

Length of Water Column (LWC) = TWD - DGW 7.07 1/100 ft

1 Casing Volume = LWC x 0.163 = 1.15 gal

3 Casing Volumes 3.45 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible

Total Volume of Water Removed 2 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1740

### FIELD ANALYSES

	0	1	2			
VOLUME PURGED (gallons)						
TIME (military)	1727	1732	1737			
PH (S.U.)	5.87	5.41	5.40			
Sp. Cond. (units: <u>Ms/cm</u> )	0.086	0.062	0.065			
Water Temp. (°C)	22.75	23.00	23.36			
TURBIDITY (ntu)	301	531	275			
ORP (mV)	52.6	81.6	102.6			
Dissolved Oxygen (mg/L)	2.13	3.55	3.29			
Salinity	-	-	-			
Water Level	27.73	33.15	33.87			

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Well ID # MW-3

Site Name ITRON Greenwood, SC Facility

Date 4/10/2019

Field Personnel Aaron Council

Job # ~~00520003~~ 60601469

Weather Conditions Sunny

Air Temperature 62 °F

Total Well Depth (TWD) 47.0 1/100 ft

Depth to Ground Water (DGW) 27.05 1/100 ft

Length of Water Column (LWC) = TWD - DGW 19.95 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.25 gal

3 Casing Volumes 9.75 gal = Standard Evacuation Volume

Method of Well Excavation ~~Portable Pump and Tubing~~ <sup>Submersible</sup>

Method of Sample Collection ~~Portable Pump and Tubing~~ <sup>Submersible</sup>

Total Volume of Water Removed 5.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 0900

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	2	3.5	4.5	5.5		
TIME (military)	0838	0843	0848	0853	0858		
PH (S.U.)	5.89	5.75	5.76	5.78	5.80		
Sp. Cond. (units: Ms/cm )	0.104	0.089	0.089	0.107	0.115		
Water Temp. (°C)	18.74	19.01	19.14	19.28	19.48		
TURBIDITY (ntu)	261	93.5	62.7	>1000	>1000		
ORP (mV)	68.6	66.7	74.9	85.8	85.1		
Dissolved Oxygen (mg/L)	2.32	0.82	0.88	0.75	0.84		
Salinity	-	-	-	-	-		
Water Level	27.05	37.77	38.86	40.49	41.38		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-4  
 Site Name ITRON Greenwood, SC Facility  
 Date 4/10/19  
 Field Personnel Marc McEneaney M. Law  
 Job # 00020033 60601469  
 Weather Conditions Sunny  
 Air Temperature 75 °F  
 Total Well Depth (TWD) 47.0 1/100 ft  
 Depth to Ground Water (DGW) 27.25 1/100 ft  
 Length of Water Column (LWC) = TWD - DGW 19.65 1/100 ft  
 1 Casing Volume = LWC x 0.163 = 3.20 gal  
 3 Casing Volumes 9.60 gal = Standard Evacuation Volume  
 Method of Well Excavation Perforated Pump and Tubing  
 Method of Sample Collection Perforated Pump and Tubing  
 Total Volume of Water Removed ~1.0 gallons

Casing Diameter 2.0 Inches  
 Casing Material PVC  
 Measuring Point Elevation \_\_\_\_\_ 1/100 ft  
 Land Surface Elevation \_\_\_\_\_ 1/100 ft  
 Screened Interval \_\_\_\_\_ 1/100 ft  
 Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_  
 Locking Cap YES X NO \_\_\_\_\_  
 Well Integrity Satisfactory YES X NO \_\_\_\_\_  
 Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_  
 Remarks Sampled @ 1310

### FIELD ANALYSES

	0 Initial	~ 0.25	20.5	~ 0.75		
VOLUME PURGED (gallons)						
TIME (military)	1250	1255	1300	1305		
PH (S.U.)	5.54	5.58	5.59	5.61		
Sp. Cond. (units: Ms/cm)	0.109	0.113	0.113	0.112		
Water Temp. (°C)	18.27	18.26	18.26	18.18		
TURBIDITY (ntu)	322	71200	71200	71200		
ORP (mV)	183.1	156.5	148.1	148.1		
Dissolved Oxygen (mg/L)	2.76	1.98	1.92	1.96		
Salinity	—	✓	—	—		
Water Level	29.12	29.90	30.32	30.73		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-5  
 Site Name ITRON Greenwood, SC Facility  
 Date 4/10/19  
 Field Personnel Marcus Portland M. Lew  
 Job # 00020033 60601469  
 Weather Conditions Sunny  
 Air Temperature 68 °F  
 Total Well Depth (TWD) 47 1/100 ft  
 Depth to Ground Water (DGW) 24.92 1/100 ft  
 Length of Water Column (LWC) = TWD - DGW 22.07 1/100 ft  
 1 Casing Volume = LWC x 0.163 = 3.60 gal  
 3 Casing Volumes 10.80 gal = Standard Evacuation Volume  
 Method of Well Excavation Submersible Peristaltic Pump and Tubing  
 Method of Sample Collection Submersible Peristaltic Pump and Tubing  
 Total Volume of Water Removed 1 gallons

Casing Diameter 2.0 Inches  
 Casing Material PVC  
 Measuring Point Elevation \_\_\_\_\_ 1/100 ft  
 Land Surface Elevation \_\_\_\_\_ 1/100 ft  
 Screened Interval \_\_\_\_\_ 1/100 ft  
 Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_  
 Locking Cap YES X NO \_\_\_\_\_  
 Well Integrity Satisfactory YES X NO \_\_\_\_\_  
 Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_  
 Remarks Sampled @ 155

### FIELD ANALYSES

	0 (In:LL)	~0.5	~0.75	~1.0		
VOLUME PURGED (gallons)	1135	1140	1145	1150		
TIME (military)	5.62	5.55	5.56	5.58		
PH (S.U.)	0.087	0.099	0.096	0.096		
Sp. Cond. (units: Ms/cm)	18.38	18.24	18.24	18.36		
Water Temp. (°C)	24.6	24.1	24.3	24.6		
TURBIDITY (ntu)	279.4	274.7	266.6	265.0		
ORP (mV)	5.31	2.85	2.71	2.77		
Dissolved Oxygen (mg/L)	—	—	—	—		
Salinity	26.81	27.06	26.93	26.96		
Water Level						

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-5D  
 Site Name ITRON Greenwood, SC Facility  
 Date 4/10/2019  
 Field Personnel ~~Marc McFarland~~ Aaron Council  
 Job # ~~60520883~~ 60601469  
 Weather Conditions Sunny  
 Air Temperature 73 °F  
 Total Well Depth (TWD) ~~47.80~~ 74 1/100 ft  
 Depth to Ground Water (DGW) 26.19 1/100 ft  
 Length of Water Column (LWC) = TWD - DGW 47.81 1/100 ft  
 1 Casing Volume = LWC x 0.163 = 7.79 gal  
 3 Casing Volumes 23.37 gal = Standard Evacuation Volume  
 Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible  
 Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible  
 Total Volume of Water Removed 5.5 gallons

Casing Diameter 2.0 Inches  
 Casing Material PVC  
 Measuring Point Elevation \_\_\_\_\_ 1/100 ft  
 Land Surface Elevation \_\_\_\_\_ 1/100 ft  
 Screened Interval \_\_\_\_\_ 1/100 ft  
 Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_  
 Locking Cap YES X NO \_\_\_\_\_  
 Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_  
 Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_  
 Remarks Sampled @ 1150

EB-2 collected @ 1225

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	2	3.5	5.5		
TIME (military)	1134	1139	1144	1149		
PH (S.U.)	6.82	7.07	7.31	7.40		
Sp. Cond. (units: <u>Ms/cm</u> )	0.157	0.164	0.168	0.165		
Water Temp. (°C)	17.43	17.49	17.63	17.77		
TURBIDITY (ntu)	124	29	30.1	26.3		
ORP (mV)	-21.4	-52.8	-68.5	-74.9		
Dissolved Oxygen (mg/L)	0.84	0.46	1.16	1.10		
Salinity	-	-	-	-		
Water Level	26.19	41.21	60.45	64.93		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Well ID # MW-6

Site Name ITRON Greenwood, SC Facility

Date 4/10/19

Field Personnel ~~M. Lewis~~ M. Lew

Job # ~~60620093~~ 60601469

Weather Conditions Sunny

Air Temperature 58 °F

Total Well Depth (TWD) 38.0 1/100 ft

Depth to Ground Water (DGW) 23.88 1/100 ft

Length of Water Column (LWC) = TWD - DGW 14.12 1/100 ft

1 Casing Volume = LWC x 0.163 = 2.30 gal

3 Casing Volumes 6.90 gal = Standard Evacuation Volume

Method of Well Excavation ~~Rotary~~ Submersible Pump and Tubing

Method of Sample Collection ~~Rotary~~ Submersible Pump and Tubing

Total Volume of Water Removed 71.0 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1000

### FIELD ANALYSES

VOLUME PURGED (gallons)	<u>0 Initial</u>	<u>~0.75</u>	<u>20.5</u>	<u>~0.75</u>		
TIME (military)	<u>0940</u>	<u>0945</u>	<u>0950</u>	<u>0955</u>		
PH (S.U.)	<u>5.92</u>	<u>5.27</u>	<u>5.21</u>	<u>5.20</u>		
Sp. Cond. (units: <u>Ms/cm</u> )	<u>0.023</u>	<u>0.020</u>	<u>0.018</u>	<u>0.018</u>		
Water Temp. (°C)	<u>18.82</u>	<u>18.95</u>	<u>19.68</u>	<u>20.14</u>		
TURBIDITY (ntu)	<u>16.1</u>	<u>5.52</u>	<u>3.01</u>	<u>2.42</u>		
ORP (mV)	<u>269.2</u>	<u>302.9</u>	<u>302.3</u>	<u>311.3</u>		
Dissolved Oxygen (mg/L)	<u>6.86</u>	<u>6.88</u>	<u>6.54</u>	<u>6.21</u>		
Salinity	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		
Water Level	<u>25.13</u>	<u>25.67</u>	<u>26.02</u>	<u>26.78</u>		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Well ID # MW-7

Site Name ITRON Greenwood, SC Facility

Date 4/10/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~80320003~~ 60601469

Weather Conditions Sunny

Air Temperature 62 °F

Total Well Depth (TWD) 47.0 1/100 ft

Depth to Ground Water (DGW) 25.48 1/100 ft

Length of Water Column (LWC) = TWD - DGW 21.52 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.50 gal

3 Casing Volumes 10.50 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible

Total Volume of Water Removed 4.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1020

### FIELD ANALYSES

	0	1.5	2.5	3.5	4.5		
VOLUME PURGED (gallons)							
TIME (military)	0956	1001	1006	1011	1016		
PH (S.U.)	5.93	5.66	5.61	5.52	5.51		
Sp. Cond. (units: <u>Ms/cm</u> )	0.037	0.038	0.038	0.037	0.036		
Water Temp. (°C)	18.92	19.70	19.63	19.83	20.04		
TURBIDITY (ntu)	>1000	>1000	123	208	328		
ORP (mV)	116.1	124.4	124.7	125.9	127.0		
Dissolved Oxygen (mg/L)	7.24	6.54	7.33	6.90	6.85		
Salinity	-	-	-	-	-		
Water Level	25.48	29.13	30.56	31.40	31.52		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-8

Site Name ITRON Greenwood, SC Facility

Date 4/9/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~00020000~~ 60601469

Weather Conditions Partly Sunny

Air Temperature 73 °F

Total Well Depth (TWD) 57.0 1/100 ft

Depth to Ground Water (DGW) 25.03 1/100 ft

Length of Water Column (LWC) = TWD - DGW 31.97 1/100 ft

1 Casing Volume = LWC x 0.163 = 5.21 gal

3 Casing Volumes 15.63 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible Peristaltic Pump and Tubing

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Baller YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1555

DUP-1 collected @

### FIELD ANALYSES

	0	1.5	3.5	5		
VOLUME PURGED (gallons)						
TIME (military)	1537	1542	1547	1552		
PH (S.U.)	5.84	6.17	6.21	6.23		
Sp. Cond. (units: <u>Ms/cm</u> )	0.045	0.059	0.060	0.060		
Water Temp. (°C)	18.73	18.33	18.25	18.18		
TURBIDITY (ntu)	121	206	675	422		
ORP (mV)	161.3	150.3	146.4	142.1		
Dissolved Oxygen (mg/L)	8.11	7.70	7.22	7.16		
Salinity	-	-	-	-		
Water Level	25.03	41.55	49.33	53.11		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611



## Field Data Information Log for Groundwater Sampling

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Well ID # MW-9

Site Name ITRON Greenwood, SC Facility

Date 4/9/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~00520000~~ 60601469

Weather Conditions Cloudy

Air Temperature 70 °F

Total Well Depth (TWD) 52.0 1/100 ft

Depth to Ground Water (DGW) 31.15 1/100 ft

Length of Water Column (LWC) = TWD - DGW 20.85 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.40 gal

3 Casing Volumes 10.2 gal = Standard Evacuation Volume

Method of Well Excavation ~~Rotatable Pump and Tubing~~ Submersible

Method of Sample Collection ~~Rotatable Pump and Tubing~~ Submersible

Total Volume of Water Removed 4.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1310

### FIELD ANALYSES

	0	1.5	3	4.5		
VOLUME PURGED (gallons)						
TIME (military)	1252	1257	1302	1307		
PH (S.U.)	5.81	5.60	5.51	5.53		
Sp. Cond. (units: <u>Ms/cm</u> )	0.031	0.030	0.033	0.034		
Water Temp. (°C)	17.04	17.32	17.52	17.47		
TURBIDITY (ntu)	973	243	130	67.3		
ORP (mV)	109.6	125.5	136.1	137.5		
Dissolved Oxygen (mg/L)	4.57	4.81	5.36	5.71		
Salinity	-	-	-	-		
Water Level	31.15	41.71	44.33	46.61		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

Well ID # MW-9D

Site Name ITRON Greenwood, SC Facility

Date 4/19/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~60620003~~ 60601469

Weather Conditions Cloudy

Air Temperature 69 °F

Total Well Depth (TWD) 76 1/100 ft

Depth to Ground Water (DGW) 30.94 1/100 ft

Length of Water Column (LWC) = TWD - DGW 45.06 1/100 ft

1 Casing Volume = LWC x 0.163 = 7.34 gal

3 Casing Volumes 22.02 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 6 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1205

EB-1 collected @ 1235

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	2	3.5	5	6		
TIME (military)	1141	1146	1151	1156	1201		
PH (S.U.)	7.12	7.04	6.96	6.89	6.84		
Sp. Cond. (units: Ms/cm )	0.095	0.101	0.111	0.120	0.121		
Water Temp. (°C)	16.67	17.85	17.66	17.92	17.96		
TURBIDITY (ntu)	71000	816	175	108	93		
ORP (mV)	16.3	4.6	24.7	24.7	25.8		
Dissolved Oxygen (mg/L)	<del>AC</del> 1.21	1.18	0.46	0.47	0.50		
Salinity	-	-	-	-	-		
Water Level	30.94	44.90	50.15	51.34	53.47		

COMMENTS/OBSERVATIONS: Water very gray @ beginning of purging

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

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Well ID # MW-10D

Site Name ITRON Greenwood, SC Facility

Date 4/9/19

Field Personnel Marc McLeod M. Law

Job # 00000000 60601469

Weather Conditions cloudy

Air Temperature 68 °F

Total Well Depth (TWD) 76 1/100 ft

Depth to Ground Water (DGW) 24.25 1/100 ft

Length of Water Column (LWC) = TWD - DGW 51.75 1/100 ft

1 Casing Volume = LWC x 0.163 = 8.4 gal

3 Casing Volumes 25.2 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 2.0 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1100

### FIELD ANALYSES

	0 In. x 1	1.0	1.25	1.5	2.0
VOLUME PURGED (gallons)					
TIME (military)	1035	1040	1045	1050	1055
PH (S.U.)	6.68	6.67	6.66	6.65	6.66
Sp. Cond. (units: Ms/cm)	0.114	0.091	0.091	0.091	0.091
Water Temp. (°C)	17.19	17.13	17.17	17.21	17.10
TURBIDITY (ntu)	132	>1200	788	689	527
ORP (mV)	216.5	144.5	145.9	147.6	148.6
Dissolved Oxygen (mg/L)	3.08	2.47	2.43	2.28	2.73
Salinity	—	—	—	—	—
Water Level	26.03	29.10	30.95	31.46	31.30

COMMENTS/OBSERVATIONS:

## Field Data Information Log for Groundwater Sampling

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Well ID # MW-101

Site Name ITRON Greenwood, SC Facility

Date 4/9/2019

Field Personnel ~~Mark McFarland~~ Aaron Council

Job # ~~00000000~~ 60601469

Weather Conditions Cloudy

Air Temperature 64 °F

Total Well Depth (TWD) 58.2 1/100 ft

Depth to Ground Water (DGW) 22.02 1/100 ft

Length of Water Column (LWC) = TWD - DGW 36.18 1/100 ft

1 Casing Volume = LWC x 0.163 = 5.89 gal

3 Casing Volumes 17.67 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible

Total Volume of Water Removed 6 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1100

### FIELD ANALYSES

	0	2	4	5	6		
VOLUME PURGED (gallons)							
TIME (military)	1035	1040	1045	1050	1055		
PH (S.U.)	6.88	6.21	6.19	6.14	6.13		
Sp. Cond. (units: Ms/cm)	0.056	0.055	0.053	0.053	0.052		
Water Temp. (°C)	16.44	16.62	16.64	16.63	16.50		
TURBIDITY (ntu)	71000	71000	536	321	266		
ORP (mV)	44.8	82.2	87.1	95.3	99.1		
Dissolved Oxygen (mg/L)	8.43	7.32	7.18	6.97	6.90		
Salinity	-	-	-	-	-		
Water Level	22.02	25.59	30.61	30.75	30.88		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-10R

Site Name ITRON Greenwood, SC Facility

Date 4/9/19

Field Personnel Moss McFarland M. Low

Job # 89520033-60601469

Weather Conditions cloudy

Air Temperature 68 °F

Total Well Depth (TWD) 35 1/100 ft

Depth to Ground Water (DGW) 23.05 1/100 ft

Length of Water Column (LWC) = TWD - DGW 11.95 1/100 ft

1 Casing Volume = LWC x 0.163 = 1.95 gal

3 Casing Volumes 5.85 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 2675 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1200

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Initial	205	~0.95	~1.0	~1.50	
TIME (military)	1130	1135	1140	1145	1150	
PH (S.U.)	5.51	5.34	5.63	5.72	5.68	
Sp. Cond. (units: Ms/cm)	0.034	0.034	0.041	0.046	0.046	
Water Temp. (°C)	16.59	17.12	17.63	17.69	17.74	
TURBIDITY (ntu)	>1200	620	295	175	115	
ORP (mV)	213.4	275.7	233.3	232.9	233.9	
Dissolved Oxygen (mg/L)	7.23	7.09	6.87	6.72	6.86	
Salinity	—	—	—	—	—	
Water Level	25.18	26.10	27.02	27.48	28.01	

COMMENTS/OBSERVATIONS:

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

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Well ID # MW-11

Site Name ITRON Greenwood, SC Facility

Date 4/9/2019

Field Personnel ~~Marc McFarland~~ Aaron Council

Job # ~~00020033~~ 60601469

Weather Conditions Sunny

Air Temperature 70 °F

Total Well Depth (TWD) 40 1/100 ft

Depth to Ground Water (DGW) 23.82 1/100 ft

Length of Water Column (LWC) = TWD - DGW 16.18 1/100 ft

1 Casing Volume = LWC x 0.163 = 2.63 gal

3 Casing Volumes 7.89 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible Peristaltic Pump and Tubing

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 4 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1445

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	1	2	3	4		
TIME (military)	1422	1427	1432	1437	1442		
PH (S.U.)	5.27	5.18	5.15	5.12	5.07		
Sp. Cond. (units: Ms/cm)	0.023	0.027	0.027	0.027	0.027		
Water Temp. (°C)	18.67	18.83	19.01	18.97	19.01		
TURBIDITY (ntu)	785	368	97.1	89.0	105		
ORP (mV)	156.7	162.4	164.3	162.8	161.8		
Dissolved Oxygen (mg/L)	7.40	7.15	7.03	6.85	6.45		
Salinity	—	—	—	—	—		
Water Level	23.82	30.89	31.95	33.30	35.66		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-12

Site Name ITRON Greenwood, SC Facility

Date 4/10/19

Field Personnel Marc McFarland M. Lew

Job # 00520033 60601469

Weather Conditions Sunny

Air Temperature 76 °F

Total Well Depth (TWD) 58 1/100 ft

Depth to Ground Water (DGW) 35.68 1/100 ft

Length of Water Column (LWC) = TWD - DGW 22.32 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.64 gal

3 Casing Volumes 10.92 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Pump and Tubing

Method of Sample Collection Submersible Pump and Tubing

Total Volume of Water Removed 26.0 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1350

### FIELD ANALYSES

	0 Initial	~0.25	~0.5	~0.75		
VOLUME PURGED (gallons)						
TIME (military)	1330	1335	1340	1345		
PH (S.U.)	6.02	5.78	5.81	5.82		
Sp. Cond. (units: <u>Ms/cm</u> )	0.111	0.109	0.110	0.110		
Water Temp. (°C)	19.51	18.95	19.06	19.14		
TURBIDITY (ntu)	7/200	7/200	7/200	7/200		
ORP (mV)	190.2	223.5	225.6	229.2		
Dissolved Oxygen (mg/L)	5.71	4.30	4.32	4.17		
Salinity	—	—	—	—		
Water Level	37.86	37.93	37.91	37.92		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-13

Site Name ITRON Greenwood, SC Facility

Date 4/11/14

Field Personnel ~~Marc McFarland~~ M. Law

Job # ~~00000003~~ 60601469

Weather Conditions P. Cloudy

Air Temperature 59 °F

Total Well Depth (TWD) 40 1/100 ft

Depth to Ground Water (DGW) 28.85 1/100 ft

Length of Water Column (LWC) = TWD - DGW 11.15 1/100 ft

1 Casing Volume = LWC x 0.163 = 1.82 gal

3 Casing Volumes 5.46 gal = Standard Evacuation Volume

Method of Well Excavation ~~Open Pit~~ Pump and Tubing

Method of Sample Collection ~~Open Pit~~ Pump and Tubing

Total Volume of Water Removed 26.0 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES  NO \_\_\_\_\_

Well Yield LOW  MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1000

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Initial	20.25	~0.5	~0.25		
TIME (military)	0935	0940	0945	0950		
PH (S.U.)	5.23	4.79	4.75	4.81		
Sp. Cond. (units: <u>Ms/cm</u> )	0.025	0.023	0.022	0.022		
Water Temp. (°C)	17.13	17.15	17.42	17.75		
TURBIDITY (ntu)	306	291	251	186		
ORP (mV)	278.4	307.1	318.5	317.0		
Dissolved Oxygen (mg/L)	8.42	7.81	7.87	7.28		
Salinity	—	—	—	—		
Water Level	30.38	30.82	31.78	31.92		

COMMENTS/OBSERVATIONS: \_\_\_\_\_



## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-14

Site Name ITRON Greenwood, SC Facility

Date 4/6/19

Field Personnel Man. McFarland M. Law

Job # 60620030 60601469

Weather Conditions Cloudy

Air Temperature 68 °F

Total Well Depth (TWD) 46 1/100 ft

Depth to Ground Water (DGW) 20.10 1/100 ft

Length of Water Column (LWC) = TWD - DGW 25.88 1/100 ft

1 Casing Volume = LWC x 0.163 = 4.22 gal

3 Casing Volumes 12.66 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed ~1.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1249

### FIELD ANALYSES

VOLUME PURGED (gallons)	<u>0 Inlet</u>	<u>~0.5</u>	<u>~1.0</u>	<u>~1.5</u>		
TIME (military)	<u>1215</u>	<u>1220</u>	<u>1225</u>	<u>1230</u>		
PH (S.U.)	<u>5.92</u>	<u>5.92</u>	<u>5.04</u>	<u>5.09</u>		
Sp. Cond. (units: <u>Ms/cm</u> )	<u>0.031</u>	<u>0.031</u>	<u>0.031</u>	<u>0.032</u>		
Water Temp. (°C)	<u>17.40</u>	<u>17.48</u>	<u>17.70</u>	<u>17.92</u>		
TURBIDITY (ntu)	<u>934</u>	<u>618</u>	<u>9545 ML</u>	<u>453</u>	<u>291</u>	
ORP (mV)	<u>242.0</u>	<u>234.6</u>	<u>233.6</u>	<u>236.5</u>		
Dissolved Oxygen (mg/L)	<u>6.04</u>	<u>4.96</u>	<u>4.64</u>	<u>4.87</u>		
Salinity	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		
Water Level	<u>22.63</u>	<u>23.02</u>	<u>23.10</u>	<u>23.38</u>		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-15R

Site Name ITRON Greenwood, SC Facility

Date 4/10/19

Field Personnel Marc McFarland M. Law

Job # ~~60520033~~ 60601469

Weather Conditions Sunny

Air Temperature 68 °F

Total Well Depth (TWD) 49.2 1/100 ft

Depth to Ground Water (DGW) 33.86 1/100 ft

Length of Water Column (LWC) = TWD - DGW 15.34 1/100 ft

1 Casing Volume = LWC x 0.163 = 5.52 ~~7.50~~ gal

3 Casing Volumes 7.50 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 21.0 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW ~~MODERATE~~ HIGH \_\_\_\_\_

Remarks Sampled @ 1500

### FIELD ANALYSES

	0 Initial	~0.25	~0.5	~0.75		
VOLUME PURGED (gallons)	1840	1445	1450	1455		
TIME (military)	4:47	4:52	4:53	4:50		
PH (S.U.)	0.024	0.024	0.024	0.024		
Sp. Cond. (units: Ms/cm)	18.03	18.17	18.27	18.27		
Water Temp. (°C)	348	254	156	68.9		
TURBIDITY (ntu)	274.5	291.9	291.1	291.9		
ORP (mV)	8.20	7.55	7.21	7.68		
Dissolved Oxygen (mg/L)	-	-	-	-		
Salinity	36.35	37.04	37.55	37.66		
Water Level						

COMMENTS/OBSERVATIONS:

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-16

Site Name ITRON Greenwood, SC Facility

Date 4/9/19

Field Personnel Marc Morland McLaw

Job # 80520099 60601469

Weather Conditions Sunny

Air Temperature 68 °F

Total Well Depth (TWD) 36.3 1/100 ft

Depth to Ground Water (DGW) 22.57 1/100 ft

Length of Water Column (LWC) = TWD - DGW 13.73 1/100 ft

1 Casing Volume = LWC x 0.163 = 2.24 gal

3 Casing Volumes 6.72 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 0.75 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Baller YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1530

### FIELD ANALYSES

	0 In. <u>In. 1st</u>	~ 0.25	~ 0.5	~ 0.75		
VOLUME PURGED (gallons)						
TIME (military)	<u>1500</u>	<u>1505</u>	<u>1510</u>	<u>1515</u>		
PH (S.U.)	<u>5.55</u>	<u>5.58</u>	<u>5.60</u>	<u>5.56</u>		
Sp. Cond. (units: Ms/cm.)	<u>0.044</u>	<u>0.044</u>	<u>0.044</u>	<u>0.044</u>		
Water Temp. (°C)	<u>18.39</u>	<u>18.38</u>	<u>18.47</u>	<u>18.62</u>		
TURBIDITY (ntu)	<u>441</u>	<u>294</u>	<u>164</u>	<u>53.5</u>		
ORP (mV)	<u>252.0</u>	<u>251.2</u>	<u>248.8</u>	<u>246.0</u>		
Dissolved Oxygen (mg/L)	<u>6.90</u>	<u>6.47</u>	<u>6.53</u>	<u>6.39</u>		
Salinity	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		
Water Level	<u>23.70</u>	<u>24.07</u>	<u>24.11</u>	<u>24.15</u>		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-16D

Site Name ITRON Greenwood, SC Facility

Date 4/9/9

Field Personnel Aeron Council A. Law

Job # 60520033 60601469

Weather Conditions Sunny

Air Temperature 70 °F

Total Well Depth (TWD) 75.8 1/100 ft

Depth to Ground Water (DGW) 26.31 1/100 ft

Length of Water Column (LWC) = TWD - DGW 49.49 1/100 ft

1 Casing Volume = LWC x 0.163 = 8.06 gal

3 Casing Volumes 24.18 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 0.75 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Baller YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1600

### FIELD ANALYSES

	0 Initial	~ 9.25	~ 9.5	~ 9.75		
VOLUME PURGED (gallons)						
TIME (military)	1540	1545	1550	1555		
PH (S.U.)	5.83	5.85	5.90	5.85		
Sp. Cond. (units: Ms/cm.)	0.059	0.060	0.061	0.060		
Water Temp. (°C)	19.58	18.96	18.03	18.96		
TURBIDITY (ntu)	29.2	315	211	188		
ORP (mV)	259.5	253.4	247.8	247.7		
Dissolved Oxygen (mg/L)	7.07	6.24	6.21	6.20		
Salinity	-	-	-	-		
Water Level	27.62	28.02	28.16	28.43		

COMMENTS/OBSERVATIONS:

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-17

Site Name ITRON Greenwood, SC Facility

Date 4/10/2019

Field Personnel Aaron Council

Job # ~~60600003~~ 60601469

Weather Conditions Sunny

Air Temperature 78 °F

Total Well Depth (TWD) 45.3 1/100 ft

Depth to Ground Water (DGW) 26.10 1/100 ft

Length of Water Column (LWC) = TWD - DGW 19.20 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.13 gal

3 Casing Volumes 9.39 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 6 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1610

MS 1615

MSD 1620

### FIELD ANALYSES

	0	2	4.5	6		
VOLUME PURGED (gallons)						
TIME (military)	1550	1555	1600	1605		
PH (S.U.)	6.69	5.96	5.92	5.90		
Sp. Cond. (units: Ms/cm)	0.052	0.051	0.051	0.051		
Water Temp. (°C)	20.64	20.43	20.47	20.49		
TURBIDITY (ntu)	>1000	352	79.9	47.9		
ORP (mV)	128.8	138.1	136.6	135.8		
Dissolved Oxygen (mg/L)	7.03	5.71	5.69	5.68		
Salinity	—	—	—	—		
Water Level	26.10	29.34	29.39	29.55		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-18

Site Name ITRON Greenwood, SC Facility

Date 4/10/18

Field Personnel ~~Michael Law~~ M. Law

Job # 68820033 60601469

Weather Conditions Sunny

Air Temperature 76 °F

Total Well Depth (TWD) 39 1/100 ft

Depth to Ground Water (DGW) 18.50 1/100 ft

Length of Water Column (LWC) = TWD - DGW 20.50 1/100 ft

1 Casing Volume = LWC x 0.163 = 3.34 gal

3 Casing Volumes 10.02 gal = Standard Evacuation Volume

Method of Well Excavation ~~Permittive~~ <sup>Submersible</sup> Permittive Pump and Tubing

Method of Sample Collection ~~Permittive~~ <sup>Submersible</sup> Permittive Pump and Tubing

Total Volume of Water Removed 21.25 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Baller YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES X NO \_\_\_\_\_

Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1830

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Initial	~0.58	~0.75	~1.0		
TIME (military)	1605	1610	1615	1620		
PH (S.U.)	4.81	4.93	4.89	4.91		
Sp. Cond. (units: Ms/cm.)	0.046	0.047	0.047	0.047		
Water Temp. (°C)	22.23	22.25	22.35	22.39		
TURBIDITY (ntu)	71200	362	262	76.2		
ORP (mV)	239.0	230.8	227.3	224.7		
Dissolved Oxygen (mg/L)	6.11	5.15	5.64	5.52		
Salinity	—	—	—	—		
Water Level	21.56	22.74	23.10	23.61		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-19

Site Name ITRON Greenwood, SC Facility

Date 4/10/2019

Field Personnel Aaron Council

Job # ~~60520833~~ 60601469

Weather Conditions Sunny

Air Temperature 76 °F

Total Well Depth (TWD) 49.5 1/100 ft

Depth to Ground Water (DGW) 23.11 1/100 ft

Length of Water Column (LWC) = TWD - DGW 26.39 1/100 ft

1 Casing Volume = LWC x 0.163 = 4.30 gal

3 Casing Volumes 12.90 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible

Total Volume of Water Removed 5.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1400

DUP-2 collected @ 1405

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	2	4	5.5		
TIME (military)	1340	1345	1350	1355		
PH (S.U.)	6.92	6.03	6.01	6.03		
Sp. Cond. (units: Ms/cm )	0.045	0.045	0.044	0.044		
Water Temp. (°C)	16.89	17.03	16.92	16.87		
TURBIDITY (ntu)	>1000	>1000	275	174		
ORP (mV)	96.5	133.2	134.7	134.8		
Dissolved Oxygen (mg/L)	7.80	7.02	7.00	6.98		
Salinity	—	—	—	—		
Water Level	23.11	25.10	25.10	25.13		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-20

Site Name ITRON Greenwood, SC Facility

Date 4/11/2019

Field Personnel Aaron Council

Job # ~~60620033~~ 60601469

Weather Conditions Sunny

Air Temperature 62 °F

Total Well Depth (TWD) 59 1/100 ft

Depth to Ground Water (DGW) 23.47 1/100 ft

Length of Water Column (LWC) = TWD - DGW 35.53 1/100 ft

1 Casing Volume = LWC x 0.163 = 5.79 gal

3 Casing Volumes 17.37 gal = Standard Evacuation Volume

Method of Well Excavation Submersible Peristaltic Pump and Tubing

Method of Sample Collection Submersible Peristaltic Pump and Tubing

Total Volume of Water Removed 5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailer YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 0935

DUP-3 collected @ 0940

### FIELD ANALYSES

VOLUME PURGED (gallons)	0	1.5	3	5		
TIME (military)	0915	0920	0925	0930		
PH (S.U.)	6.95	6.22	6.19	6.21		
Sp. Cond. (units: Ms/cm )	0.082	0.079	0.080	0.079		
Water Temp. (°C)	15.93	16.14	16.30	16.31		
TURBIDITY (ntu)	294	102	113	82.1		
ORP (mV)	39.2	82.5	95.5	102.4		
Dissolved Oxygen (mg/L)	7.49	7.13	6.80	6.46		
Salinity	—	—	—	—		
Water Level	23.47	32.60	35.72	38.41		

COMMENTS/OBSERVATIONS: \_\_\_\_\_



## Field Data Information Log for Groundwater Sampling

Page 1 of 1

Well ID # MW-21

Site Name ITRON Greenwood, SC Facility

Date 4/9/19

Field Personnel ~~Aaron Smith~~ M. Law

Job # ~~60620093~~ 60601469

Weather Conditions Cloudy

Air Temperature 68 °F

Total Well Depth (TWD) 42.5 1/100 ft

Depth to Ground Water (DGW) 19.24 1/100 ft

Length of Water Column (LWC) = TWD - DGW 29.26 1/100 ft

1 Casing Volume = LWC x 0.163 = 4.77 gal

3 Casing Volumes 14.31 gal = Standard Evacuation Volume

Method of Well Excavation ~~Submersible~~ Peristaltic Pump and Tubing

Method of Sample Collection ~~Submersible~~ Peristaltic Pump and Tubing

Total Volume of Water Removed 0.75 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Baller YES \_\_\_\_\_ NO  Type \_\_\_\_\_

Locking Cap YES  NO \_\_\_\_\_

Well Integrity Satisfactory YES  NO \_\_\_\_\_

Well Yield LOW  MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1330

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Infil	~ 0.25	~ 0.5	~ 0.75		
TIME (military)	1330	1315	1320	1325		
PH (S.U.)	4.89	4.86	4.80	4.82		
Sp. Cond. (units: Ms/cm)	0.026	0.026	0.026	0.026		
Water Temp. (°C)	18.58	18.41	18.25	18.24		
TURBIDITY (ntu)	32.8	16.1	10.4	10.8		
ORP (mV)	259.3	269.1	275.3	273.2		
Dissolved Oxygen (mg/L)	6.43	5.46	5.52	5.25		
Salinity	-	-	-	-		
Water Level	14.45	15.03	15.30	15.52		

COMMENTS/OBSERVATIONS:

**Field Data Information Log for Groundwater Sampling**

Well ID # MW-22D

Site Name ITRON Greenwood, SC Facility

Date 4/10/2019

Field Personnel Aaron Council

Job # ~~80620088~~ 60601469

Weather Conditions Sunny

Air Temperature 76 °F

Total Well Depth (TWD) 79.9 1/100 ft

Depth to Ground Water (DGW) 27.88 1/100 ft

Length of Water Column (LWC) = TWD - DGW 52.02 1/100 ft

1 Casing Volume = LWC x 0.163 = 8.48 gal

3 Casing Volumes 25.44 gal = Standard Evacuation Volume

Method of Well Excavation ~~Peristaltic Pump and Tubing~~ Submersible

Method of Sample Collection ~~Peristaltic Pump and Tubing~~ Submersible

Total Volume of Water Removed 5.5 gallons

Casing Diameter 2.0 Inches

Casing Material PVC

Measuring Point Elevation \_\_\_\_\_ 1/100 ft

Land Surface Elevation \_\_\_\_\_ 1/100 ft

Screened Interval \_\_\_\_\_ 1/100 ft

Dedicated Pump or Bailor YES \_\_\_\_\_ NO X Type \_\_\_\_\_

Locking Cap YES X NO \_\_\_\_\_

Well Integrity Satisfactory YES \_\_\_\_\_ NO \_\_\_\_\_

Well Yield LOW \_\_\_\_\_ MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_

Remarks Sampled @ 1500

**FIELD ANALYSES**

	0	2.5	4	5.5		
VOLUME PURGED (gallons)						
TIME (military)	1444	1449	1454	1459		
PH (S.U.)	6.48	6.10	6.35	6.39		
Sp. Cond. (units: Ms/cm)	0.057	0.057	0.058	0.058		
Water Temp. (°C)	16.25	16.46	16.96	17.27		
TURBIDITY (ntu)	41.4	249	278	637		
ORP (mV)	125.0	141.9	126.0	122.2		
Dissolved Oxygen (mg/L)	4.14	2.95	2.77	2.83		
Salinity	-	-	-	-		
Water Level	27.88	51.02	52.64	54.03		

COMMENTS/OBSERVATIONS: \_\_\_\_\_

1" - 0.041, 2" - 0.163, 3" - 0.367, 4" - 0.653, 6" - 1.469, 8" - 2.611

## Field Data Information Log for Groundwater Sampling

Well ID # MW-23  
 Site Name ITRON Greenwood, SC Facility  
 Date 4/11/19  
 Field Personnel ~~Aaron Council~~ A. Law / A. Council  
 Job # ~~00520098~~ 60601469  
 Weather Conditions P. Cloudy  
 Air Temperature 53 °F  
 Total Well Depth (TWD) 60' 1/100 ft  
 Depth to Ground Water (DGW) 29.13 1/100 ft  
 Length of Water Column (LWC) = TWD - DGW 39.87 1/100 ft  
 1 Casing Volume = LWC x 0.163 = 6.50 gal  
 3 Casing Volumes 19.50 gal = Standard Evacuation Volume  
 Method of Well Excavation ~~Batter~~ Submersible pump  
 Method of Sample Collection ~~Batter~~ Submersible pump  
 Total Volume of Water Removed 21.5 gallons

Casing Diameter 2.0 Inches  
 Casing Material PVC  
 Measuring Point Elevation \_\_\_\_\_ 1/100 ft  
 Land Surface Elevation \_\_\_\_\_ 1/100 ft  
 Screened Interval \_\_\_\_\_ 1/100 ft  
 Dedicated Pump or Bailor YES \_\_\_\_\_ NO X Type \_\_\_\_\_  
 Locking Cap YES X NO \_\_\_\_\_  
 Well Integrity Satisfactory YES X NO \_\_\_\_\_  
 Well Yield LOW X MODERATE \_\_\_\_\_ HIGH \_\_\_\_\_  
 Remarks Sample @ 11:00

### FIELD ANALYSES

VOLUME PURGED (gallons)	0 Initial	~ 0.25	~ 0.5	~ 0.75	~ 1.0
TIME (military)	1935	1940	1945	1950	1955
PH (S.U.)	5.74	5.73	5.78	5.79	5.80
Sp. Cond. (units: Ms/cm)	0.149	0.158	0.158	0.158	0.158
Water Temp. (°C)	17.47	17.47	17.51	17.67	17.62
TURBIDITY (ntu)	> 1200	> 1200	> 1200	> 1200	> 1200
ORP (mV)	75.0	115.4	76.4	73.7	72.8
Dissolved Oxygen (mg/L)	1.39	1.25	1.49	1.20	1.31
Salinity	—	—	—	—	—
Water Level	23.62	24.31	25.45	26.12	27.24

COMMENTS/OBSERVATIONS:

**APPENDIX B**  
**ANALYTICAL LABORATORY REPORTS**

# SHEALY ENVIRONMENTAL SERVICES, INC.

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## Report of Analysis

### AECOM

10 Patewood Drive  
Building 6, Suite 500  
Greenville, SC 29615  
Attention: Aaron Council

Project Name: Itron Greenwood

Project Number: 60601469.2

Lot Number: **UD10063**

Date Completed: 04/16/2019



04/22/2019 2:49 PM

Approved and released by:  
Lab Director - Greenville: Lucas Odom



The electronic signature above is the equivalent of a handwritten signature.  
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Shealy Environmental Services, Inc.  
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 [www.shealylab.com](http://www.shealylab.com)

# SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

**Case Narrative**  
**AECOM**  
**Lot Number: UD10063**

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

# SHEALY ENVIRONMENTAL SERVICES, INC.

## Sample Summary

AECOM

Lot Number: UD10063

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-2	Aqueous	04/09/2019 1740	04/10/2019
002	MW-8	Aqueous	04/09/2019 1555	04/10/2019
003	MW-9	Aqueous	04/09/2019 1310	04/10/2019
004	MW-9D	Aqueous	04/09/2019 1205	04/10/2019
005	MW-10D	Aqueous	04/09/2019 1100	04/10/2019
006	MW-10I	Aqueous	04/09/2019 1100	04/10/2019
007	MW-10R	Aqueous	04/09/2019 1200	04/10/2019
008	MW-11	Aqueous	04/09/2019 1445	04/10/2019
009	MW-14	Aqueous	04/09/2019 1240	04/10/2019
010	MW-16	Aqueous	04/09/2019 1520	04/10/2019
011	MW-16D	Aqueous	04/09/2019 1600	04/10/2019
012	MW-21	Aqueous	04/09/2019 1330	04/10/2019
013	DUP-1	Aqueous	04/09/2019 1600	04/10/2019
014	EB-1	Aqueous	04/09/2019 1235	04/10/2019
015	MW-3	Aqueous	04/10/2019 0900	04/10/2019
016	MW-6	Aqueous	04/10/2019 1000	04/10/2019
017	MW-7	Aqueous	04/10/2019 1020	04/10/2019
018	MW-5	Aqueous	04/10/2019 1155	04/10/2019
019	MW-5D	Aqueous	04/10/2019 1150	04/10/2019
020	TRIP BLANK	Aqueous	04/09/2019	04/10/2019

(20 samples)

# SHEALY ENVIRONMENTAL SERVICES, INC.

## Detection Summary

AECOM

Lot Number: UD10063

Sample ID	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-2	Aqueous	Nitrate - N	9056A	2.6		mg/L	6
001	MW-2	Aqueous	Sulfate	9056A	0.41	J	mg/L	6
001	MW-2	Aqueous	Isopropylbenzene	8260B	1.7		ug/L	7
001	MW-2	Aqueous	Tetrachloroethene	8260B	5.2		ug/L	7
001	MW-2	Aqueous	Xylenes (total)	8260B	15		ug/L	7
002	MW-8	Aqueous	Nitrate - N	9056A	1.0		mg/L	8
002	MW-8	Aqueous	Sulfate	9056A	0.57	J	mg/L	8
002	MW-8	Aqueous	Tetrachloroethene	8260B	18000		ug/L	9
003	MW-9	Aqueous	Nitrate - N	9056A	0.85		mg/L	10
003	MW-9	Aqueous	Sulfate	9056A	0.52	J	mg/L	10
003	MW-9	Aqueous	Acetone	8260B	2.0	J	ug/L	10
003	MW-9	Aqueous	Tetrachloroethene	8260B	7.2		ug/L	11
004	MW-9D	Aqueous	Nitrate - N	9056A	0.12		mg/L	12
004	MW-9D	Aqueous	Sulfate	9056A	3.4		mg/L	12
004	MW-9D	Aqueous	Acetone	8260B	3.1	J	ug/L	12
004	MW-9D	Aqueous	Tetrachloroethene	8260B	15		ug/L	13
005	MW-10D	Aqueous	Nitrate - N	9056A	0.77		mg/L	14
005	MW-10D	Aqueous	Sulfate	9056A	6.5		mg/L	14
005	MW-10D	Aqueous	Acetone	8260B	3.3	J	ug/L	14
005	MW-10D	Aqueous	Tetrachloroethene	8260B	3.0		ug/L	15
006	MW-10I	Aqueous	Nitrate - N	9056A	1.5		mg/L	16
006	MW-10I	Aqueous	Sulfate	9056A	0.56	J	mg/L	16
006	MW-10I	Aqueous	Tetrachloroethene	8260B	14000		ug/L	17
007	MW-10R	Aqueous	Nitrate - N	9056A	0.87		mg/L	18
007	MW-10R	Aqueous	Sulfate	9056A	0.26	J	mg/L	18
007	MW-10R	Aqueous	Tetrachloroethene	8260B	6000		ug/L	19
008	MW-11	Aqueous	Nitrate - N	9056A	0.46		mg/L	20
008	MW-11	Aqueous	Tetrachloroethene	8260B	2.7		ug/L	21
009	MW-14	Aqueous	Nitrate - N	9056A	0.62		mg/L	22
009	MW-14	Aqueous	Acetone	8260B	2.5	J	ug/L	22
009	MW-14	Aqueous	1,1-Dichloroethane	8260B	0.71	J	ug/L	22
009	MW-14	Aqueous	cis-1,2-Dichloroethene	8260B	0.42	J	ug/L	22
009	MW-14	Aqueous	Tetrachloroethene	8260B	170		ug/L	23
009	MW-14	Aqueous	Trichloroethene	8260B	0.84	J	ug/L	23
010	MW-16	Aqueous	Nitrate - N	9056A	0.39		mg/L	24
010	MW-16	Aqueous	Tetrachloroethene	8260B	780		ug/L	25
011	MW-16D	Aqueous	Nitrate - N	9056A	0.77		mg/L	26
011	MW-16D	Aqueous	Sulfate	9056A	0.25	J	mg/L	26
011	MW-16D	Aqueous	Acetone	8260B	2.3	J	ug/L	26
011	MW-16D	Aqueous	Tetrachloroethene	8260B	18		ug/L	27
012	MW-21	Aqueous	Nitrate - N	9056A	0.39		mg/L	28
012	MW-21	Aqueous	Tetrachloroethene	8260B	2.5		ug/L	29
013	DUP-1	Aqueous	Nitrate - N	9056A	1.0		mg/L	30
013	DUP-1	Aqueous	Sulfate	9056A	0.60	J	mg/L	30
013	DUP-1	Aqueous	Tetrachloroethene	8260B	20000		ug/L	31



# Detection Summary (Continued)

Lot Number: UD10063

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
014	EB-1	Aqueous	Acetone	8260B	2.3	J	ug/L	32
015	MW-3	Aqueous	Sulfate	9056A	4.7		mg/L	34
015	MW-3	Aqueous	Benzene	8260B	7.5		ug/L	34
015	MW-3	Aqueous	cis-1,2-Dichloroethene	8260B	230		ug/L	34
015	MW-3	Aqueous	Ethylbenzene	8260B	14		ug/L	34
015	MW-3	Aqueous	Isopropylbenzene	8260B	19		ug/L	35
015	MW-3	Aqueous	Methylcyclohexane	8260B	3.2	J	ug/L	35
015	MW-3	Aqueous	Tetrachloroethene	8260B	63		ug/L	35
015	MW-3	Aqueous	Toluene	8260B	2.5	J	ug/L	35
015	MW-3	Aqueous	Trichloroethene	8260B	2.5	J	ug/L	35
015	MW-3	Aqueous	Xylenes (total)	8260B	91		ug/L	35
016	MW-6	Aqueous	Nitrate - N	9056A	0.38		mg/L	36
016	MW-6	Aqueous	Sulfate	9056A	0.20	J	mg/L	36
016	MW-6	Aqueous	Tetrachloroethene	8260B	4300		ug/L	37
017	MW-7	Aqueous	Nitrate - N	9056A	1.3		mg/L	38
017	MW-7	Aqueous	Sulfate	9056A	0.32	J	mg/L	38
017	MW-7	Aqueous	Tetrachloroethene	8260B	95000		ug/L	39
018	MW-5	Aqueous	Nitrate - N	9056A	2.0		mg/L	40
018	MW-5	Aqueous	Sulfate	9056A	2.8		mg/L	40
018	MW-5	Aqueous	Tetrachloroethene	8260B	2700		ug/L	41
019	MW-5D	Aqueous	Sulfate	9056A	0.49	J	mg/L	42
019	MW-5D	Aqueous	Acetone	8260B	2.2	J	ug/L	42
019	MW-5D	Aqueous	cis-1,2-Dichloroethene	8260B	170		ug/L	42
019	MW-5D	Aqueous	Tetrachloroethene	8260B	21		ug/L	43
019	MW-5D	Aqueous	Trichloroethene	8260B	2.4		ug/L	43

(70 detections)

## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0057	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0057	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	2.6		0.020	0.0050	mg/L	1
Sulfate		9056A	0.41	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1529	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/12/2019 1529	BWS		13178		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	1.7		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	5.2		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	15		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		100	70-130						
Bromofluorobenzene		102	70-130						
Toluene-d8		105	70-130						

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0113	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0113	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.0		0.020	0.0050	mg/L	1
Sulfate		9056A	0.57	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	04/12/2019 1753	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		10000	1000	ug/L	1
Benzene	71-43-2	8260B	ND		500	200	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		500	200	ug/L	1
Bromoform	75-25-2	8260B	ND		500	200	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		1000	200	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		5000	1000	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		500	200	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		500	200	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		500	200	ug/L	1
Chloroethane	75-00-3	8260B	ND		1000	200	ug/L	1
Chloroform	67-66-3	8260B	ND		500	200	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		500	250	ug/L	1
Cyclohexane	110-82-7	8260B	ND		500	200	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		500	200	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		500	200	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		500	200	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		500	200	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		500	200	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		500	200	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		1000	300	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		500	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	200	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		500	200	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		500	200	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		500	200	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		500	200	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		500	200	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		500	200	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		500	200	ug/L	1
2-Hexanone	591-78-6	8260B	ND		5000	1000	ug/L	1

LOQ = Limit of Quantitation

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E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	500	04/12/2019 1753	BWS		13178		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		500	200	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		500	200	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	200	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		5000	1000	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		2500	200	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		500	200	ug/L	1	
Styrene	100-42-5	8260B	ND		500	210	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		500	200	ug/L	1	
Tetrachloroethene	127-18-4	8260B	18000		500	200	ug/L	1	
Toluene	108-88-3	8260B	ND		500	200	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		500	210	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		500	200	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		500	200	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		500	200	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		500	200	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		500	200	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		500	200	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		500	200	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		105	70-130						
Bromofluorobenzene		100	70-130						
Toluene-d8		106	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0129	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0129	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.85		0.020	0.0050	mg/L	1
Sulfate		9056A	0.52	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1551	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

Shealy Environmental Services, Inc.

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1551	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	7.2		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0146	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0146	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.12		0.020	0.0050	mg/L	1
Sulfate		9056A	3.4		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1626	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.1	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-9D  
 Date Sampled: 04/09/2019 1205  
 Date Received: 04/10/2019

Laboratory ID: UD10063-004  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1626	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	15		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-10D  
 Date Sampled: 04/09/2019 1100  
 Date Received: 04/10/2019

Laboratory ID: UD10063-005  
 Matrix: Aqueous

### Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0202	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0202	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.77		0.020	0.0050	mg/L	1
Sulfate		9056A	6.5		1.0	0.20	mg/L	1

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1648	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-10D  
 Date Sampled: 04/09/2019 1100  
 Date Received: 04/10/2019

Laboratory ID: UD10063-005  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch			
1	5030B	8260B	1	04/12/2019 1648	BWS		13178			

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	3.0		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0218	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0218	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.5		0.020	0.0050	mg/L	1
Sulfate		9056A	0.56	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	04/12/2019 1815	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		4000	400	ug/L	1
Benzene	71-43-2	8260B	ND		200	80	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		200	80	ug/L	1
Bromoform	75-25-2	8260B	ND		200	80	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		400	80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		2000	400	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		200	80	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		200	80	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		200	80	ug/L	1
Chloroethane	75-00-3	8260B	ND		400	80	ug/L	1
Chloroform	67-66-3	8260B	ND		200	80	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		200	100	ug/L	1
Cyclohexane	110-82-7	8260B	ND		200	80	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		200	80	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		200	80	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		200	80	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		200	80	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		200	80	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		200	80	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		400	120	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		200	80	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		200	80	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		200	80	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		200	80	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		200	80	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		200	80	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		200	80	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		200	80	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		200	80	ug/L	1
2-Hexanone	591-78-6	8260B	ND		2000	400	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

Shealy Environmental Services, Inc.

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	200	04/12/2019 1815	BWS		13178		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		200	80	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		200	80	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		200	80	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		2000	400	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		1000	80	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		200	80	ug/L	1	
Styrene	100-42-5	8260B	ND		200	82	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		200	80	ug/L	1	
Tetrachloroethene	127-18-4	8260B	14000		200	80	ug/L	1	
Toluene	108-88-3	8260B	ND		200	80	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		200	84	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		200	80	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		200	80	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		200	80	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		200	80	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		200	80	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		200	80	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		200	80	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		103	70-130						
Bromofluorobenzene		98	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0234	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0234	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.87		0.020	0.0050	mg/L	1
Sulfate		9056A	0.26	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	04/12/2019 1837	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		2000	200	ug/L	1
Benzene	71-43-2	8260B	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	40	ug/L	1
Bromoform	75-25-2	8260B	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260B	ND		200	40	ug/L	1
Chloroform	67-66-3	8260B	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		100	40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		1000	200	ug/L	1

LOQ = Limit of Quantitation

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E = Quantitation of compound exceeded the calibration range

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ND = Not detected at or above the DL

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P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	100	04/12/2019 1837	BWS		13178		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		100	40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		100	40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		1000	200	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		500	40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		100	40	ug/L	1	
Styrene	100-42-5	8260B	ND		100	41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	6000		100	40	ug/L	1	
Toluene	108-88-3	8260B	ND		100	40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		100	40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		100	40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		100	40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		100	40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		106	70-130						
Bromofluorobenzene		100	70-130						
Toluene-d8		105	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0251	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0251	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.46		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 1710	BWS		13178

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/12/2019 1710	BWS		13178		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	2.7		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		102	70-130						
Bromofluorobenzene		100	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

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ND = Not detected at or above the DL

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P = The RPD between two GC columns exceeds 40%

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0307	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0307	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.62		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 1957	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.5	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.71	J	1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.42	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

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Client: AECOM  
 Description: MW-14  
 Date Sampled: 04/09/2019 1240  
 Date Received: 04/10/2019

Laboratory ID: UD10063-009  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 1957	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.84	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0355	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0355	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.39		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	04/16/2019 0620	KGT		13455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	2
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	2
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	2
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	2
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	2

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

Shealy Environmental Services, Inc.

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Client: AECOM  
 Description: MW-16  
 Date Sampled: 04/09/2019 1520  
 Date Received: 04/10/2019

Laboratory ID: UD10063-010  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	04/16/2019 0620	KGT		13455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	2
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	780		10	4.0	ug/L	2
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-16D  
 Date Sampled: 04/09/2019 1600  
 Date Received: 04/10/2019

Laboratory ID: UD10063-011  
 Matrix: Aqueous

### Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0412	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0412	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.77		0.020	0.0050	mg/L	1
Sulfate		9056A	0.25	J	1.0	0.20	mg/L	1

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 0032	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-16D  
 Date Sampled: 04/09/2019 1600  
 Date Received: 04/10/2019

Laboratory ID: UD10063-011  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 0032	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	18		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0428	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0428	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.39		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 0054	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/13/2019 0054	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	2.5		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		104	70-130						
Bromofluorobenzene		97	70-130						
Toluene-d8		103	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0444	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0444	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.0		0.020	0.0050	mg/L	1
Sulfate		9056A	0.60	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	200	04/16/2019 0642	KGT		13455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		4000	400	ug/L	2
Benzene	71-43-2	8260B	ND		200	80	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		200	80	ug/L	2
Bromoform	75-25-2	8260B	ND		200	80	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		400	80	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		2000	400	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		200	80	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		200	80	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		200	80	ug/L	2
Chloroethane	75-00-3	8260B	ND		400	80	ug/L	2
Chloroform	67-66-3	8260B	ND		200	80	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		200	100	ug/L	2
Cyclohexane	110-82-7	8260B	ND		200	80	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		200	80	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		200	80	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		200	80	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		200	80	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		200	80	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		200	80	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		400	120	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		200	80	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		200	80	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		200	80	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		200	80	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		200	80	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		200	80	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		200	80	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		200	80	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		200	80	ug/L	2
2-Hexanone	591-78-6	8260B	ND		2000	400	ug/L	2

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
2	5030B	8260B	200	04/16/2019 0642	KGT		13455		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		200	80	ug/L	2	
Methyl acetate	79-20-9	8260B	ND		200	80	ug/L	2	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		200	80	ug/L	2	
4-Methyl-2-pentanone	108-10-1	8260B	ND		2000	400	ug/L	2	
Methylcyclohexane	108-87-2	8260B	ND		1000	80	ug/L	2	
Methylene chloride	75-09-2	8260B	ND		200	80	ug/L	2	
Styrene	100-42-5	8260B	ND		200	82	ug/L	2	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		200	80	ug/L	2	
Tetrachloroethene	127-18-4	8260B	20000		200	80	ug/L	2	
Toluene	108-88-3	8260B	ND		200	80	ug/L	2	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		200	84	ug/L	2	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		200	80	ug/L	2	
1,1,1-Trichloroethane	71-55-6	8260B	ND		200	80	ug/L	2	
1,1,2-Trichloroethane	79-00-5	8260B	ND		200	80	ug/L	2	
Trichloroethene	79-01-6	8260B	ND		200	80	ug/L	2	
Trichlorofluoromethane	75-69-4	8260B	ND		200	80	ug/L	2	
Vinyl chloride	75-01-4	8260B	ND		200	80	ug/L	2	
Xylenes (total)	1330-20-7	8260B	ND		200	80	ug/L	2	
Surrogate	Q	Run 2 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		111	70-130						
Bromofluorobenzene		96	70-130						
Toluene-d8		103	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0500	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0500	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	ND		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/12/2019 2243	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

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ND = Not detected at or above the DL

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P = The RPD between two GC columns exceeds 40%

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/12/2019 2243	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		105	70-130						
Bromofluorobenzene		101	70-130						
Toluene-d8		106	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0516	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0516	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	ND		0.020	0.0050	mg/L	1
Sulfate		9056A	4.7		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	04/13/2019 0243	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	7.5		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	230		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	14		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	5	04/13/2019 0243	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	19		5.0	2.0	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1	
Methylcyclohexane	108-87-2	8260B	3.2	J	25	2.0	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1	
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1	
Tetrachloroethene	127-18-4	8260B	63		5.0	2.0	ug/L	1	
Toluene	108-88-3	8260B	2.5	J	5.0	2.0	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1	
Trichloroethene	79-01-6	8260B	2.5	J	5.0	2.0	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1	
Xylenes (total)	1330-20-7	8260B	91		5.0	2.0	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		100	70-130						
Bromofluorobenzene		101	70-130						
Toluene-d8		103	70-130						

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0533	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0533	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.38		0.020	0.0050	mg/L	1
Sulfate		9056A	0.20	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	04/13/2019 0305	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		2000	200	ug/L	1
Benzene	71-43-2	8260B	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	40	ug/L	1
Bromoform	75-25-2	8260B	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260B	ND		200	40	ug/L	1
Chloroform	67-66-3	8260B	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		100	40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		1000	200	ug/L	1

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	100	04/13/2019 0305	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		100	40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		100	40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		1000	200	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		500	40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		100	40	ug/L	1	
Styrene	100-42-5	8260B	ND		100	41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	4300		100	40	ug/L	1	
Toluene	108-88-3	8260B	ND		100	40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		100	40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		100	40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		100	40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		100	40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		106	70-130						
Bromofluorobenzene		99	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0549	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0549	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.3		0.020	0.0050	mg/L	1
Sulfate		9056A	0.32	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	2000	04/13/2019 0538	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		40000	4000	ug/L	1
Benzene	71-43-2	8260B	ND		2000	800	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		2000	800	ug/L	1
Bromoform	75-25-2	8260B	ND		2000	800	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4000	800	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		20000	4000	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		2000	800	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		2000	800	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		2000	800	ug/L	1
Chloroethane	75-00-3	8260B	ND		4000	800	ug/L	1
Chloroform	67-66-3	8260B	ND		2000	800	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		2000	1000	ug/L	1
Cyclohexane	110-82-7	8260B	ND		2000	800	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		2000	800	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		2000	800	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		2000	800	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		2000	800	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		2000	800	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		2000	800	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4000	1200	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		2000	800	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2000	800	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		2000	800	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		2000	800	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		2000	800	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		2000	800	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		2000	800	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		2000	800	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		2000	800	ug/L	1
2-Hexanone	591-78-6	8260B	ND		20000	4000	ug/L	1

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	2000	04/13/2019 0538	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		2000	800	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		2000	800	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2000	800	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		20000	4000	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		10000	800	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		2000	800	ug/L	1	
Styrene	100-42-5	8260B	ND		2000	820	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		2000	800	ug/L	1	
Tetrachloroethene	127-18-4	8260B	95000		2000	800	ug/L	1	
Toluene	108-88-3	8260B	ND		2000	800	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		2000	840	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		2000	800	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		2000	800	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		2000	800	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		2000	800	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		2000	800	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		2000	800	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		2000	800	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		103	70-130						
Bromofluorobenzene		104	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0605	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0605	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	2.0		0.020	0.0050	mg/L	1
Sulfate		9056A	2.8		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	04/13/2019 0327	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	50	04/13/2019 0327	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1	
Styrene	100-42-5	8260B	ND		50	21	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1	
Tetrachloroethene	127-18-4	8260B	2700		50	20	ug/L	1	
Toluene	108-88-3	8260B	ND		50	20	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		105	70-130						
Bromofluorobenzene		98	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/11/2019 0621	HKL		12930
1		(Sulfate) 9056A	1	04/11/2019 0621	HKL		12931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	ND		0.020	0.0050	mg/L	1
Sulfate		9056A	0.49	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 0116	STM		13252

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.2	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	170		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/13/2019 0116	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	21		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	2.4		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		103	70-130						
Bromofluorobenzene		99	70-130						
Toluene-d8		102	70-130						

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/12/2019 2327	STM		13252		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1	
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1	
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1	
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1	
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1	
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1	
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1	
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1	
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1	
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1	
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1	
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1	
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1	
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1	
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1	
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1	
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1	
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1	
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1	
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1	
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1	
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1	
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1	
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1	
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/12/2019 2327	STM		13252		
Parameter		CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane		76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene		120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane		71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane		79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene		79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane		75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride		75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)		1330-20-7	8260B	ND		1.0	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		102	70-130						
Bromofluorobenzene		102	70-130						
Toluene-d8		105	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## QC Summary

# Inorganic non-metals - MB

Sample ID: UQ12930-001

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0050	mg/L	04/11/2019 0025

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ12930-002

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	80-120	04/11/2019 0041

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD10063-018MS

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	2.0	0.80	2.8		1	100	80-120	04/11/2019 0710

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD10063-018MD

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	2.0	0.80	2.8		1	100	0.00	80-120	20	04/11/2019 0726

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD10063-019MS

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.77		1	96	80-120	04/11/2019 0742

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD10063-019MD

Matrix: Aqueous

Batch: 12930

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.77		1	96	0.00	80-120	20	04/11/2019 0759

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MB

Sample ID: UQ12931-001

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/11/2019 0025

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ12931-002

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	80-120	04/11/2019 0041

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD10063-018MS

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	2.8	20	22		1	95	80-120	04/11/2019 0710

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD10063-018MD

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	2.8	20	22		1	97	1.4	80-120	20	04/11/2019 0726

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD10063-019MS

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.49	20	19		1	94	80-120	04/11/2019 0742

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD10063-019MD

Matrix: Aqueous

Batch: 12931

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.49	20	19		1	94	0.00	80-120	20	04/11/2019 0759

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13178-001

Matrix: Aqueous

Batch: 13178

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/12/2019 1049
Benzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Bromoform	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/12/2019 1049
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/12/2019 1049
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Chloroethane	ND		1	2.0	0.40	ug/L	04/12/2019 1049
Chloroform	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/12/2019 1049
Cyclohexane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/12/2019 1049
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
2-Hexanone	ND		1	10	2.0	ug/L	04/12/2019 1049
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Methyl acetate	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/12/2019 1049
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/12/2019 1049
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/12/2019 1049
Methylene chloride	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Styrene	ND		1	1.0	0.41	ug/L	04/12/2019 1049
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Toluene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/12/2019 1049
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13178-001

Matrix: Aqueous

Batch: 13178

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/12/2019 1049
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		105	70-130				
Bromofluorobenzene		103	70-130				
Toluene-d8		108	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13178-002

Matrix: Aqueous

Batch: 13178

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	60-140	04/12/2019 0943
Benzene	50	51		1	102	70-130	04/12/2019 0943
Bromodichloromethane	50	51		1	101	70-130	04/12/2019 0943
Bromoform	50	48		1	96	70-130	04/12/2019 0943
Bromomethane (Methyl bromide)	50	48		1	96	70-130	04/12/2019 0943
2-Butanone (MEK)	100	110		1	106	70-130	04/12/2019 0943
Carbon disulfide	50	46		1	93	70-130	04/12/2019 0943
Carbon tetrachloride	50	50		1	101	70-130	04/12/2019 0943
Chlorobenzene	50	49		1	98	70-130	04/12/2019 0943
Chloroethane	50	56		1	112	70-130	04/12/2019 0943
Chloroform	50	48		1	96	70-130	04/12/2019 0943
Chloromethane (Methyl chloride)	50	42		1	84	60-140	04/12/2019 0943
Cyclohexane	50	53		1	106	70-130	04/12/2019 0943
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	101	70-130	04/12/2019 0943
Dibromochloromethane	50	51		1	103	70-130	04/12/2019 0943
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	04/12/2019 0943
1,2-Dichlorobenzene	50	49		1	97	70-130	04/12/2019 0943
1,3-Dichlorobenzene	50	50		1	100	70-130	04/12/2019 0943
1,4-Dichlorobenzene	50	48		1	96	70-130	04/12/2019 0943
Dichlorodifluoromethane	50	46		1	93	60-140	04/12/2019 0943
1,1-Dichloroethane	50	51		1	101	70-130	04/12/2019 0943
1,2-Dichloroethane	50	55		1	110	70-130	04/12/2019 0943
1,1-Dichloroethene	50	53		1	106	70-130	04/12/2019 0943
cis-1,2-Dichloroethene	50	50		1	99	70-130	04/12/2019 0943
trans-1,2-Dichloroethene	50	50		1	101	70-130	04/12/2019 0943
1,2-Dichloropropane	50	52		1	104	70-130	04/12/2019 0943
cis-1,3-Dichloropropene	50	53		1	107	70-130	04/12/2019 0943
trans-1,3-Dichloropropene	50	51		1	103	70-130	04/12/2019 0943
Ethylbenzene	50	52		1	104	70-130	04/12/2019 0943
2-Hexanone	100	100		1	103	70-130	04/12/2019 0943
Isopropylbenzene	50	52		1	105	70-130	04/12/2019 0943
Methyl acetate	50	53		1	106	70-130	04/12/2019 0943
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	04/12/2019 0943
4-Methyl-2-pentanone	100	100		1	101	70-130	04/12/2019 0943
Methylcyclohexane	50	56		1	111	70-130	04/12/2019 0943
Methylene chloride	50	50		1	99	70-130	04/12/2019 0943
Styrene	50	52		1	104	70-130	04/12/2019 0943
1,1,2,2-Tetrachloroethane	50	52		1	105	70-130	04/12/2019 0943
Tetrachloroethene	50	51		1	102	70-130	04/12/2019 0943
Toluene	50	51		1	103	70-130	04/12/2019 0943
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	04/12/2019 0943
1,2,4-Trichlorobenzene	50	46		1	92	70-130	04/12/2019 0943
1,1,1-Trichloroethane	50	51		1	101	70-130	04/12/2019 0943
1,1,2-Trichloroethane	50	53		1	107	70-130	04/12/2019 0943

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13178-002

Matrix: Aqueous

Batch: 13178

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	04/12/2019 0943
Trichlorofluoromethane	50	55		1	111	70-130	04/12/2019 0943
Vinyl chloride	50	43		1	86	70-130	04/12/2019 0943
Xylenes (total)	100	100		1	104	70-130	04/12/2019 0943
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		106	70-130				
Bromofluorobenzene		105	70-130				
Toluene-d8		107	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13252-001

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/12/2019 2206
Benzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Bromoform	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/12/2019 2206
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/12/2019 2206
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Chloroethane	ND		1	2.0	0.40	ug/L	04/12/2019 2206
Chloroform	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/12/2019 2206
Cyclohexane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/12/2019 2206
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
2-Hexanone	ND		1	10	2.0	ug/L	04/12/2019 2206
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Methyl acetate	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/12/2019 2206
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/12/2019 2206
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/12/2019 2206
Methylene chloride	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Styrene	ND		1	1.0	0.41	ug/L	04/12/2019 2206
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Toluene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/12/2019 2206
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13252-001

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/12/2019 2206
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		105	70-130				
Bromofluorobenzene		101	70-130				
Toluene-d8		103	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13252-002

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	96		1	96	60-140	04/12/2019 2110
Benzene	50	51		1	102	70-130	04/12/2019 2110
Bromodichloromethane	50	50		1	100	70-130	04/12/2019 2110
Bromoform	50	48		1	96	70-130	04/12/2019 2110
Bromomethane (Methyl bromide)	50	51		1	101	70-130	04/12/2019 2110
2-Butanone (MEK)	100	100		1	101	70-130	04/12/2019 2110
Carbon disulfide	50	47		1	94	70-130	04/12/2019 2110
Carbon tetrachloride	50	49		1	97	70-130	04/12/2019 2110
Chlorobenzene	50	50		1	99	70-130	04/12/2019 2110
Chloroethane	50	57		1	114	70-130	04/12/2019 2110
Chloroform	50	49		1	97	70-130	04/12/2019 2110
Chloromethane (Methyl chloride)	50	47		1	93	60-140	04/12/2019 2110
Cyclohexane	50	49		1	99	70-130	04/12/2019 2110
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	99	70-130	04/12/2019 2110
Dibromochloromethane	50	51		1	101	70-130	04/12/2019 2110
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	04/12/2019 2110
1,2-Dichlorobenzene	50	49		1	98	70-130	04/12/2019 2110
1,3-Dichlorobenzene	50	50		1	99	70-130	04/12/2019 2110
1,4-Dichlorobenzene	50	48		1	96	70-130	04/12/2019 2110
Dichlorodifluoromethane	50	47		1	94	60-140	04/12/2019 2110
1,1-Dichloroethane	50	51		1	101	70-130	04/12/2019 2110
1,2-Dichloroethane	50	54		1	109	70-130	04/12/2019 2110
1,1-Dichloroethene	50	49		1	99	70-130	04/12/2019 2110
cis-1,2-Dichloroethene	50	50		1	99	70-130	04/12/2019 2110
trans-1,2-Dichloroethene	50	51		1	102	70-130	04/12/2019 2110
1,2-Dichloropropane	50	52		1	104	70-130	04/12/2019 2110
cis-1,3-Dichloropropene	50	53		1	106	70-130	04/12/2019 2110
trans-1,3-Dichloropropene	50	52		1	103	70-130	04/12/2019 2110
Ethylbenzene	50	53		1	105	70-130	04/12/2019 2110
2-Hexanone	100	97		1	97	70-130	04/12/2019 2110
Isopropylbenzene	50	54		1	107	70-130	04/12/2019 2110
Methyl acetate	50	52		1	104	70-130	04/12/2019 2110
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	04/12/2019 2110
4-Methyl-2-pentanone	100	99		1	99	70-130	04/12/2019 2110
Methylcyclohexane	50	51		1	102	70-130	04/12/2019 2110
Methylene chloride	50	49		1	98	70-130	04/12/2019 2110
Styrene	50	53		1	106	70-130	04/12/2019 2110
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	04/12/2019 2110
Tetrachloroethene	50	51		1	101	70-130	04/12/2019 2110
Toluene	50	52		1	103	70-130	04/12/2019 2110
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	93	70-130	04/12/2019 2110
1,2,4-Trichlorobenzene	50	46		1	91	70-130	04/12/2019 2110
1,1,1-Trichloroethane	50	50		1	100	70-130	04/12/2019 2110
1,1,2-Trichloroethane	50	54		1	107	70-130	04/12/2019 2110

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13252-002

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	04/12/2019 2110
Trichlorofluoromethane	50	47		1	94	70-130	04/12/2019 2110
Vinyl chloride	50	46		1	93	70-130	04/12/2019 2110
Xylenes (total)	100	110		1	106	70-130	04/12/2019 2110
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		104	70-130				
Bromofluorobenzene		105	70-130				
Toluene-d8		106	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MS

Sample ID: UD10063-017MS

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	200000	160000		2000	81	60-140	04/13/2019 0600
Benzene	ND	100000	110000		2000	107	70-130	04/13/2019 0600
Bromodichloromethane	ND	100000	100000		2000	104	70-130	04/13/2019 0600
Bromoform	ND	100000	99000		2000	99	70-130	04/13/2019 0600
Bromomethane (Methyl bromide)	ND	100000	100000		2000	101	70-130	04/13/2019 0600
2-Butanone (MEK)	ND	200000	180000		2000	92	70-130	04/13/2019 0600
Carbon disulfide	ND	100000	100000		2000	101	70-130	04/13/2019 0600
Carbon tetrachloride	ND	100000	110000		2000	111	70-130	04/13/2019 0600
Chlorobenzene	ND	100000	100000		2000	103	70-130	04/13/2019 0600
Chloroethane	ND	100000	110000		2000	110	70-130	04/13/2019 0600
Chloroform	ND	100000	100000		2000	100	70-130	04/13/2019 0600
Chloromethane (Methyl chloride)	ND	100000	90000		2000	90	60-140	04/13/2019 0600
Cyclohexane	ND	100000	120000		2000	116	70-130	04/13/2019 0600
1,2-Dibromo-3-chloropropane (DBCP)	ND	100000	100000		2000	104	70-130	04/13/2019 0600
Dibromochloromethane	ND	100000	100000		2000	104	70-130	04/13/2019 0600
1,2-Dibromoethane (EDB)	ND	100000	110000		2000	109	70-130	04/13/2019 0600
1,2-Dichlorobenzene	ND	100000	100000		2000	102	70-130	04/13/2019 0600
1,3-Dichlorobenzene	ND	100000	100000		2000	104	70-130	04/13/2019 0600
1,4-Dichlorobenzene	ND	100000	100000		2000	100	70-130	04/13/2019 0600
Dichlorodifluoromethane	ND	100000	100000		2000	104	60-140	04/13/2019 0600
1,1-Dichloroethane	ND	100000	100000		2000	105	70-130	04/13/2019 0600
1,2-Dichloroethane	ND	100000	110000		2000	111	70-130	04/13/2019 0600
1,1-Dichloroethene	ND	100000	110000		2000	113	70-130	04/13/2019 0600
cis-1,2-Dichloroethene	ND	100000	100000		2000	103	70-130	04/13/2019 0600
trans-1,2-Dichloroethene	ND	100000	110000		2000	109	70-130	04/13/2019 0600
1,2-Dichloropropane	ND	100000	110000		2000	107	70-130	04/13/2019 0600
cis-1,3-Dichloropropene	ND	100000	110000		2000	106	70-130	04/13/2019 0600
trans-1,3-Dichloropropene	ND	100000	100000		2000	101	70-130	04/13/2019 0600
Ethylbenzene	ND	100000	110000		2000	112	70-130	04/13/2019 0600
2-Hexanone	ND	200000	190000		2000	97	70-130	04/13/2019 0600
Isopropylbenzene	ND	100000	110000		2000	114	70-130	04/13/2019 0600
Methyl acetate	ND	100000	91000		2000	91	70-130	04/13/2019 0600
Methyl tertiary butyl ether (MTBE)	ND	100000	110000		2000	107	70-130	04/13/2019 0600
4-Methyl-2-pentanone	ND	200000	190000		2000	96	70-130	04/13/2019 0600
Methylcyclohexane	ND	100000	120000		2000	123	70-130	04/13/2019 0600
Methylene chloride	ND	100000	100000		2000	102	70-130	04/13/2019 0600
Styrene	ND	100000	110000		2000	111	70-130	04/13/2019 0600
1,1,2,2-Tetrachloroethane	ND	100000	100000		2000	101	70-130	04/13/2019 0600
Tetrachloroethene	95000	100000	210000		2000	118	70-130	04/13/2019 0600
Toluene	ND	100000	110000		2000	108	70-130	04/13/2019 0600
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100000	120000		2000	117	70-130	04/13/2019 0600
1,2,4-Trichlorobenzene	ND	100000	100000		2000	104	70-130	04/13/2019 0600
1,1,1-Trichloroethane	ND	100000	110000		2000	114	70-130	04/13/2019 0600
1,1,2-Trichloroethane	ND	100000	110000		2000	107	70-130	04/13/2019 0600

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MS

Sample ID: UD10063-017MS

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	100000	110000		2000	113	70-130	04/13/2019 0600
Trichlorofluoromethane	ND	100000	110000		2000	113	70-130	04/13/2019 0600
Vinyl chloride	ND	100000	93000		2000	93	70-130	04/13/2019 0600
Xylenes (total)	ND	200000	220000		2000	112	70-130	04/13/2019 0600
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		100	70-130					
Bromofluorobenzene		106	70-130					
Toluene-d8		104	70-130					

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MSD

Sample ID: UD10063-017MD

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	200000	160000		2000	80	1.4	60-140	20	04/13/2019 0622
Benzene	ND	100000	100000		2000	104	2.9	70-130	20	04/13/2019 0622
Bromodichloromethane	ND	100000	100000		2000	101	2.7	70-130	20	04/13/2019 0622
Bromoform	ND	100000	97000		2000	97	1.5	70-130	20	04/13/2019 0622
Bromomethane (Methyl bromide)	ND	100000	100000		2000	100	1.5	70-130	20	04/13/2019 0622
2-Butanone (MEK)	ND	200000	180000		2000	91	2.1	70-130	20	04/13/2019 0622
Carbon disulfide	ND	100000	99000		2000	99	2.1	70-130	20	04/13/2019 0622
Carbon tetrachloride	ND	100000	110000		2000	110	1.1	70-130	20	04/13/2019 0622
Chlorobenzene	ND	100000	100000		2000	100	3.5	70-130	20	04/13/2019 0622
Chloroethane	ND	100000	110000		2000	106	3.4	70-130	20	04/13/2019 0622
Chloroform	ND	100000	98000		2000	98	2.1	70-130	20	04/13/2019 0622
Chloromethane (Methyl chloride)	ND	100000	87000		2000	87	3.6	60-140	20	04/13/2019 0622
Cyclohexane	ND	100000	110000		2000	113	2.5	70-130	20	04/13/2019 0622
1,2-Dibromo-3-chloropropane (DBCP)	ND	100000	100000		2000	102	2.0	70-130	20	04/13/2019 0622
Dibromochloromethane	ND	100000	100000		2000	102	2.0	70-130	20	04/13/2019 0622
1,2-Dibromoethane (EDB)	ND	100000	110000		2000	106	2.4	70-130	20	04/13/2019 0622
1,2-Dichlorobenzene	ND	100000	99000		2000	99	2.2	70-130	20	04/13/2019 0622
1,3-Dichlorobenzene	ND	100000	100000		2000	101	2.9	70-130	20	04/13/2019 0622
1,4-Dichlorobenzene	ND	100000	97000		2000	97	3.2	70-130	20	04/13/2019 0622
Dichlorodifluoromethane	ND	100000	100000		2000	102	2.1	60-140	20	04/13/2019 0622
1,1-Dichloroethane	ND	100000	100000		2000	102	2.4	70-130	20	04/13/2019 0622
1,2-Dichloroethane	ND	100000	110000		2000	108	2.6	70-130	20	04/13/2019 0622
1,1-Dichloroethene	ND	100000	110000		2000	112	1.3	70-130	20	04/13/2019 0622
cis-1,2-Dichloroethene	ND	100000	99000		2000	99	3.1	70-130	20	04/13/2019 0622
trans-1,2-Dichloroethene	ND	100000	100000		2000	105	4.3	70-130	20	04/13/2019 0622
1,2-Dichloropropane	ND	100000	100000		2000	103	3.3	70-130	20	04/13/2019 0622
cis-1,3-Dichloropropene	ND	100000	100000		2000	103	3.5	70-130	20	04/13/2019 0622
trans-1,3-Dichloropropene	ND	100000	99000		2000	99	1.8	70-130	20	04/13/2019 0622
Ethylbenzene	ND	100000	110000		2000	108	3.4	70-130	20	04/13/2019 0622
2-Hexanone	ND	200000	190000		2000	95	2.6	70-130	20	04/13/2019 0622
Isopropylbenzene	ND	100000	110000		2000	112	2.2	70-130	20	04/13/2019 0622
Methyl acetate	ND	100000	87000		2000	87	5.2	70-130	20	04/13/2019 0622
Methyl tertiary butyl ether (MTBE)	ND	100000	100000		2000	104	1.9	70-130	20	04/13/2019 0622
4-Methyl-2-pentanone	ND	200000	190000		2000	95	1.5	70-130	20	04/13/2019 0622
Methylcyclohexane	ND	100000	120000		2000	119	3.2	70-130	20	04/13/2019 0622
Methylene chloride	ND	100000	99000		2000	99	2.4	70-130	20	04/13/2019 0622
Styrene	ND	100000	110000		2000	107	2.9	70-130	20	04/13/2019 0622
1,1,2,2-Tetrachloroethane	ND	100000	99000		2000	99	2.3	70-130	20	04/13/2019 0622
Tetrachloroethene	95000	100000	210000		2000	112	2.8	70-130	20	04/13/2019 0622
Toluene	ND	100000	110000		2000	106	2.1	70-130	20	04/13/2019 0622
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100000	110000		2000	113	3.9	70-130	20	04/13/2019 0622
1,2,4-Trichlorobenzene	ND	100000	100000		2000	101	2.6	70-130	20	04/13/2019 0622
1,1,1-Trichloroethane	ND	100000	110000		2000	110	3.3	70-130	20	04/13/2019 0622
1,1,2-Trichloroethane	ND	100000	110000		2000	105	1.9	70-130	20	04/13/2019 0622

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MSD

Sample ID: UD10063-017MD

Matrix: Aqueous

Batch: 13252

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	100000	110000		2000	109	3.1	70-130	20	04/13/2019 0622
Trichlorofluoromethane	ND	100000	110000		2000	111	1.7	70-130	20	04/13/2019 0622
Vinyl chloride	ND	100000	93000		2000	93	0.63	70-130	20	04/13/2019 0622
Xylenes (total)	ND	200000	220000		2000	109	2.4	70-130	20	04/13/2019 0622
Surrogate	Q	% Rec	Acceptance Limit							
1,2-Dichloroethane-d4		99	70-130							
Bromofluorobenzene		103	70-130							
Toluene-d8		102	70-130							

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13286-001

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/13/2019 1623
Benzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromoform	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/13/2019 1623
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/13/2019 1623
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chloroethane	ND		1	2.0	0.40	ug/L	04/13/2019 1623
Chloroform	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/13/2019 1623
Cyclohexane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/13/2019 1623
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
2-Hexanone	ND		1	10	2.0	ug/L	04/13/2019 1623
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Methyl acetate	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/13/2019 1623
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/13/2019 1623
Methylene chloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Styrene	ND		1	1.0	0.41	ug/L	04/13/2019 1623
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Toluene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/13/2019 1623
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13286-001

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		108	70-130				
Bromofluorobenzene		94	70-130				
Toluene-d8		102	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13286-002

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	04/13/2019 1525
Benzene	50	49		1	99	70-130	04/13/2019 1525
Bromodichloromethane	50	48		1	96	70-130	04/13/2019 1525
Bromoform	50	43		1	86	70-130	04/13/2019 1525
Bromomethane (Methyl bromide)	50	57		1	113	70-130	04/13/2019 1525
2-Butanone (MEK)	100	89		1	89	70-130	04/13/2019 1525
Carbon disulfide	50	49		1	98	70-130	04/13/2019 1525
Carbon tetrachloride	50	48		1	96	70-130	04/13/2019 1525
Chlorobenzene	50	47		1	95	70-130	04/13/2019 1525
Chloroethane	50	57		1	115	70-130	04/13/2019 1525
Chloroform	50	48		1	96	70-130	04/13/2019 1525
Chloromethane (Methyl chloride)	50	54		1	109	60-140	04/13/2019 1525
Cyclohexane	50	57		1	115	70-130	04/13/2019 1525
1,2-Dibromo-3-chloropropane (DBCP)	50	40		1	81	70-130	04/13/2019 1525
Dibromochloromethane	50	45		1	90	70-130	04/13/2019 1525
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	04/13/2019 1525
1,2-Dichlorobenzene	50	45		1	90	70-130	04/13/2019 1525
1,3-Dichlorobenzene	50	44		1	88	70-130	04/13/2019 1525
1,4-Dichlorobenzene	50	44		1	88	70-130	04/13/2019 1525
Dichlorodifluoromethane	50	52		1	103	60-140	04/13/2019 1525
1,1-Dichloroethane	50	51		1	102	70-130	04/13/2019 1525
1,2-Dichloroethane	50	53		1	105	70-130	04/13/2019 1525
1,1-Dichloroethene	50	49		1	98	70-130	04/13/2019 1525
cis-1,2-Dichloroethene	50	48		1	95	70-130	04/13/2019 1525
trans-1,2-Dichloroethene	50	49		1	98	70-130	04/13/2019 1525
1,2-Dichloropropane	50	51		1	101	70-130	04/13/2019 1525
cis-1,3-Dichloropropene	50	49		1	98	70-130	04/13/2019 1525
trans-1,3-Dichloropropene	50	46		1	93	70-130	04/13/2019 1525
Ethylbenzene	50	48		1	97	70-130	04/13/2019 1525
2-Hexanone	100	100		1	100	70-130	04/13/2019 1525
Isopropylbenzene	50	50		1	99	70-130	04/13/2019 1525
Methyl acetate	50	50		1	99	70-130	04/13/2019 1525
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	04/13/2019 1525
4-Methyl-2-pentanone	100	100		1	103	70-130	04/13/2019 1525
Methylcyclohexane	50	50		1	100	70-130	04/13/2019 1525
Methylene chloride	50	48		1	95	70-130	04/13/2019 1525
Styrene	50	50		1	99	70-130	04/13/2019 1525
1,1,2,2-Tetrachloroethane	50	43		1	85	70-130	04/13/2019 1525
Tetrachloroethene	50	47		1	95	70-130	04/13/2019 1525
Toluene	50	48		1	96	70-130	04/13/2019 1525
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/13/2019 1525
1,2,4-Trichlorobenzene	50	47		1	94	70-130	04/13/2019 1525
1,1,1-Trichloroethane	50	48		1	97	70-130	04/13/2019 1525
1,1,2-Trichloroethane	50	47		1	95	70-130	04/13/2019 1525

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13286-002

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	04/13/2019 1525
Trichlorofluoromethane	50	51		1	102	70-130	04/13/2019 1525
Vinyl chloride	50	51		1	103	70-130	04/13/2019 1525
Xylenes (total)	100	97		1	97	70-130	04/13/2019 1525
Surrogate	Q	% Rec			Acceptance Limit		
1,2-Dichloroethane-d4		102			70-130		
Bromofluorobenzene		96			70-130		
Toluene-d8		97			70-130		

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13455-001

Matrix: Aqueous

Batch: 13455

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/15/2019 2243
Benzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Bromoform	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/15/2019 2243
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/15/2019 2243
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Chloroethane	ND		1	2.0	0.40	ug/L	04/15/2019 2243
Chloroform	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/15/2019 2243
Cyclohexane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/15/2019 2243
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
2-Hexanone	ND		1	10	2.0	ug/L	04/15/2019 2243
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Methyl acetate	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/15/2019 2243
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/15/2019 2243
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/15/2019 2243
Methylene chloride	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Styrene	ND		1	1.0	0.41	ug/L	04/15/2019 2243
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Toluene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/15/2019 2243
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13455-001

Matrix: Aqueous

Batch: 13455

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/15/2019 2243
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		109	70-130				
Bromofluorobenzene		97	70-130				
Toluene-d8		102	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13455-002

Matrix: Aqueous

Batch: 13455

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	97		1	97	60-140	04/15/2019 2134
Benzene	50	49		1	98	70-130	04/15/2019 2134
Bromodichloromethane	50	48		1	96	70-130	04/15/2019 2134
Bromoform	50	43		1	86	70-130	04/15/2019 2134
Bromomethane (Methyl bromide)	50	57		1	114	70-130	04/15/2019 2134
2-Butanone (MEK)	100	91		1	91	70-130	04/15/2019 2134
Carbon disulfide	50	49		1	97	70-130	04/15/2019 2134
Carbon tetrachloride	50	47		1	94	70-130	04/15/2019 2134
Chlorobenzene	50	47		1	95	70-130	04/15/2019 2134
Chloroethane	50	58		1	117	70-130	04/15/2019 2134
Chloroform	50	48		1	96	70-130	04/15/2019 2134
Chloromethane (Methyl chloride)	50	54		1	108	60-140	04/15/2019 2134
Cyclohexane	50	58		1	116	70-130	04/15/2019 2134
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	83	70-130	04/15/2019 2134
Dibromochloromethane	50	46		1	92	70-130	04/15/2019 2134
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	04/15/2019 2134
1,2-Dichlorobenzene	50	46		1	91	70-130	04/15/2019 2134
1,3-Dichlorobenzene	50	44		1	89	70-130	04/15/2019 2134
1,4-Dichlorobenzene	50	44		1	89	70-130	04/15/2019 2134
Dichlorodifluoromethane	50	54		1	107	60-140	04/15/2019 2134
1,1-Dichloroethane	50	51		1	102	70-130	04/15/2019 2134
1,2-Dichloroethane	50	53		1	105	70-130	04/15/2019 2134
1,1-Dichloroethene	50	49		1	99	70-130	04/15/2019 2134
cis-1,2-Dichloroethene	50	49		1	97	70-130	04/15/2019 2134
trans-1,2-Dichloroethene	50	49		1	98	70-130	04/15/2019 2134
1,2-Dichloropropane	50	52		1	103	70-130	04/15/2019 2134
cis-1,3-Dichloropropene	50	49		1	98	70-130	04/15/2019 2134
trans-1,3-Dichloropropene	50	47		1	93	70-130	04/15/2019 2134
Ethylbenzene	50	48		1	96	70-130	04/15/2019 2134
2-Hexanone	100	100		1	100	70-130	04/15/2019 2134
Isopropylbenzene	50	48		1	96	70-130	04/15/2019 2134
Methyl acetate	50	52		1	104	70-130	04/15/2019 2134
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	04/15/2019 2134
4-Methyl-2-pentanone	100	100		1	105	70-130	04/15/2019 2134
Methylcyclohexane	50	51		1	102	70-130	04/15/2019 2134
Methylene chloride	50	48		1	97	70-130	04/15/2019 2134
Styrene	50	49		1	99	70-130	04/15/2019 2134
1,1,2,2-Tetrachloroethane	50	45		1	89	70-130	04/15/2019 2134
Tetrachloroethene	50	47		1	94	70-130	04/15/2019 2134
Toluene	50	48		1	95	70-130	04/15/2019 2134
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	101	70-130	04/15/2019 2134
1,2,4-Trichlorobenzene	50	46		1	93	70-130	04/15/2019 2134
1,1,1-Trichloroethane	50	48		1	96	70-130	04/15/2019 2134
1,1,2-Trichloroethane	50	49		1	98	70-130	04/15/2019 2134

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13455-002

Matrix: Aqueous

Batch: 13455

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	04/15/2019 2134
Trichlorofluoromethane	50	52		1	104	70-130	04/15/2019 2134
Vinyl chloride	50	53		1	105	70-130	04/15/2019 2134
Xylenes (total)	100	96		1	96	70-130	04/15/2019 2134
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		103	70-130				
Bromofluorobenzene		102	70-130				
Toluene-d8		99	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody  
and  
Miscellaneous Documents



Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.shealylab.com

Number 58390

Client <b>AECOM</b>		Report to Contact <b>Aaron Council</b>		Telephone No. / E-mail <b>803-234-3032 aecom.com</b>		Quote No. <b>Z1840</b>	
Address <b>10 Patewood Dr., Building 6, Ste. 500</b>		Sample's Signature <i>Aaron Council</i>		Analysis (Attach list if more space is needed)		Page <b>1</b> of <b>2</b>	
City <b>Greenville</b>		State <b>SC</b>		Zip Code <b>29615</b>		Barcode <b>UD10063</b>	
Project Name <b>Itron - Greenwood</b>		Printed Name <b>Aaron Council</b>		LJO		Remarks / Cooler I.D.	
Project No. <b>60601469. Z</b>		P.O. No. <b>117369</b>		Matrix		No. of Containers by Preservative Type	
Sample ID / Description (Contains for each sample may be combined on one line.)		Date		Time		IX 809	
MW-Z		4/9/19		1740		3	
MW-8		4/9/19		1555		3	
MW-9		4/9/19		1310		3	
MW-9D		4/9/19		1205		3	
MW-10D		4/9/19		1100		3	
MW-10I		4/9/19		1100		3	
MW-10R		4/9/19		1200		3	
MW-11		4/9/19		1445		3	
MW-14		4/9/19		1240		3	
MW-16		4/9/19		1520		3	
Turn Around Time Required (Prior lab approval required for expedited TAT.) Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Specify)		Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Dispose by Lab		Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown		QC Requirements (Specify)	
1. Requisitioned by <i>Aaron Council</i>		Date 4/10/19		Time 1740		Date 4/10/19	
2. Requisitioned by		Date		Time		Date 4/10/19	
3. Requisitioned by		Date		Time		Date	
4. Requisitioned by <i>Matthew DP</i>		Date 4/10/19		Time 1440		Date 4/10/19	
Note: All samples are retained for four weeks from receipt unless other arrangements are made.		Received on Ice (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Receipt Temp. <b>2.7</b> °C		Time 1740	



**Chain of Custody Record**

**SHEALY ENVIRONMENTAL SERVICES, INC.**  
 106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.shealylab.com

**Number 82506**

Client <b>AECOM</b>		Request to Contact <b>Aaron Council</b>		Telephone No. / Email <b>803-234-3932 aecocom</b>		Quote No. <b>Z1890</b>
Address <b>10 Patented Dr., Building 6, Ste. 500 Greenville, SC 29615</b>		Sampler's Signature <i>[Signature]</i>		Analyst (Attach list if more space is needed)		Page <b>2</b> of <b>2</b>
Project Name <b>Itron-Greenwood</b>		Printed Name <b>Aaron Council</b>		Barcode <b>UD10063</b>		LID Remarks / Container I.D.
Project No. <b>6060146A-Z</b>	P.C. No. <b>112369</b>	Matrix		No. of Containers by Preservative Type		
Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	None	None	None	None
MW-16D	4/9/19	1600	✓	3	✓	✓
MW-21	4/9/19	1330	✓	3	✓	✓
DUP-1	4/9/19	1600	✓	3	✓	✓
EB-1	4/9/19	1235	✓	3	✓	✓
MW-3	4/10/19	0900	✓	3	✓	✓
MW-6	4/10/19	1000	✓	3	✓	✓
MW-7	4/10/19	1020	✓	3	✓	✓
MW-5	4/10/19	1155	✓	3	✓	✓
MW-5D	4/10/19	1150	✓	3	✓	✓
Tip Blank				2		

Turn Around Time Required (Prior lab approval required for expedited TRL)		Samples Discardal		Possible Hazard Identification		CC Requirements (Specify)	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush (Specify)	<input checked="" type="checkbox"/> Return to Client	<input checked="" type="checkbox"/> Depose by Job	<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison
1. Relinquished by <i>[Signature]</i>	Date 4/10/19	Time 1240	1. Received by <i>[Signature]</i>	2. Received by		Date 4/10/19	Time 1240
2. Relinquished by	Date	Time	3. Received by	4. Laboratory received by <i>[Signature]</i>		Date 4-10-19	Time 1440
3. Relinquished by	Date	Time	LAB USE ONLY		Received on Site (Circle)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Removal Temp. <b>2.7</b> °C

Notes: All samples are retained for four weeks from receipt unless other arrangements are made.

# SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.  
Document Number: ME0018C-14

Page 1 of 1  
Effective Date: 8/2/2018

## Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: ECC / 4/10/2019 Lot #: UD10063

Means of receipt: <input checked="" type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>2.7 / 2.7</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C	
Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: <u>phone / cmail / face-to-face</u> (circle one).
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH <sub>3</sub> /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # <u>21890 FR coc</u>
<b>Sample Preservation</b> (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> ml. of circle one: H2SO4, HNO3, HCl, NaOH using SR # <u>NA</u> . Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below.	
Sample(s) <u>-020 TB (2)</u> were received with bubbles >6 mm in diameter.	
Sample(s) <u>NA</u> were received with TRC > 0.5 mg/L. (If #19 is <u>no</u> ) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> ) with Shealy ID: <u>NA</u> .	
SR barcode labels applied by: <u>ECC</u> Date: <u>4/10/2019</u>	

Comments:

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# SHEALY ENVIRONMENTAL SERVICES, INC.

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## Report of Analysis

### AECOM

10 Patewood Drive  
Building 6, Suite 500  
Greenville, SC 29615  
Attention: Aaron Council

Project Name: Itron Greenwood

Project Number: 60601469.2

Lot Number: **UD11048**

Date Completed: 04/29/2019



04/29/2019 9:33 PM

Approved and released by:  
Lab Director - Greenville: Lucas Odom



The electronic signature above is the equivalent of a handwritten signature.  
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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 [www.shealylab.com](http://www.shealylab.com)

# SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

## **Case Narrative AECOM Lot Number: UD11048**

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.



# SHEALY ENVIRONMENTAL SERVICES, INC.

## Sample Summary

AECOM

Lot Number: UD11048

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	04/10/2019 1705	04/11/2019
002	MW-4	Aqueous	04/10/2019 1310	04/11/2019
003	MW-12	Aqueous	04/10/2019 1350	04/11/2019
004	MW-15R	Aqueous	04/10/2019 1500	04/11/2019
005	MW-17	Aqueous	04/10/2019 1610	04/11/2019
006	MW-18	Aqueous	04/10/2019 1630	04/11/2019
007	MW-19	Aqueous	04/10/2019 1400	04/11/2019
008	MW-22D	Aqueous	04/10/2019 1500	04/11/2019
009	DUP-2	Aqueous	04/10/2019 1405	04/11/2019
010	EB-2	Aqueous	04/10/2019 1225	04/11/2019
011	MW-13	Aqueous	04/11/2019 1000	04/11/2019
012	MW-20	Aqueous	04/11/2019 0935	04/11/2019
013	MW-23	Aqueous	04/11/2019 1100	04/11/2019
014	DUP-3	Aqueous	04/11/2019 0940	04/11/2019
015	TRIP BLANK	Aqueous	04/11/2019	04/11/2019

(15 samples)

# SHEALY ENVIRONMENTAL SERVICES, INC.

## Detection Summary

AECOM

Lot Number: UD11048

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1	Aqueous	Nitrate - N	9056A	1.8		mg/L	6
001	MW-1	Aqueous	Sulfate	9056A	0.35	J	mg/L	6
001	MW-1	Aqueous	Acetone	8260B	4.0	J	ug/L	6
001	MW-1	Aqueous	Tetrachloroethene	8260B	0.42	J	ug/L	7
002	MW-4	Aqueous	Sulfate	9056A	2.2		mg/L	8
002	MW-4	Aqueous	Acetone	8260B	4.5	J	ug/L	8
002	MW-4	Aqueous	Tetrachloroethene	8260B	14		ug/L	9
002	MW-4	Aqueous	Vinyl chloride	8260B	0.47	J	ug/L	9
003	MW-12	Aqueous	Nitrate - N	9056A	1.7		mg/L	10
003	MW-12	Aqueous	Sulfate	9056A	0.30	J	mg/L	10
003	MW-12	Aqueous	Tetrachloroethene	8260B	4400		ug/L	11
004	MW-15R	Aqueous	Nitrate - N	9056A	0.42		mg/L	12
004	MW-15R	Aqueous	Acetone	8260B	3.7	J	ug/L	12
004	MW-15R	Aqueous	Tetrachloroethene	8260B	1.8		ug/L	13
005	MW-17	Aqueous	Nitrate - N	9056A	1.9		mg/L	14
005	MW-17	Aqueous	Sulfate	9056A	0.40	J	mg/L	14
005	MW-17	Aqueous	Acetone	8260B	3.0	J	ug/L	14
005	MW-17	Aqueous	Tetrachloroethene	8260B	190		ug/L	15
005	MW-17	Aqueous	Trichloroethene	8260B	3.1		ug/L	15
006	MW-18	Aqueous	Nitrate - N	9056A	2.4		mg/L	16
006	MW-18	Aqueous	Acetone	8260B	3.7	J	ug/L	16
006	MW-18	Aqueous	Tetrachloroethene	8260B	0.51	J	ug/L	17
007	MW-19	Aqueous	Nitrate - N	9056A	0.79		mg/L	18
007	MW-19	Aqueous	Sulfate	9056A	0.21	J	mg/L	18
007	MW-19	Aqueous	Acetone	8260B	2.3	J	ug/L	18
007	MW-19	Aqueous	Tetrachloroethene	8260B	1.1		ug/L	19
008	MW-22D	Aqueous	Nitrate - N	9056A	0.45		mg/L	20
008	MW-22D	Aqueous	Sulfate	9056A	1.4		mg/L	20
008	MW-22D	Aqueous	Acetone	8260B	2.3	J	ug/L	20
008	MW-22D	Aqueous	Tetrachloroethene	8260B	1.2		ug/L	21
009	DUP-2	Aqueous	Nitrate - N	9056A	0.80		mg/L	22
009	DUP-2	Aqueous	Acetone	8260B	2.7	J	ug/L	22
009	DUP-2	Aqueous	Tetrachloroethene	8260B	1.2		ug/L	23
010	EB-2	Aqueous	Acetone	8260B	2.4	J	ug/L	24
011	MW-13	Aqueous	Nitrate - N	9056A	0.58		mg/L	26
011	MW-13	Aqueous	Sulfate	9056A	0.23	J	mg/L	26
011	MW-13	Aqueous	Acetone	8260B	3.4	J	ug/L	26
011	MW-13	Aqueous	Chloroform	8260B	1.8		ug/L	26
012	MW-20	Aqueous	Nitrate - N	9056A	0.078		mg/L	28
012	MW-20	Aqueous	Sulfate	9056A	2.9		mg/L	28
012	MW-20	Aqueous	cis-1,2-Dichloroethene	8260B	2.2	J	ug/L	28
012	MW-20	Aqueous	Tetrachloroethene	8260B	450		ug/L	29
012	MW-20	Aqueous	Trichloroethene	8260B	4.8	J	ug/L	29
013	MW-23	Aqueous	Nitrate - N	9056A	0.18		mg/L	30
013	MW-23	Aqueous	Sulfate	9056A	12		mg/L	30

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## Detection Summary (Continued)

Lot Number: UD11048

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Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
013	MW-23	Aqueous	Acetone	8260B	2.0	J	ug/L	30
014	DUP-3	Aqueous	Nitrate - N	9056A	0.077		mg/L	32
014	DUP-3	Aqueous	Sulfate	9056A	3.2		mg/L	32
014	DUP-3	Aqueous	cis-1,2-Dichloroethene	8260B	2.4	J	ug/L	32
014	DUP-3	Aqueous	Tetrachloroethene	8260B	490		ug/L	33
014	DUP-3	Aqueous	Trichloroethene	8260B	4.6	J	ug/L	33

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(51 detections)

## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1101	SLU		13153
1		(Sulfate) 9056A	1	04/12/2019 1101	SLU		13359

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.8		0.020	0.0050	mg/L	1
Sulfate		9056A	0.35	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2128	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	4.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/13/2019 2128	STM		13286		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	0.42	J	1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		110	70-130						
Bromofluorobenzene		98	70-130						
Toluene-d8		100	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1233	SLU		13151
2		(Sulfate) 9056A	1	04/24/2019 1245	SLU		14402

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	ND		0.020	0.0050	mg/L	1
Sulfate		9056A	2.2		1.0	0.20	mg/L	2

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2151	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	4.5	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

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ND = Not detected at or above the DL

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2151	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	14		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	0.47	J	1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1250	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1250	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.7		0.020	0.0050	mg/L	1
Sulfate		9056A	0.30	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	04/14/2019 0012	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	50	04/14/2019 0012	STM		13286		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1	
Styrene	100-42-5	8260B	ND		50	21	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1	
Tetrachloroethene	127-18-4	8260B	4400		50	20	ug/L	1	
Toluene	108-88-3	8260B	ND		50	20	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		109	70-130						
Bromofluorobenzene		91	70-130						
Toluene-d8		98	70-130						

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1459	SLU		13151
2		(Sulfate) 9056A	1	04/24/2019 1301	SLU		14402

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.42		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	2

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2215	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.7	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-15R  
 Date Sampled: 04/10/2019 1500  
 Date Received: 04/11/2019

Laboratory ID: UD11048-004  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2215	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.8		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1548	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1548	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	1.9		0.020	0.0050	mg/L	1
Sulfate		9056A	0.40	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/14/2019 0035	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/14/2019 0035	STM		13286		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	190		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	3.1		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		111	70-130						
Bromofluorobenzene		98	70-130						
Toluene-d8		102	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1604	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1604	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	2.4		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2238	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.7	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-18  
 Date Sampled: 04/10/2019 1630  
 Date Received: 04/11/2019

Laboratory ID: UD11048-006  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2238	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.51	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1306	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1306	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.79		0.020	0.0050	mg/L	1
Sulfate		9056A	0.21	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2302	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/13/2019 2302	STM		13286		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	1.1		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		108	70-130						
Bromofluorobenzene		88	70-130						
Toluene-d8		97	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

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Client: AECOM  
 Description: MW-22D  
 Date Sampled: 04/10/2019 1500  
 Date Received: 04/11/2019

Laboratory ID: UD11048-008  
 Matrix: Aqueous

### Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1338	SLU		13153
1		(Sulfate) 9056A	1	04/12/2019 1338	SLU		13359

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.45		0.020	0.0050	mg/L	1
Sulfate		9056A	1.4		1.0	0.20	mg/L	1

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2325	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/13/2019 2325	STM		13286		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	1.2		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		110	70-130						
Bromofluorobenzene		107	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

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E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

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P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1322	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1322	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.80		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2348	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.7	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

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P = The RPD between two GC columns exceeds 40%

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/13/2019 2348	STM		13286

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.2		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1112	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 1112	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	ND		0.020	0.0050	mg/L	1
Sulfate		9056A	ND		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/14/2019 1630	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.4	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/14/2019 1630	KGT		13300		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		111	70-130						
Bromofluorobenzene		101	70-130						
Toluene-d8		104	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 0951	SLU		13151
1		(Sulfate) 9056A	1	04/12/2019 0951	SLU		13337

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.58		0.020	0.0050	mg/L	1
Sulfate		9056A	0.23	J	1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/14/2019 1653	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.4	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	1.8		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-13  
 Date Sampled: 04/11/2019 1000  
 Date Received: 04/11/2019

Laboratory ID: UD11048-011  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/14/2019 1653	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 0825	SLU		13153
1		(Sulfate) 9056A	1	04/12/2019 0825	SLU		13359

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.078		0.020	0.0050	mg/L	1
Sulfate		9056A	2.9		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	04/14/2019 2111	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.2	J	5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: MW-20  
 Date Sampled: 04/11/2019 0935  
 Date Received: 04/11/2019

Laboratory ID: UD11048-012  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	5	04/14/2019 2111	KGT		13300		

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	450		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	4.8	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time      W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 1040	SLU		13151
2		(Sulfate) 9056A	1	04/24/2019 1317	SLU		14402

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.18		0.020	0.0050	mg/L	1
Sulfate		9056A	12		1.0	0.20	mg/L	2

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/14/2019 1717	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/14/2019 1717	KGT		13300		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1	
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1	
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1	
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1	
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1	
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1	
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1	
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1	
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		106	70-130						
Bromofluorobenzene		86	70-130						
Toluene-d8		98	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 9056A	1	04/12/2019 0917	SLU		13153
1		(Sulfate) 9056A	1	04/12/2019 0917	SLU		13359

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		9056A	0.077		0.020	0.0050	mg/L	1
Sulfate		9056A	3.2		1.0	0.20	mg/L	1

## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	04/14/2019 2134	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.4	J	5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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Client: AECOM  
 Description: DUP-3  
 Date Sampled: 04/11/2019 0940  
 Date Received: 04/11/2019

Laboratory ID: UD11048-014  
 Matrix: Aqueous

### Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	04/14/2019 2134	KGT		13300

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	490		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	4.6	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation    B = Detected in the method blank    E = Quantitation of compound exceeded the calibration range    DL = Detection Limit  
 ND = Not detected at or above the DL    N = Recovery is out of criteria    P = The RPD between two GC columns exceeds 40%    J = Estimated result < LOQ and ≥ DL  
 H = Out of holding time    W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/14/2019 1606	KGT		13300		
Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run	
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1	
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1	
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1	
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1	
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1	
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1	
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1	
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1	
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1	
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1	
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1	
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1	
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1	
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1	
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1	
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1	
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1	
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1	
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1	
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1	
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1	
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1	
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1	
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1	
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1	
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1	
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1	
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1	
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1	
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1	
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1	
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1	
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1	
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1	
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1	

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

H = Out of holding time

W = Reported on wet weight basis

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## Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	04/14/2019 1606	KGT		13300		
Parameter		CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane		76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene		120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane		71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane		79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene		79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane		75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride		75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)		1330-20-7	8260B	ND		1.0	0.40	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits						
1,2-Dichloroethane-d4		108	70-130						
Bromofluorobenzene		94	70-130						
Toluene-d8		99	70-130						

LOQ = Limit of Quantitation

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

DL = Detection Limit

ND = Not detected at or above the DL

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

J = Estimated result &lt; LOQ and ≥ DL

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## QC Summary

# Inorganic non-metals - MB

Sample ID: UQ13151-001

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0050	mg/L	04/12/2019 0900

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ13151-002

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	80-120	04/12/2019 0935

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-005MS

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	1.9	0.80	2.7		1	100	80-120	04/12/2019 1620

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-005MD

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	1.9	0.80	2.7		1	100	0.00	80-120	20	04/12/2019 1637

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-006MS

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	2.4	0.80	3.2		1	100	80-120	04/12/2019 1653

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-006MD

Matrix: Aqueous

Batch: 13151

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	2.4	0.80	3.2		1	100	0.00	80-120	20	04/12/2019 1709

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MB

Sample ID: UQ13153-001

Matrix: Aqueous

Batch: 13153

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0050	mg/L	04/12/2019 0730

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ13153-002

Matrix: Aqueous

Batch: 13153

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.79		1	99	80-120	04/12/2019 1035

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-014MS

Matrix: Aqueous

Batch: 13153

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.077	0.80	0.85		1	97	80-120	04/12/2019 1127

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-014MD

Matrix: Aqueous

Batch: 13153

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.077	0.80	0.84		1	95	1.2	80-120	20	04/12/2019 1153

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MB

Sample ID: UQ13337-001

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/12/2019 0900

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ13337-002

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	80-120	04/12/2019 0935

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-005MS

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.40	20	20		1	99	80-120	04/12/2019 1620

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-005MD

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.40	20	20		1	99	0.00	80-120	20	04/12/2019 1637

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-006MS

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	ND	20	20		1	101	80-120	04/12/2019 1653

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-006MD

Matrix: Aqueous

Batch: 13337

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	20	20		1	99	2.0	80-120	20	04/12/2019 1709

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MB

Sample ID: UQ13359-001

Matrix: Aqueous

Batch: 13359

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/12/2019 0730

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ13359-002

Matrix: Aqueous

Batch: 13359

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	80-120	04/12/2019 1035

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MS

Sample ID: UD11048-014MS

Matrix: Aqueous

Batch: 13359

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	3.2	20	20		1	86	80-120	04/12/2019 1127

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MSD

Sample ID: UD11048-014MD

Matrix: Aqueous

Batch: 13359

Analytical Method: 9056A

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	3.2	20	20		1	83	2.5	80-120	20	04/12/2019 1153

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - MB

Sample ID: UQ14402-001

Matrix: Aqueous

Batch: 14402

Analytical Method: 9056A

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/24/2019 0409

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Inorganic non-metals - LCS

Sample ID: UQ14402-002

Matrix: Aqueous

Batch: 14402

Analytical Method: 9056A

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	101	80-120	04/24/2019 0442

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13286-001

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/13/2019 1623
Benzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromoform	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/13/2019 1623
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/13/2019 1623
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chloroethane	ND		1	2.0	0.40	ug/L	04/13/2019 1623
Chloroform	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/13/2019 1623
Cyclohexane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/13/2019 1623
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
2-Hexanone	ND		1	10	2.0	ug/L	04/13/2019 1623
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Methyl acetate	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/13/2019 1623
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/13/2019 1623
Methylene chloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Styrene	ND		1	1.0	0.41	ug/L	04/13/2019 1623
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Toluene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/13/2019 1623
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13286-001

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/13/2019 1623
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		108	70-130				
Bromofluorobenzene		94	70-130				
Toluene-d8		102	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13286-002

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	04/13/2019 1525
Benzene	50	49		1	99	70-130	04/13/2019 1525
Bromodichloromethane	50	48		1	96	70-130	04/13/2019 1525
Bromoform	50	43		1	86	70-130	04/13/2019 1525
Bromomethane (Methyl bromide)	50	57		1	113	70-130	04/13/2019 1525
2-Butanone (MEK)	100	89		1	89	70-130	04/13/2019 1525
Carbon disulfide	50	49		1	98	70-130	04/13/2019 1525
Carbon tetrachloride	50	48		1	96	70-130	04/13/2019 1525
Chlorobenzene	50	47		1	95	70-130	04/13/2019 1525
Chloroethane	50	57		1	115	70-130	04/13/2019 1525
Chloroform	50	48		1	96	70-130	04/13/2019 1525
Chloromethane (Methyl chloride)	50	54		1	109	60-140	04/13/2019 1525
Cyclohexane	50	57		1	115	70-130	04/13/2019 1525
1,2-Dibromo-3-chloropropane (DBCP)	50	40		1	81	70-130	04/13/2019 1525
Dibromochloromethane	50	45		1	90	70-130	04/13/2019 1525
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	04/13/2019 1525
1,2-Dichlorobenzene	50	45		1	90	70-130	04/13/2019 1525
1,3-Dichlorobenzene	50	44		1	88	70-130	04/13/2019 1525
1,4-Dichlorobenzene	50	44		1	88	70-130	04/13/2019 1525
Dichlorodifluoromethane	50	52		1	103	60-140	04/13/2019 1525
1,1-Dichloroethane	50	51		1	102	70-130	04/13/2019 1525
1,2-Dichloroethane	50	53		1	105	70-130	04/13/2019 1525
1,1-Dichloroethene	50	49		1	98	70-130	04/13/2019 1525
cis-1,2-Dichloroethene	50	48		1	95	70-130	04/13/2019 1525
trans-1,2-Dichloroethene	50	49		1	98	70-130	04/13/2019 1525
1,2-Dichloropropane	50	51		1	101	70-130	04/13/2019 1525
cis-1,3-Dichloropropene	50	49		1	98	70-130	04/13/2019 1525
trans-1,3-Dichloropropene	50	46		1	93	70-130	04/13/2019 1525
Ethylbenzene	50	48		1	97	70-130	04/13/2019 1525
2-Hexanone	100	100		1	100	70-130	04/13/2019 1525
Isopropylbenzene	50	50		1	99	70-130	04/13/2019 1525
Methyl acetate	50	50		1	99	70-130	04/13/2019 1525
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	04/13/2019 1525
4-Methyl-2-pentanone	100	100		1	103	70-130	04/13/2019 1525
Methylcyclohexane	50	50		1	100	70-130	04/13/2019 1525
Methylene chloride	50	48		1	95	70-130	04/13/2019 1525
Styrene	50	50		1	99	70-130	04/13/2019 1525
1,1,2,2-Tetrachloroethane	50	43		1	85	70-130	04/13/2019 1525
Tetrachloroethene	50	47		1	95	70-130	04/13/2019 1525
Toluene	50	48		1	96	70-130	04/13/2019 1525
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/13/2019 1525
1,2,4-Trichlorobenzene	50	47		1	94	70-130	04/13/2019 1525
1,1,1-Trichloroethane	50	48		1	97	70-130	04/13/2019 1525
1,1,2-Trichloroethane	50	47		1	95	70-130	04/13/2019 1525

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13286-002

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	04/13/2019 1525
Trichlorofluoromethane	50	51		1	102	70-130	04/13/2019 1525
Vinyl chloride	50	51		1	103	70-130	04/13/2019 1525
Xylenes (total)	100	97		1	97	70-130	04/13/2019 1525
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		102	70-130				
Bromofluorobenzene		96	70-130				
Toluene-d8		97	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MS

Sample ID: UD11048-005MS

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	3.0	100	80		1	77	60-140	04/14/2019 0058
Benzene	ND	50	53		1	106	70-130	04/14/2019 0058
Bromodichloromethane	ND	50	50		1	100	70-130	04/14/2019 0058
Bromoform	ND	50	45		1	89	70-130	04/14/2019 0058
Bromomethane (Methyl bromide)	ND	50	61		1	121	70-130	04/14/2019 0058
2-Butanone (MEK)	ND	100	82		1	82	70-130	04/14/2019 0058
Carbon disulfide	ND	50	51		1	102	70-130	04/14/2019 0058
Carbon tetrachloride	ND	50	52		1	103	70-130	04/14/2019 0058
Chlorobenzene	ND	50	50		1	101	70-130	04/14/2019 0058
Chloroethane	ND	50	63		1	127	70-130	04/14/2019 0058
Chloroform	ND	50	51		1	102	70-130	04/14/2019 0058
Chloromethane (Methyl chloride)	ND	50	60		1	120	60-140	04/14/2019 0058
Cyclohexane	ND	50	66	N	1	131	70-130	04/14/2019 0058
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	44		1	87	70-130	04/14/2019 0058
Dibromochloromethane	ND	50	48		1	97	70-130	04/14/2019 0058
1,2-Dibromoethane (EDB)	ND	50	52		1	103	70-130	04/14/2019 0058
1,2-Dichlorobenzene	ND	50	50		1	100	70-130	04/14/2019 0058
1,3-Dichlorobenzene	ND	50	49		1	98	70-130	04/14/2019 0058
1,4-Dichlorobenzene	ND	50	49		1	98	70-130	04/14/2019 0058
Dichlorodifluoromethane	ND	50	59		1	118	60-140	04/14/2019 0058
1,1-Dichloroethane	ND	50	54		1	108	70-130	04/14/2019 0058
1,2-Dichloroethane	ND	50	55		1	109	70-130	04/14/2019 0058
1,1-Dichloroethene	ND	50	53		1	107	70-130	04/14/2019 0058
cis-1,2-Dichloroethene	ND	50	50		1	99	70-130	04/14/2019 0058
trans-1,2-Dichloroethene	ND	50	52		1	104	70-130	04/14/2019 0058
1,2-Dichloropropane	ND	50	54		1	108	70-130	04/14/2019 0058
cis-1,3-Dichloropropene	ND	50	50		1	99	70-130	04/14/2019 0058
trans-1,3-Dichloropropene	ND	50	47		1	95	70-130	04/14/2019 0058
Ethylbenzene	ND	50	52		1	104	70-130	04/14/2019 0058
2-Hexanone	ND	100	100		1	100	70-130	04/14/2019 0058
Isopropylbenzene	ND	50	53		1	106	70-130	04/14/2019 0058
Methyl acetate	ND	50	47		1	95	70-130	04/14/2019 0058
Methyl tertiary butyl ether (MTBE)	ND	50	49		1	98	70-130	04/14/2019 0058
4-Methyl-2-pentanone	ND	100	110		1	105	70-130	04/14/2019 0058
Methylcyclohexane	ND	50	56		1	113	70-130	04/14/2019 0058
Methylene chloride	ND	50	50		1	99	70-130	04/14/2019 0058
Styrene	ND	50	52		1	105	70-130	04/14/2019 0058
1,1,2,2-Tetrachloroethane	ND	50	48		1	96	70-130	04/14/2019 0058
Tetrachloroethene	190	50	240	E	1	96	70-130	04/14/2019 0058
Toluene	ND	50	51		1	103	70-130	04/14/2019 0058
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	56		1	112	70-130	04/14/2019 0058
1,2,4-Trichlorobenzene	ND	50	50		1	100	70-130	04/14/2019 0058
1,1,1-Trichloroethane	ND	50	52		1	105	70-130	04/14/2019 0058
1,1,2-Trichloroethane	ND	50	51		1	101	70-130	04/14/2019 0058

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MS

Sample ID: UD11048-005MS

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	3.1	50	57		1	108	70-130	04/14/2019 0058
Trichlorofluoromethane	ND	50	57		1	115	70-130	04/14/2019 0058
Vinyl chloride	ND	50	58		1	115	70-130	04/14/2019 0058
Xylenes (total)	ND	100	100		1	103	70-130	04/14/2019 0058
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		109	70-130					
Bromofluorobenzene		107	70-130					
Toluene-d8		103	70-130					

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MSD

Sample ID: UD11048-005MD

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	3.0	100	78		1	75	3.2	60-140	20	04/14/2019 0121
Benzene	ND	50	51		1	103	3.5	70-130	20	04/14/2019 0121
Bromodichloromethane	ND	50	49		1	98	2.4	70-130	20	04/14/2019 0121
Bromoform	ND	50	43		1	87	2.7	70-130	20	04/14/2019 0121
Bromomethane (Methyl bromide)	ND	50	59		1	118	2.8	70-130	20	04/14/2019 0121
2-Butanone (MEK)	ND	100	82		1	82	0.081	70-130	20	04/14/2019 0121
Carbon disulfide	ND	50	50		1	100	1.7	70-130	20	04/14/2019 0121
Carbon tetrachloride	ND	50	51		1	102	0.71	70-130	20	04/14/2019 0121
Chlorobenzene	ND	50	49		1	99	1.8	70-130	20	04/14/2019 0121
Chloroethane	ND	50	61		1	122	3.5	70-130	20	04/14/2019 0121
Chloroform	ND	50	49		1	99	2.5	70-130	20	04/14/2019 0121
Chloromethane (Methyl chloride)	ND	50	60		1	119	0.49	60-140	20	04/14/2019 0121
Cyclohexane	ND	50	65		1	129	1.5	70-130	20	04/14/2019 0121
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	41		1	83	5.2	70-130	20	04/14/2019 0121
Dibromochloromethane	ND	50	47		1	94	2.9	70-130	20	04/14/2019 0121
1,2-Dibromoethane (EDB)	ND	50	50		1	101	2.3	70-130	20	04/14/2019 0121
1,2-Dichlorobenzene	ND	50	47		1	95	5.4	70-130	20	04/14/2019 0121
1,3-Dichlorobenzene	ND	50	46		1	93	5.9	70-130	20	04/14/2019 0121
1,4-Dichlorobenzene	ND	50	46		1	93	5.3	70-130	20	04/14/2019 0121
Dichlorodifluoromethane	ND	50	59		1	118	0.42	60-140	20	04/14/2019 0121
1,1-Dichloroethane	ND	50	53		1	106	2.0	70-130	20	04/14/2019 0121
1,2-Dichloroethane	ND	50	54		1	107	1.9	70-130	20	04/14/2019 0121
1,1-Dichloroethene	ND	50	52		1	104	2.1	70-130	20	04/14/2019 0121
cis-1,2-Dichloroethene	ND	50	49		1	98	1.8	70-130	20	04/14/2019 0121
trans-1,2-Dichloroethene	ND	50	51		1	101	2.3	70-130	20	04/14/2019 0121
1,2-Dichloropropane	ND	50	53		1	105	2.8	70-130	20	04/14/2019 0121
cis-1,3-Dichloropropene	ND	50	49		1	98	1.7	70-130	20	04/14/2019 0121
trans-1,3-Dichloropropene	ND	50	47		1	94	0.67	70-130	20	04/14/2019 0121
Ethylbenzene	ND	50	51		1	102	1.9	70-130	20	04/14/2019 0121
2-Hexanone	ND	100	98		1	98	1.6	70-130	20	04/14/2019 0121
Isopropylbenzene	ND	50	52		1	104	1.2	70-130	20	04/14/2019 0121
Methyl acetate	ND	50	46		1	91	3.7	70-130	20	04/14/2019 0121
Methyl tertiary butyl ether (MTBE)	ND	50	49		1	98	0.30	70-130	20	04/14/2019 0121
4-Methyl-2-pentanone	ND	100	100		1	102	2.7	70-130	20	04/14/2019 0121
Methylcyclohexane	ND	50	55		1	110	2.8	70-130	20	04/14/2019 0121
Methylene chloride	ND	50	49		1	98	1.5	70-130	20	04/14/2019 0121
Styrene	ND	50	52		1	103	1.5	70-130	20	04/14/2019 0121
1,1,2,2-Tetrachloroethane	ND	50	45		1	91	5.5	70-130	20	04/14/2019 0121
Tetrachloroethene	190	50	200	N	1	27	16	70-130	20	04/14/2019 0121
Toluene	ND	50	50		1	101	2.1	70-130	20	04/14/2019 0121
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	55		1	109	2.6	70-130	20	04/14/2019 0121
1,2,4-Trichlorobenzene	ND	50	48		1	96	4.7	70-130	20	04/14/2019 0121
1,1,1-Trichloroethane	ND	50	51		1	103	1.7	70-130	20	04/14/2019 0121
1,1,2-Trichloroethane	ND	50	49		1	98	3.0	70-130	20	04/14/2019 0121

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MSD

Sample ID: UD11048-005MD

Matrix: Aqueous

Batch: 13286

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	3.1	50	56		1	106	2.2	70-130	20	04/14/2019 0121
Trichlorofluoromethane	ND	50	56		1	112	2.2	70-130	20	04/14/2019 0121
Vinyl chloride	ND	50	57		1	113	1.8	70-130	20	04/14/2019 0121
Xylenes (total)	ND	100	100		1	101	1.8	70-130	20	04/14/2019 0121
Surrogate	Q	% Rec	Acceptance Limit							
1,2-Dichloroethane-d4		106	70-130							
Bromofluorobenzene		103	70-130							
Toluene-d8		101	70-130							

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13300-001

Matrix: Aqueous

Batch: 13300

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	04/14/2019 1523
Benzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Bromoform	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/14/2019 1523
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/14/2019 1523
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Chloroethane	ND		1	2.0	0.40	ug/L	04/14/2019 1523
Chloroform	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/14/2019 1523
Cyclohexane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/14/2019 1523
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
2-Hexanone	ND		1	10	2.0	ug/L	04/14/2019 1523
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Methyl acetate	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/14/2019 1523
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/14/2019 1523
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/14/2019 1523
Methylene chloride	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Styrene	ND		1	1.0	0.41	ug/L	04/14/2019 1523
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Toluene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/14/2019 1523
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ13300-001

Matrix: Aqueous

Batch: 13300

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/14/2019 1523
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		111	70-130				
Bromofluorobenzene		101	70-130				
Toluene-d8		104	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13300-002

Matrix: Aqueous

Batch: 13300

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	04/14/2019 1424
Benzene	50	50		1	101	70-130	04/14/2019 1424
Bromodichloromethane	50	49		1	98	70-130	04/14/2019 1424
Bromoform	50	45		1	90	70-130	04/14/2019 1424
Bromomethane (Methyl bromide)	50	58		1	115	70-130	04/14/2019 1424
2-Butanone (MEK)	100	110		1	111	70-130	04/14/2019 1424
Carbon disulfide	50	50		1	100	70-130	04/14/2019 1424
Carbon tetrachloride	50	49		1	98	70-130	04/14/2019 1424
Chlorobenzene	50	49		1	98	70-130	04/14/2019 1424
Chloroethane	50	60		1	120	70-130	04/14/2019 1424
Chloroform	50	49		1	98	70-130	04/14/2019 1424
Chloromethane (Methyl chloride)	50	55		1	110	60-140	04/14/2019 1424
Cyclohexane	50	60		1	120	70-130	04/14/2019 1424
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	04/14/2019 1424
Dibromochloromethane	50	48		1	95	70-130	04/14/2019 1424
1,2-Dibromoethane (EDB)	50	51		1	103	70-130	04/14/2019 1424
1,2-Dichlorobenzene	50	48		1	96	70-130	04/14/2019 1424
1,3-Dichlorobenzene	50	46		1	93	70-130	04/14/2019 1424
1,4-Dichlorobenzene	50	47		1	93	70-130	04/14/2019 1424
Dichlorodifluoromethane	50	55		1	110	60-140	04/14/2019 1424
1,1-Dichloroethane	50	52		1	104	70-130	04/14/2019 1424
1,2-Dichloroethane	50	54		1	108	70-130	04/14/2019 1424
1,1-Dichloroethene	50	50		1	101	70-130	04/14/2019 1424
cis-1,2-Dichloroethene	50	49		1	98	70-130	04/14/2019 1424
trans-1,2-Dichloroethene	50	50		1	101	70-130	04/14/2019 1424
1,2-Dichloropropane	50	52		1	104	70-130	04/14/2019 1424
cis-1,3-Dichloropropene	50	51		1	102	70-130	04/14/2019 1424
trans-1,3-Dichloropropene	50	48		1	96	70-130	04/14/2019 1424
Ethylbenzene	50	49		1	99	70-130	04/14/2019 1424
2-Hexanone	100	110		1	110	70-130	04/14/2019 1424
Isopropylbenzene	50	50		1	101	70-130	04/14/2019 1424
Methyl acetate	50	52		1	103	70-130	04/14/2019 1424
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	04/14/2019 1424
4-Methyl-2-pentanone	100	110		1	106	70-130	04/14/2019 1424
Methylcyclohexane	50	52		1	105	70-130	04/14/2019 1424
Methylene chloride	50	49		1	98	70-130	04/14/2019 1424
Styrene	50	51		1	102	70-130	04/14/2019 1424
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	04/14/2019 1424
Tetrachloroethene	50	49		1	97	70-130	04/14/2019 1424
Toluene	50	49		1	98	70-130	04/14/2019 1424
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	04/14/2019 1424
1,2,4-Trichlorobenzene	50	49		1	98	70-130	04/14/2019 1424
1,1,1-Trichloroethane	50	50		1	100	70-130	04/14/2019 1424
1,1,2-Trichloroethane	50	50		1	99	70-130	04/14/2019 1424

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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# Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ13300-002

Matrix: Aqueous

Batch: 13300

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	106	70-130	04/14/2019 1424
Trichlorofluoromethane	50	54		1	109	70-130	04/14/2019 1424
Vinyl chloride	50	54		1	108	70-130	04/14/2019 1424
Xylenes (total)	100	99		1	99	70-130	04/14/2019 1424
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		104	70-130				
Bromofluorobenzene		103	70-130				
Toluene-d8		100	70-130				

LOQ = Limit of Quantitation

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and  $\geq$  DL

+ = RPD is out of criteria

LOD = Limit of Detection

ND = Not detected at or above the DL

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody  
and  
Miscellaneous Documents



Chain of Custody Record

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Number 88008

Client <b>AECOM</b>	Project Name <b>Ittron - Greenwood</b>	Project No. <b>60601469.2</b>	PO No. <b>112369</b>	Requested to Contact <b>Aaron Council</b>	Telephone No. / E-mail <b>664-231-3032</b> aaron.council@aecom.com	Quote No. <b>Z1890</b>
Address <b>10 Patented Dr., Building 6, Ste. 500 Greenville SC 29615</b>	City <b>Greenville</b>	State <b>SC</b>	Zip Code <b>29615</b>	Sample ID / Description <b>MW-1</b>	Analysis (Attach list if more space is needed)	Page <b>1</b> of <b>2</b>
Sample ID / Description <b>MW-4</b>	Date <b>4/10/19</b>	Time <b>1705</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type	<p><b>UD11048</b></p> <p>LID</p>	
Sample ID / Description <b>MW-12</b>	Date <b>4/10/19</b>	Time <b>1310</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-15R</b>	Date <b>4/10/19</b>	Time <b>1350</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-17</b>	Date <b>4/10/19</b>	Time <b>1500</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-17MS</b>	Date <b>4/10/19</b>	Time <b>1610</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-17MSD</b>	Date <b>4/10/19</b>	Time <b>1615</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-18</b>	Date <b>4/10/19</b>	Time <b>1620</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-19</b>	Date <b>4/10/19</b>	Time <b>1630</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-ZZD</b>	Date <b>4/10/19</b>	Time <b>1400</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		
Sample ID / Description <b>MW-ZZD</b>	Date <b>4/10/19</b>	Time <b>1500</b>	Matrix <b>Soil</b>	Number of Containers by Preservative Type		

Turn Around Time Required (Prior lab approval required for expedited TAT) <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify)	Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposed by Lab	Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown	OC Requirements (Specify)
1. Relinquished by <b>Aaron A. Council</b>	Date <b>4/11/19</b>	Time <b>1135</b>	1. Received by <b>Kevin E. Mard</b>
2. Relinquished by <b>Kevin E. Mard</b>	Date <b>4/11/19</b>	Time <b>1215</b>	2. Received by <b>Matthew D.P.</b>
3. Relinquished by	Date	Time	3. Received by
4. Relinquished by <b>Matthew D.P.</b>	Date <b>4/11/19</b>	Time <b>1350</b>	4. Laboratory received by <b>Kevin E. Mard</b>

Note: All samples are retained for four weeks from receipt unless other arrangements are made.



**Chain of Custody Record**

**SHEALY ENVIRONMENTAL SERVICES, INC.**

106 Vantage Point Drive • West Columbia, SC 29172  
 Telephone No. 803-791-9700 Fax No. 803-791-9111  
 www.shealylab.com

**Number 85239**

Client <b>AECOM</b>		Report to Contact <b>Aaron Council</b>		Telephone No. / Email <b>803-734-3032 aecom.com</b>		Quote No. <b>Z1890</b>	
Address <b>10 Poterwood Dr., Building 6, Ste. 500</b>		Analyst's Signature <i>Aaron A. Council</i>		Analyst's (Attach list if more space is needed)		Page <b>Z</b> of <b>Z</b>	
City <b>Greenville</b>		State <b>SC</b>		Zip Code <b>29615</b>		LMO <b>UD11048</b>	
Project Name <b>Ittron - Greenwood</b>		Project No. <b>60601469.2</b>		RQ No. <b>112369</b>		Barcode	
Sample ID / Description (Containers for each sample may be combined on one line.)		Date		Time		Matrix	
DUP-2		4/10/19		1405		G ✓	
EB-2		4/10/19		1225		G ✓	
MW-13		4/11/19		1000		G ✓	
MW-20		4/11/19		0935		G ✓	
MW-23		4/11/19		1100		G ✓	
DUP-3		4/11/19		0940		G ✓	
Trip Blank						Z	

Turn Around Time Required (Prior lab approval required for expedited MAT)	Sample Disposal		Possible Hazard Identification		QC Requirements (Specify)	
	Return to Client	Disposal by Lab	Non-Hazard	Hazardous	Date	Time
1. Returned by <i>Aaron A. Council</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4/11/19	1135
2. Requested by <i>Aaron A. Council</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4/11/19	1215
3. Requested by <i>Aaron A. Council</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4/11/19	1350
4. Requested by <i>Aaron A. Council</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4/11/19	1350

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

# SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.  
Document Number: ME0018C-14

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Effective Date: 8/2/2018

## Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: LKH / 04-11-2019 Lot #: UD11048

Means of receipt: <input checked="" type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>1.5 / 1.5 °C NA / NA °C NA / NA °C NA / NA °C</u>	
Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH <sub>3</sub> /TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes. Quote # _____
<b>Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)</b>	
Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> mL of circle one: H <sub>2</sub> SO <sub>4</sub> , HNO <sub>3</sub> , HCl, NaOH using SR # <u>NA</u> . Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below.	
Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter.	
Sample(s) <u>NA</u> were received with TRC > 0.5 mg/L (If #19 is <i>no</i> ) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) with Shealy ID: <u>NA</u> .	
SR barcode labels applied by: <u>LKH</u> Date: <u>04-11-2019</u>	

Comments:

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