Gannett Fleming

Excellence Delivered As Promised

October 3, 2018
File # 55929.005

Ms. Mae Willkom & Mr. William Myers
Bureau of Remediation and Redevelopment
Wisconsin Department of Natural Resources, WCR
1300 West Clairemont Avenue
P.O. Box 4001
Eau Claire, WI 54702-4001

Re: **Pilot-Test Injection Report & Work Plan for Full-Scale Injections**
WRR Environmental Services, Eau Claire
WDNR BRRTS No. 02-18-000274
WDNR FID No. 618 026 530
EPA ID No. WID 990 829 475

Dear Ms. Willkom:

During the week of June 6, 2018, Gannett Fleming Inc. (GF) conducted pilot-test injections of reducing reagents into the groundwater in the northeast portion of the WRR Environmental Services (WRR) facility in Eau Claire. The pilot test was conducted in accordance with GF's February 15, 2018, *Injection Work Plan & Permit Request* approved by the Wisconsin Department of Natural Resources (WDNR) on April 25, 2018. Figure 1 is a site location map, and Figure 2 is a site map that shows the locations where the pilot-test injections were conducted.

The pilot-test consisted of injecting a mixture of emulsified vegetable oil (EVO), micro-scale zero valent iron (μZVI), a culture of Dehalococcoides (DHC – the microbes that facilitate the breakdown of chlorinated volatile organic compounds or CVOCs), an oxygen scavenger (OS), and water. The OS was pre-mixed with the water to reduce the dissolved oxygen (DO) concentration below 2.0 mg/ℓ and to reduce the oxidation-reduction potential (ORP) below zero before the other reagents and microbes were added. In total, 1,382 lbs of EVO, 600 lbs of μZVI, 3 liters of DHC culture, and 40 lbs of OS were injected as a 5,020-gallon (total) mixture into 17 borings (IB-1 through IB-15, IB-A, and IB-B) and well SVE-4. Figure 3 shows the locations of the injection borings and SVE-4.

Table 1 lists the total volume and mixture of reducing reagents injected into each boring. Note that the tables included with this report, including Table 1, contain the information requested in

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the Discharge Monitoring Report Form that was included with the WDNR's April 25, 2018, letter to WRR providing a temporary exemption for the injection of remedial materials into the groundwater. During the pilot test, some of the injected reagents were observed in well W-34, which was located 15 feet away from the nearest injection borings.

After the borings were injected, they were abandoned with bentonite, and the surface was patched with asphalt. Borehole abandonment forms are included with this report as Appendix A.

Pre- & Post-Injection Groundwater Sample Collection & Results

To characterize the aquifer and measure its conduciveness for reductive biodegradation of CVOCs, groundwater samples were collected from W-32, W-33, and W-34 in August and October 2017 and May 2018 and from SVE-4 in June 2018 prior to the injection of reducing reagents. To assess the effectiveness of the pilot test, post-injection samples were collected from W-34 and SVE-4 in August and from W-32 through W-34 and SVE-4 in September 2018. Below is a summary of the sample parameters for which each well's samples were analyzed on each date.

Parameter	W-32				W-33				W-34					SVE-4		
	5/17	10/17	5/18	9/18	5/17	10/17	5/18	9/18	8/17	10/17	5/18	8/18	9/18	06/18	8/18	09/18
VOCs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEE			X	X			X	X	X		X		X			X
Sulfate	X			X	X			X	X				X			X
Alkalinity (as $CaCO_3$)	X			X	X			X	X				X			X
Dissolved Fe & Mn	X		X	X	X		X	X	X		X		X			X
Nitrogen (NO_2+NO_3)	X				X						X					
TOC	X			X	X			X			X		X			X
DHC			X	X				X			X		X			X

Notes:
VOCs = Volatile organic compounds
MEE = Methane, ethane, and ethene - breakdown products of vinyl chloride
Fe & Mn = Iron and manganese
NO_2 & NO_3 = Nitrite and nitrate
TOC = Total organic carbon. Includes naturally occurring carbon, VOCs, and carbon injected into the groundwater.

DHC = *Dehalococcoides* – microbes responsible for the degradation of CVOCs in the groundwater under reducing, anaerobic conditions. Includes analyses of Dehalobacter species (DHBt).

Groundwater Sample Results

Table 2 presents a summary of the VOCs, inorganic compounds (sulfate, alkalinity, dissolved iron and manganese, nitrogen), total organic carbon (TOC), and remediation by natural attenuation (RNA – DO, ORP, pH, temperature and conductivity) parameters measured in the groundwater samples collected from W-32 through W-34 and SVE-4. See Figure 2 for well locations. Table 3 present the results of groundwater samples analyzed for microbes (DHC and DHBt). Appendix B contains the laboratory reports for all groundwater samples collected from May through September 2018. Note that the laboratory reports for other wells not located in the pilot-test injection area that were sampled in May 2018 as part of the annual sampling event are also included in Appendix B. The next semi-annual sampling event for compliance wells is scheduled for mid- to late-October, and those results, along with a more detailed discussion of the sample results from May 2018, will be included in the annual *Operations & Maintenance Report* later this year.

The groundwater flow direction in the area where the pilot test injections were conducted is to the west-southwest, as shown on Figure 3, at a gradient of 0.01 ft/ft. Based on the slug tests conducted in 2011, Short, Elliot and Hendrickson calculated that the hydraulic conductivity of the shallow aquifer ranges from 0.75 to 5.6 ft/day.

The analytical results of pre- and post-injection groundwater samples collected from wells W-32 and W-33 downgradient of the pilot test area did not show any significant changes in the concentrations of VOCs or other parameters that could be solely attributed to the injection of reducing reagents during the pilot test. See Tables 2 and 3 for the analytical results of pre- and post-injection samples collected from W-32 and W-33. Though there may be some change in secondary indicator parameters in W-32 and W-33 (i.e. decreasing DO and ORP, the reduction in parent compounds and temporary increase in breakdown products) over the next year, that will likely be superseded by the proposed full-scale injections discussed below that are scheduled to occur in mid-October 2018. Therefore, the remainder of this report will focus on the results of samples collected from W-34 and SVE-4 in the pilot test area.

CVOCs

As shown in Table 2, elevated CVOC concentrations were present in each of the wells prior to the injections of the reducing reagents as part of the pilot test. The concentrations of the parent compounds – tetrachloroethylene (PCE), trichloroethylene (TCE), and trichloroethane (TCA) - were significantly lower in wells W-34 and SVE-4 in August and September 2018. Both W-34 and SVE-4 are within the area where the pilot test injections occurred, so the decrease in CVOC concentrations was expected. Also expected was the temporary increase in concentrations of the daughter breakdown products – dichloroethylene (DCE), vinyl chloride (VC), and dichloroethane (DCA) – measured in August 2018, though the concentrations of those compounds decreased in September 2018. Overall, total VOC concentrations in W-34 decreased from 97,126 micrograms per liter (µg/L) in May 2018 to 40,394 µg/L measured in September 2018. A greater decrease in VOC concentrations was measured in SVE-4, where the total VOC concentration went from 170,690 µg/L in June, before the pilot test activities began, to 25,912 µg/L in September 2018. However, reducing reagents were injected directly into SVE-4 during the pilot test, so the greater decrease in VOC concentrations measured in SVE-4 was not unexpected. See Table 2 for specific compounds and concentrations measured in each sample.

RNA and Inorganic Parameters

Table 2 includes the results of samples collected from W-32, W-33, W-34, and SVE-4 that were analyzed for inorganic and RNA parameters. As shown in Table 2, the DO concentrations in W-34 and SVE-4 decreased from 8.23 milligrams per liter (mg/L) and 1.65 mg/L in May and June, respectively, to 0.47 mg/L to 0.73 mg/L in September. The ORP values measured in W-34 also decreased from +142.7 millivolts (mV) in May 2018 to -46.3 mV in September 2018. Interestingly, the ORP value in SVE-4 increased from -155.7 mV in June 2018 to -54.1 mV in September 2018. The concentrations of sulfate also decreased in W-34 and SVE-4, while concentrations of dissolved iron and manganese increased due to the anaerobic conditions created by the injections. The alkalinity (as calcium carbonate) and pH also increased in W-34 and SVE-4 between May/June 2018 and September 2018. Numerous studies have shown that the optimal range in pH for DHC microbes is between 6.5 to 8.0 s.u., though some microbial activity can still occur with a pH above 5 and below 8.5 s.u. See Table 2 for specific concentrations of each parameter discussed above.

TOC and Microbes

Table 2 includes the results of groundwater samples collected for TOC analyses. As shown in Table 2, TOC concentrations in W-34 went from 28 mg/L in May 2018 to 75 mg/L in September 2018. A groundwater sample was not collected from SVE-4 in June for TOC analyses; however, the TOC concentration measured in SVE-4 in September 2018 was 2,570 mg/L. The carbon serves as an energy source for microbes that facilitate the degradation of chlorinated compounds. A concentration above 20 ppm is considered beneficial for promoting microbial growth, although lesser concentrations can be used by microbes to sustain an anaerobic environment and reductive dechlorination in the groundwater (Wiedemeier, et al – *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* – 1994).

Pre-injection samples were collected in May 2018 from W-32 and W-34 for analyses of DHC and DHBt microbes. Post-injection samples were collected in September 2018 from W-32 through W-34 and SVE-4 for DHC and DHBt microbes. Table 3 presents the results of groundwater samples submitted for microbial analyses. As shown in Table 3, neither of the pre-injection samples collected from W-32 and W-34 contained measurable concentrations of DHC microbes. DHC concentrations between 41.6 and 6,750 cells per milliliter (cells/mL) were measured in post-injection samples collected from W-33, W-34, and SVE-4 in September 2018. Lu et al. proposed a DHC concentration of 1×10^4 cells/mL as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate. Though the DHC concentrations measured in W-33, W-34, and SVE-4 were below that threshold, we believe that the DHC microbes will continue to grow due to the injection of reducing reagents in June 2018 and the proposed injection of additional reagents in October 2018. Another positive indicator was the presence of DHC with the three functional genes that facilitate the complete degradation of PCE and TCE, DCE, and VC. We expect the concentrations of those microbes to increase over time with the full-scale injections, which include a calcium carbonate amendment that will increase the alkalinity and pH of the groundwater above 6.5.

A moderately low DHBt concentration (815 cells/mL) was detected in the pre-injection sample collected from W-34 in May 2018. The DHBt species is responsible for the degradation of TCA and its daughter products; the DHBt concentrations measured in post-injection samples collected from W-34 and SVE-4 were 659,000 and 23,600 cells/mL, respectively.

Interestingly, the highest concentrations of DHC and DHBt were measured in W-33 in September 2018. See Figure 2 for the location of W-33 and Table 3 for the concentrations of DHC and DHBt measured in W-33. Due to its distance from the pilot-test injection area, no pre-injection sample was collected from W-33. We believe that the elevated DHC and DHBt concentrations measured in W-33 are indicative of the naturally-occurring microbes in that area of the site and are not the result of the injection of reducing reagents and microbes during the pilot test in June.

DHC and DHBt were not detected in the post-injection sample collected from W-32 downgradient of the pilot test injection area. The proposed work plan for additional injections includes the injection of microbes and calcium carbonate, along with other reducing reagents, and we believe that the DHC and DHBt concentrations throughout the injected area will grow as a result of the full-scale injections.

Methane, Ethene, Ethane

Table 2 contains the concentrations of methane, ethene, and ethane (MEE) measured in the pre- and post-injection samples. These compounds are one step above the end byproducts of carbon dioxide, water, and chloride ions resulting from reductive degradation of chlorinated ethenes and ethanes, although methane is also generated by several anaerobic reactions, including the breakdown of naturally-occurring and man-made carbon compounds including vegetable oil.

Interestingly, the post-injection MEE concentrations decreased in wells W-32 and W-33 downgradient of the area where the pilot test injections were conducted; however, due to their distance from the pilot test area, we do not believe the decrease in their concentrations are due to the injection activities. Not surprisingly, MEE concentrations increased in W-34 within the pilot test area, and the highest post-injection MEE concentrations were measured in SVE-4. See Table 2 for MEE concentrations measured in each well.

To evaluate whether methane gas was being generated at concentrations that could pose a potential risk of explosion, GF used a flame-ionization detector (FID) equipped with a filter to measure methane gas concentrations in a vapor pin (VP-1) installed next to underground utility lines that pass through the pilot test area and enter the office building. The first reading was collected on June 10, 2018, after the injection activities had been completed. On October 2, 2018, WRR used an FID meter without a filter to measure the total VOC concentrations in VP-1. Both

the June 10th and October 2nd readings were below the meters' detection limits (<0.1 parts per million or ppm). See Figure 3 for the location of VP-1.

The lower explosive limit (LEL) is 5 percent gas by volume or 50,000 ppm. Based on the FID readings and the relatively low dissolved methane concentrations measured in the groundwater (160 μg/L, equivalent to parts per billion or ppb), we do not believe that methane gas does or will pose a risk of accumulating in the sub-surface soil gas at concentrations approaching 10 percent of its LEL (5,000 ppm). However, GF and/or WRR field staff will continue to monitor methane concentrations in VP-1 to ensure that is the case.

Summary of Pilot-Test Injection Effectiveness

Taken collectively, the decrease in DO and sulfate concentrations, the negative ORP values, and the increase in dissolved iron and manganese concentrations measured in the post-injection samples collected from W-34 and SVE-4 are indicative of an anaerobic environment conducive to the DHC and DHBt microbes that facilitate reductive dechlorination of CVOCs. We believe that the concentrations of DHC and DHBt microbes in the pilot test area would increase over time, even without the supplemental injections proposed below, due to the anaerobic environment and injected carbon compounds favorable to their growth and consequent decrease in CVOC concentrations. However, the injection of calcium carbonate will increase pH, which will in turn increase microbial growth and activity.

As discussed above, the addition of the microbes along with the other reducing reagents significantly reduced the concentrations of the parent CVOCs. The most significant decreases in parent CVOC concentrations measured in W-34 and SVE-4 were:

- 1,1,1-TCA, which decreased from 31,000 to 2,830 μg/L in W-34 and from 29,800 to 456 μg/L in SVE-4.
- 1,1,2-TCA, which decreased from 8,180 to <221 μg/L in SVE-4.
- PCE, which decreased from 9,800 to <40.8 μg/L in W-34 and from 15,600 to 518 μg/L in SVE-4.
- TCE, which decreased from 39,000 to 110 μg/L in W-34 and from 13,200 to 339 μg/L in SVE-4.

Additionally, the concentrations of daughter products 1,1-DCA, 1,2-DCA, 1,1-DCE, and cis-1,2-DCE also significantly decreased in SVE-4. See Table 2 for specific concentrations of the daughter

products measured in pre- and post-injection samples from SVE-4. We expect to see a continued decrease in parent and daughter products in W-34 and SVE-4 over the next few years.

Work Plan for Full-Scale Injections

Taken collectively, we believe that the pilot-test injections were successful in reducing CVOC concentrations and creating an anaerobic environment conducive to microbe-facilitated reductive dechlorination. Additionally, the average flow rate of the injections was generally above 3.5 gpm, which should allow the full-scale injections to be completed in a relatively time-efficient and economical manner.

GF proposes to conduct full-scale injections in the northern portion of the WRR site during the weeks of October 15 and 22, 2018. Figure 2 is a site plan showing the area where the full-scale injections would occur. Due to the volume and scale of the proposed injection activities, the full-scale injections will be conducted in phases. The first phase of injections would consist of injecting 15,000 gallons of a mixture of the following reagents into 30 borings using a Geoprobe:

- Micro Zero Valent Iron (μZVI) –1,200 lbs
- Newman Zone 55 EVO - 9,000 lbs
- Newman Zone OS – 200 lbs
- SDC-9 DHC microbes – 15 liters
- Neutral Zone – 4,800 lbs
- Sodium bicarbonate – up to 100 lbs, as needed, to raise the pH of the mixture to 7.5

The borings that will receive the reagents during the first phase of injections are highlighted in red on Figure 3. Those borings are located in the areas where CVOC concentrations are the highest. The second phase of injection will occur in early 2019 in the borings highlighted in green on Figure 3 where the CVOC concentrations are less. GF will prepare a separate work plan for the second phase of injections that will list the total volume and mass of reagents that will be injected.

Neutral Zone is a calcium carbonate amendment that will raise the alkalinity and pH of the groundwater, both of which are important factors in microbially facilitated degradation of chlorinated compounds. Because they were not included with the previous work plan, copies of

the product information and safety data sheet for Neutral Zone are attached to this report as Appendix C.

Figure 4 is an enlargement of the area where the full-scale injections are proposed. Note that two of the proposed injection boring locations to the southeast of SVE-4 are not shown on Figure 4. See Figure 2 for the area southeast of SVE-4 where the full-scale injections would occur that are not shown on Figure 4.

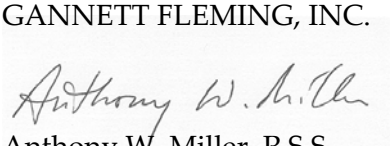
As discussed in the WDNR's April 25, 2018, letter to WRR providing a temporary exemption for the injection of remedial materials into the groundwater, follow-up samples would be collected from W-32 and W-34 in February 2019 and analyzed for VOC, microbes, and inorganic and RNA parameters. Additional samples may also be collected from SVE-4 and W-33 for some of those same parameters, as necessary, to evaluate groundwater conditions within and downgradient of the injected areas.

Attached to this work plan as Appendix D is a Notice of Intent - Contaminated Groundwater from Remedial Action Operations form for Wisconsin Pollutant Discharge Elimination System (WPDES) Wastewater Discharge Permit WI-0046566-07. Please review the attached data and let us know if you have any questions or need additional information to approve the proposed work plan for full-scale injections. So you know, I will be traveling the week of October 6th but can be reached on my cell phone at 608-354-7730 if you have any questions.

Thanks,

Sincerely,

GANNETT FLEMING, INC.



Anthony W. Miller, P.S.S.
Senior Environmental Scientist

AWM/jec/Enc.
ecc: Jim Hager, Bob Fuller, Becky Anderson (WRR)

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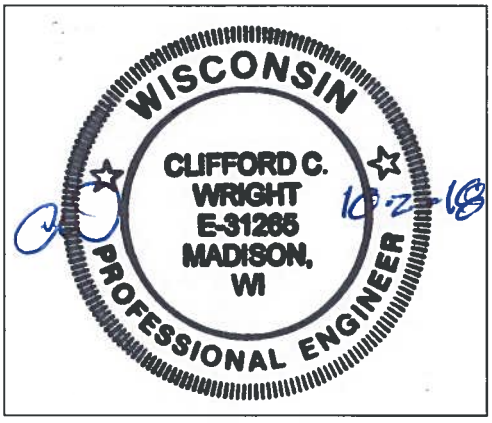
ENGINEERING AND HYDROGEOLOGIST CERTIFICATIONS

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print Name Clifford C. Wright	Title Project Engineer
Signature Clifford C. Wright	Date 10-2-18

P.E. Seal for E-31265:



I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print Name Clifford C. Wright	Title Project Geologist
Signature Clifford C. Wright	Date 10-2-18

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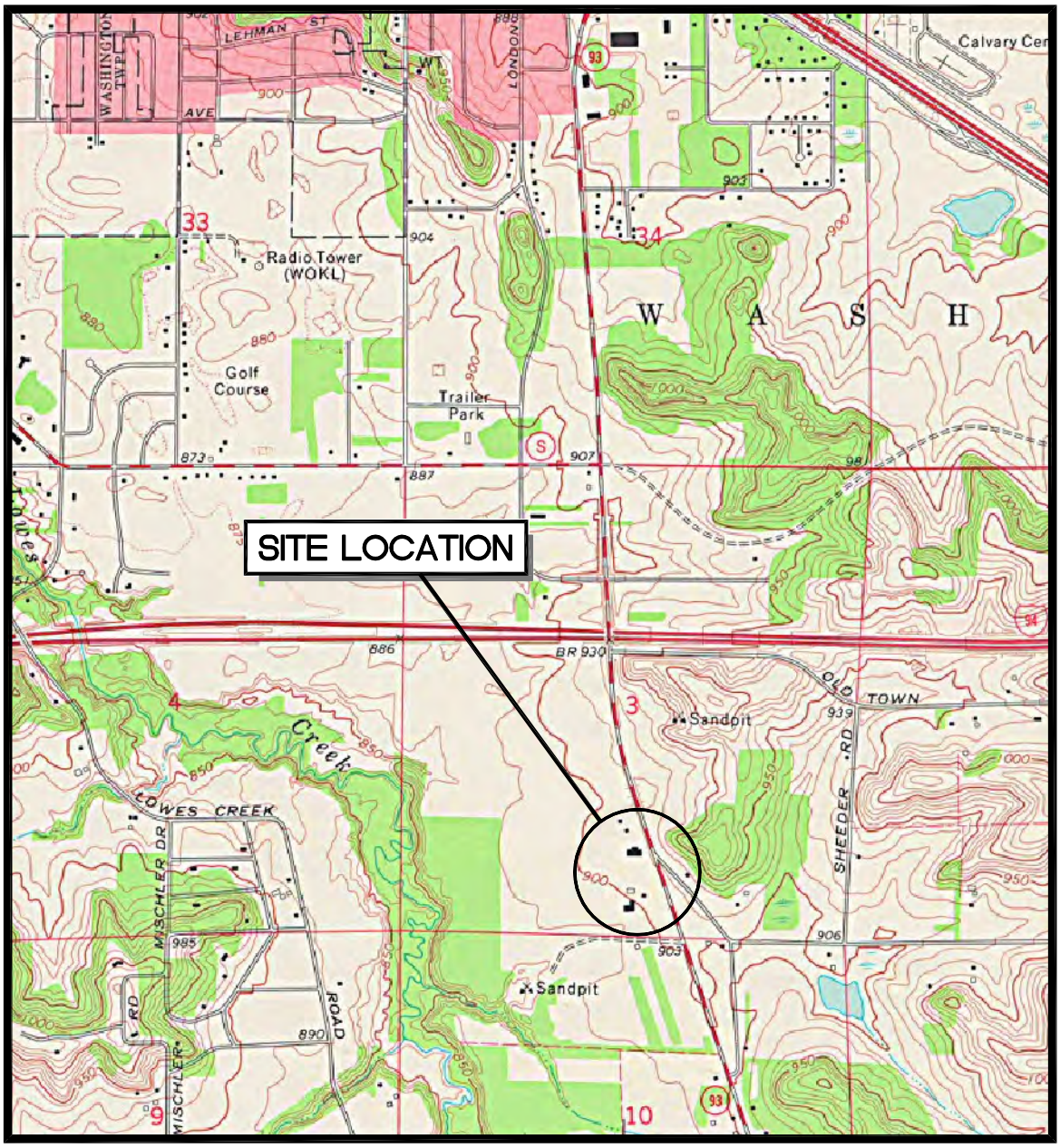
FIGURE 1



APPROX. SCALE: 1 INCH = 2,150 FEET

7.5 MIN TOPOGRAPHIC MAP
EAU CLAIRE EAST, WISCONSIN
1972

LOCATION MAP

WRR ENVIRONMENTAL SERVICES, CO., INC.
5200 RYDER ROAD
EAU CLAIRE, WISCONSIN

081618
awm_R55929-005_2018_02WP_F01

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FIGURE 2

0 80

Approximate Scale In Feet

NORTHWEST ENTERPRISES, INC.

SEE FIGURE 4 FOR PROPOSED FULL-SCALE INJECTION AREA

SEE FIGURE 3 FOR ENLARGEMENT OF PILOT TEST AREA

PILOT TEST INJECTION AREAS

DOCK #6 BUILDING

E-I BUILDING

NORTHERN AI/SVE SYSTEM

OFFICE

BULK LOADING AND UNLOADING AREA CANOPY

DRUM AND TOTE STORAGE SHEDS (1-17)

STATE HIGHWAY "93"

BUILDING A

MIDDLE AI/SVE SYSTEM

E-II BLDG.

E-II WAREHOUSE

CC-7 BLDG.

FUELS BLDG.

360,000-GAL. RESERVOIR

TURBO STRIPPER BLDG.

SOUTHERN AI/SVE SYSTEM

SVE WELL

W-1B (AI WELL)

DUMPSTER SHELTER

RESCO BUILDING

OVERHEAD POWER LINES

GP-59 GP-90 GP-79 GP-88 GP-87 GP-89 GP-45 GP-86 GP-78 GP-77 GP-60 GP-44 GP-46 GP-47 GP-48 GP-49 GP-83 GP-61 GP-43 GP-62 GP-72 GP-54 GP-52 GP-56 GP-71 GP-53 GP-51 GP-55 GP-57 GP-63 GP-42 GP-41 GP-69 GP-73 GP-84 GP-74 GP-34 GP-64 GP-68 GP-66 GP-76 GP-33 GP-75 GP-36 GP-37 GP-81 GP-58 GP-82 GP-32 GP-40 GP-67 GP-38 GP-80 GP-85 GP-39 GP-31 GP-35 GP-30 GP-29 GP-28 GP-70 GP-19 GP-19R

W-2,A,B W-3,A,B W-28 W-32 W-34 W-33 W-8 (SVE WELL) W-6 W-31A,B W-25 W-24 W-1A W-1B W-1D W-5 W-7,A W-4 W-1 W-23

RW-1 RW-2 RW-3 RW-4 RW-5 RW-10 RW-12 RW-11 RW-8 RW-13 RW-9 RW-6

SVE-4 SVE-5

PW-1 TW-1 DW-1 MP-1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

LEGEND

- PILOT TEST INJECTION AREAS
- PROPOSED FULL-SCALE INJECTION AREA
- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- SVE WELL
- RECOVERY WELL
- PRODUCTION WELL
- DRINKING WATER WELL
- 1-INCH-DIAMETER MONITORING POINT
- ABOVEGROUND STORAGE TANK (APPROXIMATE LOCATION)
- POWER POLE
- LIGHT POLE
- FENCE
- SURFACE WATER DRAINAGE DITCH

NOTES

1. THIS DRAWING IS BASED ON ARCMAP FILES PROVIDED BY SHORT, ELLIOT, AND HENDRICKSON; ESRI AERIAL PHOTOGRAPHY AND SURVEY DATA FROM ECG INC. DATED MAY 2, 1996.
2. SITE FEATURES ARE APPROXIMATE.
3. THE LOCATIONS OF STORAGE TANKS ARE APPROXIMATE
4. BORINGS GP-28 THROUGH GP-58 WERE SAMPLED IN SEPTEMBER 2013. BORINGS GP-59 THROUGH GP-66 WERE SAMPLED IN NOVEMBER 2013. BORINGS GP-67 THROUGH GP-70 WERE SAMPLED IN SEPTEMBER 2014. BORINGS GP-71 THROUGH GP-85 WERE SAMPLED IN SEPTEMBER 2016. BORINGS GP-86 THROUGH GP-90 WERE SAMPLED IN JUNE 2018.

SITE PLAN SHOWING PILOT TEST AND PROPOSED INJECTION AREAS

WRR ENVIRONMENTAL SERVICES, CO., INC.
5200 RYDER ROAD
EAU CLAIRE, WISCONSIN

092618
awm_R55929-005_2018_02WP_F02

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FIGURE 3

GP-59
9/13
(18–22')
ALL CVOC=ND

GP-90
6/18
(14.6–16')
PCE=5.6
(22–26')
PCE=23.3

GP-79
9/16
(15–19')
1,1–DCE= 26.3
C1,2–DCE= 167
PCE= 1,700
1,1,1–TCA= 951
1,1,2–TCA= 18.1
TCE= 794

DOCK #6
BUILDING

GP-88
6/18
(16.8–20')
PCE= 24.7
1,1,2–TCA= 128
TCE= 93.3
(24–28')
ALL CVOC <
NR 140 ES OR ND

GP-89
6/18
(18.3–20')
ALL CVOC <
NR 140 ES OR ND

GP-45
9/13
(14–18')
1,1–DCE= 9.1
PCE= 693
1,1,1–TCA= 329
TCE= 292

GP-77
9/16
(16–20')
CF= 118
1,1–DCA= 979
1,1–DCE= 1,240
1,2–DCA= 127
C1,2–DCE= 14,600
1,2–DCP= 336
MC= 25.5
PCE= 2,960
1,1,1–TCA= 34,500
1,1,2–TCA= 746
TCE= 25,200

GP-86
6/18
(16–20')
1,1–DCE= 30
C1,2–DCE= 305
PCE= 368
1,1,1–TCA= 1,090
1,1,2–TCA= 35.1
TCE= 1,340

GP-87
6/18
(16–20')
PCE= 10.2
1,1,2–TCA= 8.4
TCE= 39.1
(24–28')
ALL CVOC <
NR 140 ES OR ND

GP-78
9/16
(15–19')
C1,2–DCE= 117
PCE= 45.2
1,1,1–TCA= 365
TCE= 243

GROUNDWATER
FLOW DIRECTION

GP-60
9/13
(15–17')
PCE=28
(20–22')
ALL CVOC < NR 140 ES OR ND

W-34
(12.8–21.4')

	10/17	5/18	8/18	9/18
1,1–DCA=	1,510	–1,200	–2,110	–1,720
1,1–DCE=	2,470	–1,900	–2,040	–1,190
1,2–DCA=	134	–140	–107	–102
C1,2–DCE=	29,800	–7,800	–35,200	–32,400
1,2–DCP=	413	–340	–255	–207
MC=	1,670	–3,300	–1,150	–1,080
PCE=	5,850	–9,800	–46	–<40.8
1,1,1–TCA=	31,000	–31,000	–1,620	–2,830
1,1,2–TCA=	1,140	–870	–632	–588
TCE=	26,000	–39,000	–1,530	–110
VC=	<21.9	–<10	–103	–66.6

W-32
(9.7–16.5')

	10/17	5/18	9/18
1,1–DCE=	241	–480	–317
C1,2–DCE=	323	–890	–262
PCE=	3,330	–3,900	–4,130
1,1,1–TCA=	5,430	–9,100	–6,980
TCE=	5,650	–8,300	–6,700
MC=	ND	–ND	–61

W-2
05/18
(9.8–14.9')
PCE=41
TCE=6.6

W-2A & W-2B
05/18
(105.4–110.4) & (49.7–54.7)
ALL CVOC < NR 140 ES OR ND

GP-44
9/13
(13–17')
1,1–DCE= 347
MC= 46.8
PCE= 2,080
1,1,1–TCA= 7,500
TCE= 4,350

GP-46
9/13
(13–18')
1,1–DCA= 1,050
C1,2–DCE= 5,550
1,2–DCP= 211
PCE= 3,830
1,1,1–TCA= 30,300
1,1,2–TCA= 285
TCE= 36,500

GP-48
9/13
(15–19')
1,1–DCA= 1,260
1,1–DCE= 546
C1,2–DCE= 25,400
1,2–DCP= 466
MC= 5,300
PCE= 12,500
1,1,1–TCA= 24,500
1,1,2–TCA= 6,840
TCE= 22,600

PILOT TEST
INJECTION
AREAS

SVE-4

	6/18	8/18	9/18
1,1–DCA=	2,270	–1,070	–995
1,1–DCE=	2,160	–127	–225
1,2–DCA=	338	–<112	–<112
C1,2–DCE=	82,300	–23,700	–21,500
MC=	4,680	–728	–1,620
PCE=	15,600	–515	–518
1,1,1–TCA=	29,800	–315	–456
1,1,2–TCA=	8,180	–<221	–<221
TCE=	13,200	–341	–339
VC=	152	–164	–259

VP-1

GP-47
9/13
(20–24')
1,1–DCA= 170
1,2–DCA= 43.1
C1,2–DCE= 3,300
1,2–DCP= 50.3
MC= 39.2
PCE= 2,210
1,1,1–TCA= 3,270
1,1,2–TCA= 2,070
TCE= 3,760

OFFICE

BUILDING E-1

0 25

Approximate
Scale In Feet

LEGEND

- PILOT TEST AREA
- PILOT TEST INJECTION BORING LOCATION
- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- SVE WELL
- UNDERGROUND ELECTRICAL
- FENCE
- PROPERTY LINE
- POWER POLE
- LIGHT POLE
- SURFACE WATER DRAINAGE DITCH

NOTES

1. THIS DRAWING IS BASED ON ARCMAP FILES PROVIDED BY SHORT, ELLIOT, AND HENDRICKSON; ESRI AERIAL PHOTOGRAPHY AND SURVEY DATA FROM ECG INC. DATED MAY 2, 1996.
2. SITE FEATURES ARE APPROXIMATE.
3. ONLY COMPOUNDS WITH CONCENTRATIONS ABOVE THEIR NR 140 ES ARE SHOWN.
4. INJECTION BORINGS IB-1 THROUGH IB-15, IB-A AND IB-B, WERE INJECTED WITH REDUCING REAGENTS IN JUNE 2018.

PILOT TEST INJECTION BORING LOCATIONS

WRR ENVIRONMENTAL SERVICES, CO, INC.
5200 RYDER ROAD
EAU CLAIRE, WISCONSIN

100218
awm_R55929-005_2018_02WP_F03

Gannett Fleming

FIGURE 4

PROPOSED INJECTION BORING LOCATIONS

WRR ENVIRONMENTAL SERVICES, CO., INC.
5200 RYDER ROAD
EAU CLAIRE, WISCONSIN

GP-59
GP-90
GP-88
GP-79
GP-87
GP-45
GP-86
GP-60
GP-77
GP-78
W-34
W-2, W-2A & W-2B
W-32
GP-44
GP-46
GP-47
SVE-4
GP-48
VP-1

DOCK #6 BUILDING
OFFICE
BUILDING E-1

PILOT TEST INJECTION AREAS

NOTES

1. THIS DRAWING IS BASED ON ARCMAP FILES PROVIDED BY SHORT, ELLIOT, AND HENDRICKSON; ESRI AERIAL PHOTOGRAPHY AND SURVEY DATA FROM ECG INC. DATED MAY 2, 1996
2. SITE FEATURES ARE APPROXIMATE.
3. NOT ALL PROPOSED INJECTION BORINGS ARE SHOWN ON THIS FIGURE. TWO BORINGS WOULD BE LOCATED IN THE AREA BETWEEN BUILDING E-II AND THE SOUTHERN PORTION OF THE OFFICE BUILDING, SOUTHEAST OF SVE-4.

LEGEND

- PILOT TEST AREA
- PILOT TEST INJECTION BORING LOCATION
- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- SVE WELL
- UNDERGROUND ELECTRICAL
- FENCE
- PROPERTY LINE
- POWER POLE
- LIGHT POLE
- SURFACE WATER DRAINAGE DITCH
- PROPOSED PHASE I INJECTION BORING
- PROPOSED PHASE II INJECTION BORING

0 25
Approximate Scale In Feet

100118
awm_R55929-005_2018_02WP_F04

WRR ENVIRONMENTAL SERVICES, INC. CO.
EAU CLAIRE, WISCONSIN

TABLE 1

PILOT-TEST INJECTIONS DATA SUMMARY - JUNE 2018

Boring/ Well ID	Interval Injected (ft bgs)	Total Time (min)	Volume Injected (gal)	Avg Flow Rate (gpm)	Comments	Injected Reagents (per 250-gal batch)
IB-A	19 - 25	25	10	0.4	Daylighting at all depths	0.25-gal NZ OS; 100 lbs of NZ 55; 40 lbs of MicroZVI; 0.15-liters of SDC-9
IB-B	18 - 25	10	20	0.5	Angled well, daylighting at all depths	
IB-1	16 - 25	117	500	4.3	Daylighting when injecting between 21-25 ft	
IB-2	18 - 25	150	460	3.1	Daylighting when injecting between 23-25 ft	
IB-3	17 - 25	95	515	5.4	Daylighting when injecting between 24-25 ft	
IB-4	16 - 25	225	425	1.9	Minor daylighting at 21-25 & 16-25 ft	
IB-5	17 - 25	110	540	4.9	Daylighting when injecting between 24-25 ft	
IB-6	19 - 22	60	250	4.2	Daylighting when injecting between 18-22 ft	0.25-gal NZ OS; 40 lbs of NZ HRO; 30 lbs of MicroZVI; 0.15-liters of SDC-9
IB-7	15 - 22	45	250	5.6	Low backpressure, high flow	
IB-8	12.5 - 22	45	250	5.6	Low backpressure, high flow	
IB-9	16 - 22	50	250	5.0	Low backpressure, high flow	
IB-10	16 - 22	55	250	4.5	Low backpressure, high flow	
IB-11	16 - 22	52	265	5.1	Low backpressure, high flow	
IB-12	15.5 - 20	40	200	5.0	Low backpressure, high flow	0.25-gal NZ OS; 30 lbs of NZ HRO; 0.10-liters of SDC-9
IB-13	15.5 - 20	40	200	5.0	Low backpressure, high flow	
IB-14	15.5 - 20	60	210	3.5	High backpressure, good flow	
IB-15	15.5 - 20	47	205	4.4	Low backpressure, good flow	
SVE-4	13.4 - 19.2	40	220	5.5	Gravity feed used to inject into well	0.25-gal NZ OS; 20 lbs of NZ 55; 10 lbs of MicroZVI; 0.15-liters of SDC-9

NOTES:

A total of 1,382 lbs of emulsified vegetable oil (EVO), 3-liters of DHC microbes, 40 lbs of an oxygen scavenger (OS), and 600 lbs of micro-scale zero valent iron (µZVI) were injected into the borings and well listed above.

Each boring was flushed with 5 to 10 gallons of water treated with NZ OS following the injection of reducing reagents. Well SVE-4 was flushed with 50 gallons of OS water.

Boring diameter = 1.5 inch.

Borehole diameter of SVE-4 = 8.25 inch, and the well is constructed of 4-inch diameter PVC.

NZ OS = Newman Zone Oxygen Scavenger.

NZ 55 = Newman Zone Emulsified Vegetable Oil (EVO) with lactate.

NZ HRO = Newman Zone EVO without lactate.

MicroZVI = Regenesis micro-scale Zero Valent Iron.

SDC-9 = A mixture of Dehalococcoidies (DHC) and Dehalobacter (DHBt) microbes.

WRR ENVIRONMENTAL SERVICES CO., INC.
EAU CLAIRE, WISCONSIN

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN W-32
MAY 2017 - SEPTEMBER 2018

Compound	NR 140 ES	NR 140 PAL	05/18/17	10/11/17	05/09/18	09/06/18
VOC Concentrations in micrograms per liter (µg/ℓ)						
Acetone	**9,000**	*1,800*	<295	<295	610	<274
2-Butanone	**4,000**	*800*	<298	<298	150	<294
1,1-Dichloroethane	**850**	*85*	*127*	*92.6* J	*140*	*98.0* J
1,1-Dichloroethene	**7**	*0.7*	**359**	**241**	**480**	**317**
cis-1,2-Dichloroethene	**70**	*7*	**366**	**323**	**230**	**262**
Ethylbenzene	**700**	*140*	<50.0	<50.0	32 J	<21.8
Methylene Chloride	**5**	*0.5*	<28	<23.3	<28	**61.2** J
Tetrachloroethene	**5**	*0.5*	**4,380**	**3,330**	**3,900**	**4,130**
Toluene	**800**	*160*	<50.0	<50.0	140	<17.2
Trichloroethene	**5**	*0.5*	**6,480**	**5,650**	**8,300**	**6,700**
1,1,1-Trichloroethane	**200**	*40*	**7,780**	**5,430**	**9,100**	**6,980**
1,1,2-Trichloroethane	**5**	*0.5*	**21.1** J	<19.7	<20	<55.2
Xylenes	**2,000**	*400*	<150	<150	137 J	<72.7
Ethane	**NSV**		NA	NA	12	<0.58
Ethene			NA	NA	<0.41	<0.52
Methane			NA	NA	17	<1.4
Total VOCs	**NSV**		19,513	15,067	23,248	18,548
Other Constituents in milligrams per liter (mg/ℓ)						
Sulfate	**250**	*125*	66.2	NA	NA	57.8
Alkalinity, Total as $CaCO_3$	**NSV**		92.1	NA	NA	104
Iron, Dissolved	**0.3**	*0.15*	0.0548 J	NA	<0.015	0.0596
Manganese, Dissolved	**0.05**	*0.0025*	**0.363**	NA	<0.16	0.114
Nitrogen (NO_2+NO_3)	**NSV**		1.6	NA	NA	NA
Total Organic Carbon	**NSV**		9.1	NA	NA	10.9
RNA Parameters (units as shown)						
Temp (^oC)	**NSV**		10.97	NA	NA	17.45
Cond. (µS/cm)			0.889	NA	NA	0.985
DO (mg/L)			8.15	NA	NA	4.53
pH			6.00	NA	NA	5.84
ORP (mV)			150.3	NA	NA	92.0

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN W-33
MAY 2017 - SEPTEMBER 2018

Compound	NR 140 ES	NR 140 PAL	05/18/17	DUP 5/18/17	10/11/17	05/10/18	09/06/18
VOC Concentrations in micrograms per liter (µg/ℓ)							
Acetone	**9000**	*1,800*	<369	<369	<369	40	<343
Benzene	**5**	*0.5*	<62.5	<62.5	<62.5	*3.7*	<30.8
sec-Butylbenzene	NSV		<273	<273	<273	0.86 J	<106
Chlorobenzene	NSV		<62.5	<62.5	<62.5	1.1	<88.9
Chloroform	**6**	*0.6*	<312	<312	<312	**16**	<159
Chloroethane	**400**	*80*	*180*	*212*	<46.8	<0.29	*198* J
Chloromethane	**30**	*3*	<62.5	<62.5	<62.5	0.40 J	<274
1,1-Dichloroethane	**850**	*85*	**3,110**	**3,310**	**2,280**	**2,000**	**2,270**
1,2-Dichloroethane	**5**	*0.5*	**21.3** J	<21.0	<21.0	**16**	<35.0
1,1-Dichloroethene	**7**	*0.7*	**78.2** J	**95.9** J	**100** J	**61**	**87.1** J
cis-1,2-Dichloroethene	**70**	*7*	**8,800**	**9,650**	**8,640**	**8,900**	**9,810**
1,2-Dichlorobenzene	**600**	*60*	<62.5	<62.5	<62.5	12	<88.2
1,3-Dichlorobenzene	**600**	*120*	<62.5	<62.5	<62.5	0.85 J	<78.5
1,4-Dichlorobenzene	**75**	*15*	<62.5	<62.5	<62.5	2.2	<118
Dichlorodifluoromethane	**1000**	*200*	<28.0	<28.0	<28.0	1.9	<62.5
trans-1,2-Dichloroethene	**100**	*20*	*39.6* J	*43.2* J	*39.2* J	*99*	<136
1,2-Dichloropropane	**5**	*0.5*	<29.1	<29.1	<29.1	**15**	<35.3
Ethylbenzene	**700**	*140*	<62.5	<62.5	<62.5	98	100 J
Isopropylbenzene	NSV		<17.9	<17.9	<17.9	6.5	<49.1
p-Isopropyltoluene	NSV		<62.5	<62.5	<62.5	1.7	<100
4-Methyl-2-pentanone	**500**	*50*	<268	<268	<268	*51*	<191
Methylene Chloride	**5**	*0.5*	**52.9** J	**60.7** J	<29.1	**220**	**297** J
Methyl tert-butyl ether	**60**	*12*	<21.8	<21.8	<21.8	2.6	<156
Naphthalene	**100**	*10*	<312	<312	<312	*10*	<147
n-Propylbenzene	NSV		<62.5	<62.5	<62.5	8.4	<101
Tetrachloroethene	**5**	*0.5*	**214**	**210**	<62.5	**280**	**293**
Toluene	**800**	*160*	<62.5	<62.5	<62.5	*160*	120 J
Trichloroethene	**5**	*0.5*	**215**	**199**	**62.1** J	**260**	**212**
1,1,1-Trichloroethane	**200**	*40*	**4,330**	**4,910**	**2,230**	**2,000**	**2,590**
1,1,2-Trichloroethane	**5**	*0.5*	**34.8** J	**29.1** J	<24.7	**18**	<69.0
Trimethylbenzenes	**480**	*96*	<125	<125	<125	*102*	<214
Vinyl chloride	**0.2**	*0.02*	**88.9** J	**96.2** J	**221**	**160**	**212**
Xylenes	**2,000**	*400*	<187.5	<62.5	<223.2 J	*490*	*440* J

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN W-33
MAY 2017 - SEPTEMBER 2018

Compound	NR 140 ES	NR 140 PAL	05/18/17	DUP 5/18/17	10/11/17	05/10/18	09/06/18
Ethane	NSV		NA	NA	NA	8.7	1.5 J
Ethene			NA	NA	NA	39	6.4
Methane			NA	NA	NA	73	11.6
Total VOCs			17,165	18,816	13,671	15,159	16,649
Other Constituents in milligrams per liter (mg/ℓ)							
Sulfate	**250**	*125*	25.8	NA	NA	NA	39.4
Alkalinity, Total as $CaCO_3$	NSV		266	NA	NA	NA	256
Iron, Dissolved	**0.3**	*0.15*	**24.5**	NA	NA	**120**	**54.5**
Manganese, Dissolved	**0.05**	*0.0025*	**1.18**	NA	NA	**7.5**	**4.12**
Nitrogen (NO_2+NO_3)	NSV		<0.095	NA	NA	NA	NA
Total Organic Carbon	NSV		15.1	NA	NA	NA	10.8
RNA Parameters (units as shown)							
Temp (^oC)	NSV		10.88	NA	NA	NA	17.16
Cond. (µS/cm)			1.250	NA	NA	NA	6.039
DO (mg/L)			8.27	NA	NA	NA	1.63
pH			6.45	NA	NA	NA	6.31
ORP (mV)			-45.4	NA	NA	NA	23.8

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN W-34
AUGUST 2017 - SEPTEMBER 2018

Compound	NR 140 ES	NR 140 PAL	08/01/17	10/11/17	DUP 10/11/17	05/09/18	08/15/18	09/06/18
VOC Concentrations in micrograms per liter (µg/ℓ)								
Chloroform	**6**	*0.6*	<625	<312	<312	**96**	<159	<159
1,1-Dichloroethane	**850**	*85*	**994**	**1,420**	**1,510**	**1,200**	**2,110**	**1,720**
1,2-Dichloroethane	**5**	*0.5*	**135** J	**134**	**128**	**140**	**107** J	**102** J
1,1-Dichloroethene	**7**	*0.7*	**2,440**	**2,150**	**2,470**	**1,900**	**2,040**	**1,190**
cis-1,2-Dichloroethene	**70**	*7*	**23,800**	**28,900**	**29,800**	**7,800**	**35,200**	**32,400**
1,2-Dichlorobenzene	**600**	*60*	<125	*83.8* J	*86.7* J	48	<88.2	<88.2
1,2-Dichloropropane	**5**	*0.5*	**367**	**413**	**403**	**340**	**255**	**207**
Ethylbenzene	**700**	*140*	<125	<62.5	<62.5	110	<27.3	<27.3
4-Methyl-2-pentanone	**500**	*50*	<535	<268	<268	*68*	<191	<191
Methylene Chloride	**5**	*0.5*	**704**	**1,640**	**1,670**	**3,300**	**1,150**	**1,080**
Tetrachloroethene	**5**	*0.5*	**3,190**	**5,440**	**5,850**	**9,800**	**46.0** J	<40.8
Toluene	**800**	*160*	<125	*213*	*195*	**800**	*302* J	82.3 J
Trichloroethene	**5**	*0.5*	**17,900**	**24,900**	**26,000**	**39,000**	**1,530**	**110** J
1,1,1-Trichloroethane	**200**	*40*	**30,900**	**28,300**	**31,000**	**31,000**	**1,620**	**2,830**
1,1,2-Trichloroethane	**5**	*0.5*	**937**	**1,140**	**1,010**	**870**	**632**	**588** J
Vinyl chloride	**0.2**	*0.02*	<43.9	<21.9	<21.9	<10	**103** J	**66.6** J
Xylenes	**2,000**	*400*	<375	<230 J	<245 J	*640*	<91.2	<91.2
Ethane	**NSV**		0.76 J	NA	NA	<0.21	NA	32.1
Ethene			0.57 J	NA	NA	3.8 J	NA	30.2
Methane			<1.4	NA	NA	9.8	NA	18.0
Total VOCs			81,368	94,839	100,243	97,126	45,095	40,456
Other Constituents in milligrams per liter (mg/ℓ)								
Sulfate	**250**	*125*	53.4	NA	NA	NA	NA	10.1 J
Alkalinity, Total as $CaCO_3$	**NSV**		76.8	NA	NA	NA	NA	194
Iron, Dissolved	**0.3**	*0.15*	**19.4**	NA	NA	**1.1**	NA	**131**
Manganese, Dissolved	**0.05**	*0.0025*	NA	NA	NA	**4.4**	NA	**7.97**
Nitrogen (NO_2+NO_3)	**NSV**		NA	NA	NA	0.30	NA	NA
Total Organic Carbon	**NSV**		NA	NA	NA	28	NA	75.0
RNA Parameters (units as shown)								
Temp (^oC)	**NSV**		NA	14.78	NA	13.80	13.68	15.40
Cond. (µS/cm)			NA	4.924	NA	6.067	6.001	5.668
DO (mg/L)			NA	3.68	NA	8.23	0.46	0.47
pH			NA	5.64	NA	5.23	5.84	6.48
ORP (mV)			NA	183.5	NA	142.7	-92.2	-44.3

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN SVE-4
JUNE 2018 - SEPTEMBER 2018

Compound	NR 140 ES	NR 140 PAL	06/05/18	08/15/18	09/06/18
VOC Concentrations in micrograms per liter (µg/ℓ)					
Acetone	**9000**	*1,800*	*6,880* J	<1,100	<1,100
1,1-Dichloroethane	**850**	*85*	**2,270**	**1,070**	**995**
1,2-Dichloroethane	**5**	*0.5*	**338** J	<112	<112
1,1-Dichloroethene	**7**	*0.7*	**2,160**	**127** J	**255** J
cis-1,2-Dichloroethene	**70**	*7*	**82,300**	**23,700**	**21,500**
1,2-Dichloropropane	**5**	*0.5*	**445** J	<113	<113
4-Methyl-2-pentanone	**500**	*50*	**4,170**	<613	<613
Methylene Chloride	**5**	*0.5*	**4,680**	**728** J	**1,620** J
Tetrachloroethene	**5**	*0.5*	**15,600**	**551**	**518**
Toluene	**800**	*160*	*515* J	<68.8	**69.2** J
Trichloroethene	**5**	*0.5*	**13,200**	**341** J	**339** J
1,1,1-Trichloroethane	**200**	*40*	**29,800**	**315** J	**456**
1,1,2-Trichloroethane	**5**	*0.5*	**8,180**	<221	<221
Vinyl chloride	**0.2**	*0.02*	**152** J	**164** J	**259** J
Ethane	**NSV**		NA	NA	306
Ethene			NA	NA	409
Methane			NA	NA	160
Total VOCs			170,690	26,996	26,886
Other Constituents in milligrams per liter (mg/ℓ)					
Sulfate	**250**	*125*	NA	NA	<5.0
Alkalinity, Total as $CaCO_3$	**NSV**		NA	NA	355
Iron, Dissolved	**0.3**	*0.15*	NA	NA	**689**
Manganese, Dissolved	**0.05**	*0.0025*	NA	NA	**9.81**
Nitrogen (NO_2+NO_3)	**NSV**		NA	NA	NA
Total Organic Carbon	**NSV**		NA	NA	2,570
RNA Parameters (units as shown)					
Temp (^oC)	**NSV**		20.5	14.93	14.81
Cond. (µS/cm)			1.462	3.867	3.544
DO (mg/L)			1.65	0.30	1.68
pH			6.8	5.9	6.28
ORP (mV)			-155.7	-112.9	-54.1

TABLE 2

SUMMARY OF DETECTED COMPOUNDS IN SVE-4
JUNE 2018 - SEPTEMBER 2018

NOTES:

NR 140 enforcement standards (ES) and Preventative Action Limits (PALs) downloaded from Wisconsin State Legislature website: http://docs.legis.wisconsin.gov/code/admin_code/nr/100/140 on 5/2/2018.

Concentrations above an NR 140 PAL but less than the ES are italicized.

Concentrations above an NR 140 ES are bold.

NR 140 ES and PALs for VOCs taken from Table 1 of NR 140.

NR 140 ES and PALs for sulfate, iron, and manganese are Public Welfare Groundwater Quality Standards taken from Table 2 of NR 140.

There are methods for establishing groundwater standards for indicator parameters of alkalinity, conductivity, total organic carbon, and nitrogen; however, those relate to determining increases in their concentrations over background concentrations and do not apply to this situation.

Cond. (µS/cm) = Conductivity measured in micro-Siemens per centimeter.

CVOCs = Chlorinated volatile organic compounds.

DO (mg/L) = Dissolved oxygen measured in milligrams per liter.

J = Reported values fall below the Limit of Quantitation set by the lab.

NA = Constituent not analyzed.

NSV = No NR 140 Standard Value.

ORP (mV) = Oxidation Reduction Potential measured in millivolts.

Temp (^{o}C) = Temperature measured in degrees Celsius.

Total VOCs = Summation of detected VOCs.

WRR ENVIRONMENTAL SERVICES CO., INC.
EAU CLAIRE, WISCONSIN

TABLE 3

GROUNDWATER DNA ANALYSIS SUMMARY

Sample ID & Date	Dehalococcoides DHC	tceA R-Dase TCE	BAV1 VC R-Dase BVC	VC R-Dase VCR	Dehalobacter spp. DHBt
W-32					
05/09/18	<2.60E+00	<2.60E+00	<2.60E+00	<2.60E+00	<2.63E+01
09/06/18	<5.00E-01	<5.00E-01	<5.00E-01	<5.00E-01	<4.80E+00
W-33					
09/06/18	**6.75E+03**	**3.80E+00**	**8.49E+02**	**7.42E+02**	**1.93E+03**
W-34					
05/09/18	<5.30E+00	<5.30E+00	<5.30E+00	<5.30E+00	**8.15E+02**
09/06/18	**4.16E+01**	**2.56E+01**	**2.00E+00**	**3.70E+00**	**6.59E+05**
SVE-4					
09/06/18	**1.09E+02**	**6.74E+01**	**9.80E+00**	**1.27E+01**	**2.36E+04**

NOTES:
Results are in cells/mL.
Concentrations in bold signify detection by laboratory.
NA = Not analyzed.
VC = Vinyl Chloride
R-Dase = Reductase

APPENDIX A

BORING ABANDONMENT FORMS

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W — Format Code: ☐ DD ☐ DDM — Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town: EAU CLAIRE — Well ZIP Code: 54701

Subdivision Name: — Lot #:

Reason for Removal from Service: NO LONGER NEEDED — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: I.B-A

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner: EAU CLAIRE — State: WI — ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/05/2018

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type: ☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
25	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	25

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials: ☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	25	1.25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER INC		

Street or Route: 6240 HIGHWAY 12 WEST — Telephone Number: (763) 479-1797

City: MAPLE PLAIN — State: MN — ZIP Code: 55359

Signature of Person Doing Work: [signature] — Date Signed: 06/13/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015) Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-B

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
25	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	25

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☑ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	25	1.25 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENG. SER. INC.		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code
MAPLE PLAIN	MN	55359

Signature of Person Doing Work: [signature] Date Signed: 06/12/2019

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-1

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type: ☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
25	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	25

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials: ☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	25	1-25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code
MAPLE PLAIN	MN	55359

Signature of Person Doing Work: John Tahun

Date Signed: 04/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range	
SW	SE	3	26 N	9	☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-2

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/04/2018

If a Well Construction Report is available, please attach.

Construction Type:

☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type:

☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
25	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	25

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☑ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☑ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials

☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☒ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	25	1.25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code
MAPLE PLAIN	MN	55359

Signature of Person Doing Work: John [illegible]

Date Signed: 06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼ or Gov't Lot #	Section	Township	Range
SW ¼ SE	3	26 N	9 ☐ E ☒ W

Well Street Address: 5200 RYDER ROAD
Well City, Village or Town: EAU CLAIRE
Well ZIP Code: 54701
Subdivision Name:
Lot #:
Reason for Removal from Service: NO LONGER NEEDED
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: I.B-3
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD
City of Present Owner: EAU CLAIRE
State: WI
ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/05/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
26	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	26

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	24	1.25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route: 6240 HIGHWAY 12 WEST
Telephone Number: (763) 479-1797
City: MAPLE PLAIN
State: MN
ZIP Code: 55359
Signature of Person Doing Work: John Stevens
Date Signed: 06/12/2018

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE	_ _ _ _ _ _	

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼ SW ¼ SE | Section 3 | Township 26 N | Range 9 ☐ E ☒ W
or Gov't Lot #

Well Street Address: 5200 RYDER ROAD
Well City, Village or Town: EAU CLAIRE
Well ZIP Code: 54701
Subdivision Name:
Lot #:

Reason for Removal from Service: NO LONGER NEEDED
WI Unique Well # of Replacement Well: _ _ _ _ _ _

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: IB-4
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD
City of Present Owner: EAU CLAIRE | State: WI | ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): GEOPROBE BORING

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
25	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	25

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	25	1.25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: STEVENS DRILLING + ENV. SER. INC.
License #:
Date of Filling & Sealing or Verification (mm/dd/yyyy):
Street or Route: 6240 HIGHWAY 12 WEST
Telephone Number: (763) 479-1797
City: MAPLE PLAIN | State: MN | ZIP Code: 55359
Signature of Person Doing Work: John Zmo
Date Signed: 06/12/2018

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼ SW ¼ SE | Section 3 | Township 26 N | Range 9 ☐ E ☒ W
or Gov't Lot #

Well Street Address: 5200 RYDER ROAD
Well City, Village or Town: EAU CLAIRE
Well ZIP Code: 54701
Subdivision Name:
Lot #:

Reason for Removal from Service: NO LONGER NEEDED
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: IB-5
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD
City of Present Owner: EAU CLAIRE | State: WI | ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/05/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): GEOPROBE BORING

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
26	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	26

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	26	1.25 Bags	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route: 6240 HIGHWAY 12 WEST
Telephone Number: (763) 479-1797
City: MAPLE PLAIN | State: MN | ZIP Code: 55359
Signature of Person Doing Work: John Tollefson
Date Signed: 06/12/2018

DNR Use Only
Date Received | Noted By | Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-6

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	22	1 Bag	

Bentonite Chips

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359		06/12/2018

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Waste Management ☐ Watershed/Wastewater ☐ Other: ☒ Remediation/Redevelopment

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼ or Gov't Lot #	Section	Township	Range
SW ¼ SE	3	26 N	9 ☐ E ☒ W

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town: EAU CLAIRE — Well ZIP Code: 54701

Subdivision Name — Lot #

Reason for Removal from Service: NO LONGER NEEDED — WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: I.B-7

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner: EAU CLAIRE — State: WI — ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type: ☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials: ☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	22	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359	John Rink	06/12/2018

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE	_ _ _ _ _ _	

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	_ _ _ _ _ _

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-8

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	22	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359	John Fellner	06/12/2018

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Waste Management ☐ Watershed/Wastewater ☐ Other: ☒ Remediation/Redevelopment

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-9

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type:

☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type:

☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials

☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	22	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359		06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: I.B-10

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	22	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359	Jon Penn	06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼ or Gov't Lot #	Section	Township	Range
SW ¼ SE	3	26 N	9 ☐ E ☒ W

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-11

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/07/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
22	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	22

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	22	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359		06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE	_ _ _ _ _ _	

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼	¼	Section	Township	Range
SW	SE	3	26 N	9 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	_ _ _ _ _ _

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: IB-12
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	20

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code
MAPLE PLAIN	MN	55359

Signature of Person Doing Work: John Talbot
Date Signed: 06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau: ☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions)	Format Code	Method Code
44° 45' 27.67" N	☐ DD	☐ GPS008
91° 27' 28.91" W	☐ DDM	☐ SCR002 ☒ OTH001

¼ / ¼ or Gov't Lot #	Section	Township	Range
SW ¼ SE	3	26 N	9 ☐ E ☒ W

Well Street Address: 5200 RYDER ROAD

Well City, Village or Town	Well ZIP Code
EAU CLAIRE	54701

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
NO LONGER NEEDED	

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES

Facility ID (FID or PWS): 618026530

License/Permit/Monitoring #: IB-13

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME AS ABOVE

Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): GEOPROBE BORING

Formation Type: ☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	1.5

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
1.5	20

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☒ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials: ☐ Neat Cement Grout ☐ Concrete ☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☒ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359	John Peterson	06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE		

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼ or Gov't Lot #	Section	Township	Range
SW ¼ SE	3	26 N	9 ☐ E ☒ W

Well Street Address: 5200 RYDER ROAD
Well City, Village or Town: EAU CLAIRE
Well ZIP Code: 54701
Subdivision Name:
Lot #:
Reason for Removal from Service: NO LONGER NEEDED
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: I.B-14
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD

City of Present Owner	State	ZIP Code
EAU CLAIRE	WI	54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	20

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route	Telephone Number
6240 HIGHWAY 12 WEST	(763) 479-1797

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
MAPLE PLAIN	MN	55359	John Stevens	06/12/2018

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
EAU CLAIRE	_ _ _ _ _ _ _	

Latitude / Longitude (see instructions): 44° 45' 27.67" N, 91° 27' 28.91" W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☒ OTH001

¼ / ¼ SW ¼ SE | Section 3 | Township 26 N | Range 9 ☐ E ☒ W
or Gov't Lot #

Well Street Address: 5200 RYDER ROAD
Well City, Village or Town: EAU CLAIRE
Well ZIP Code: 54701
Subdivision Name:
Lot #:

Reason for Removal from Service: NO LONGER NEEDED
WI Unique Well # of Replacement Well: _ _ _ _ _ _ _

2. Facility / Owner Information

Facility Name: WRR ENVIRONMENTAL SERVICES
Facility ID (FID or PWS): 618026530
License/Permit/Monitoring #: IB-15
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME AS ABOVE
Mailing Address of Present Owner: 5200 RYDER ROAD
City of Present Owner: EAU CLAIRE | State: WI | ZIP Code: 54701

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 06/06/2018
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): GEOPROBE BORING

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	1.5
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
1.5	20

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet): 14.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
STEVENS DRILLING + ENV. SER. INC.		

Street or Route: 6240 HIGHWAY 12 WEST
Telephone Number: (763) 479-1797
City: MAPLE PLAIN | State: MN | ZIP Code: 55359
Signature of Person Doing Work: John Johnson
Date Signed: 06/12/2018

DNR Use Only
Date Received | Noted By
Comments

APPENDIX B

LABORATORY REPORTS FOR GROUNDWATER SAMPLES MAY THROUGH SEPTEMBER 2018

10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Anthony Miller
Gannett Fleming
8025 Excelsior Drive
Madison, WI 53717

Phone: 608.836.1500

Fax: 608.831.3337

Identifier: 049PE **Date Rec:** 05/11/2018 **Report Date:** 05/15/2018

Client Project #: 55929.005 **Client Project Name:** WRR

Purchase Order #: 55929.005

Analysis Requested: CENSUS

The Analytical Results & QA/QC Data included with this report were reviewed and approved by AWM on 05/21/18.

Reviewed By:

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Gannett Fleming**
Project: WRR

MI Project Number: **049PE**
Date Received: 05/11/2018

Sample Information

Client Sample ID:		**W-32**	**W-34**
Sample Date:		05/09/2018	05/09/2018
Units:		cells/mL	cells/mL
Analyst/Reviewer:		JS	JS

Dechlorinating Bacteria

Dehalococcoides	*DHC*	<2.60E+00	<5.30E+00
tceA Reductase	TCE	<2.60E+00	<5.30E+00
BAV1 Vinyl Chloride Reductase	BVC	<2.60E+00	<5.30E+00
Vinyl Chloride Reductase	VCR	<2.60E+00	<5.30E+00
Dehalobacter spp.	*DHBt*	<2.63E+01	**8.15E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **5/11/2018**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	05/11/2018	05/15/2018	1 °C	101%	non-detect	non-detect
DHBt	05/11/2018	05/15/2018	1 °C	106%	non-detect	non-detect
BVC	05/11/2018	05/15/2018	1 °C	105%	non-detect	non-detect
TCE	05/11/2018	05/15/2018	1 °C	104%	non-detect	non-detect
VCR	05/11/2018	05/15/2018	1 °C	102%	non-detect	non-detect

REPORT TO:

Name: Anthony Miller
Company: Gannett Fleming
Address: 8025 Excelsior Dr
Madison, WI 53717

email: awmiller@gfnet.com
Phone: 608-836-1500 ext 6716
Fax: 608-831-3337

Project Manager: Anthony Miller
Project Name: WRR
Project No.: 55929.005

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name:
Company:
Address: Same as Report

email:
Phone:
Fax:

Purchase Order No. 55929.005
Subcontract No.
MI Quote No. Q20180425.0006

microbialinsights
10515 Research Dr
Knoxville, TN 37932
865-573-8188
www.microbe.com

Please Check One:
☐ More samples to follow
☒ No Additional Samples

Report Type: ☑ Standard (default) ☐ Microbial Insights Level III raw data (15% surcharge) ☐ Microbial Insights Level IV (25% surcharge) ☐ Comprehensive Interpretive (15%) ☐ Historical Interpretive (35%)

EDD type: ☑ Microbial Insights Standard (default) ☐ All other available EDDs (5% surcharge) Specify EDD Type:

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses				CENSUS: Please select the target organism/gene																							
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococcoides)	DHC Functional genes (bvc, tce, vcr)	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfitobacterium)	EBAC (Total)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Dentrifiers-nirS and nirK)	AMO (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Napthalene-aerobic)	BSSA (Toluene/Xylene-Anaerobic)	add. qPCR:	RNA (Expression Option)*	Other:	Other:	Other:
049PE1	W-32	5/9/18	15:20	GW	1					✓	✓	✓																					
2	W-34	"	15:00	GW	1					✓	✓	✓																					

Relinquished by: [signature] Date 5/9/18 Received by: [signature] Date 5/11/18

It is vital that chain of custody is filled out correctly & that all relative information is provided.
Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable.

* additional cost and sample preservation are associated with RNA samples.

**Saturday delivery: See sampling protocol for alternate shipping address.

The analytical results and QA/QC data included with this report were reviewed by AWM on 06/23/18.

23-Jun-2018

Anthony Miller
Gannett Fleming, Inc.
8025 Excelsior Dr.
Madison, WI 53717-1900

Re: **WRR (55929.005)**

Work Order: **1805671**

Dear Anthony,

Revision: **2**

ALS Environmental received 27 samples on 10-May-2018 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 114.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Tom Beamish

Tom Beamish
Senior Project Manager

Report of Laboratory Analysis

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: **1805671**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1805671-01	W-3A	Water		05/08/18 10:05	05/10/18 09:30	☐
1805671-02	W-3B	Water		05/08/18 10:10	05/10/18 09:30	☐
1805671-03	W-18	Water		05/08/18 15:50	05/10/18 09:30	☐
1805671-04	W-18A	Water		05/08/18 15:25	05/10/18 09:30	☐
1805671-05	W-19R	Water		05/08/18 16:30	05/10/18 09:30	☐
1805671-06	W-19R Dup	Water		05/08/18 16:30	05/10/18 09:30	☐
1805671-07	W-20	Water		05/08/18 18:00	05/10/18 09:30	☐
1805671-08	W-27	Water		05/08/18 13:10	05/10/18 09:30	☐
1805671-09	W-28	Water		05/08/18 17:15	05/10/18 09:30	☐
1805671-10	MW-111	Water		05/08/18 10:45	05/10/18 09:30	☐
1805671-11	MW-111A	Water		05/08/18 11:00	05/10/18 09:30	☐
1805671-12	MW-111B	Water		05/08/18 11:15	05/10/18 09:30	☐
1805671-13	MW-112	Water		05/08/18 11:40	05/10/18 09:30	☐
1805671-14	MW-112A	Water		05/08/18 11:30	05/10/18 09:30	☐
1805671-15	MW-112B	Water		05/08/18 11:55	05/10/18 09:30	☐
1805671-16	MW-114	Water		05/08/18 14:55	05/10/18 09:30	☐
1805671-17	MW-114A	Water		05/08/18 15:05	05/10/18 09:30	☐
1805671-18	MW-114B	Water		05/08/18 15:00	05/10/18 09:30	☐
1805671-19	MW-115	Water		05/08/18 13:35	05/10/18 09:30	☐
1805671-20	MW-115A	Water		05/08/18 13:50	05/10/18 09:30	☐
1805671-21	MW-115B	Water		05/08/18 14:25	05/10/18 09:30	☐
1805671-22	Field Blank	Water		05/08/18 09:50	05/10/18 09:30	☐
1805671-23	Seep 2N	Water		05/08/18 10:50	05/10/18 09:30	☐
1805671-24	Seep 7N	Water		05/08/18 10:55	05/10/18 09:30	☐
1805671-25	Seep 8N	Water		05/08/18 11:00	05/10/18 09:30	☐
1805671-26	Seep 9N	Water		05/08/18 11:05	05/10/18 09:30	☐
1805671-27	Trip Blank	Water		05/08/18	05/10/18 09:30	☐

Revision: 2

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
WorkOrder: **1805671**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: 1805671

Case Narrative

Samples for the above noted Work Order were received on 05/10/18. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, sample condition, preservation, and temperature compliance.
In order to ensure compliance with NR 149 criteria, please note the following report format:
(1) The Limit of Detection (LOD) is reported as the MDL (Method Detection Limit)
(2) The Limit of Quantitation (LOQ) is reported as the PQL (Practical Quantitation Limit)
(3) All reported concentrations, including those for the LOD and LOQ, are adjusted for any required dilutions
(4) All reported concentrations, including those for the LOD and LOQ, are adjusted for moisture content when samples are reported on a dry weight basis.

Samples were analyzed according to the analytical methodology previously documented in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Detail as to the associated samples can be found at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, acronyms, and units utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R236043a, Method VOC_8260_W, Sample VLCSW1-180516: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Bromomethane.

Batch R236043a, Method VOC_8260_W, Sample 1805671-20A MS and -20A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding results in the parent sample may be biased high for 1,1-Dichloroethane and Bromomethane.

Batch R236211a, Method VOC_8260_W, Sample 1805671-19A MS and -19A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for Bromomethane.

No other deviations or anomalies were noted.

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3A
Collection Date: 05/08/18 10:05 AM

Work Order: 1805671
Lab ID: 1805671-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 20:58
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 20:58
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 20:58
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 20:58
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 20:58
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 20:58
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 20:58
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 20:58
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 20:58
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:58
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 20:58
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 20:58
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 20:58
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 20:58
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 20:58
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 20:58
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 20:58
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 20:58
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 20:58
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:58
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 20:58
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 20:58
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 20:58
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 20:58
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 20:58
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 20:58
Acetone	**5.0**		**0.92**	**3.1**	**µg/L**	1	05/16/18 20:58
Benzene	U		0.30	1.0	µg/L	1	05/16/18 20:58
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 20:58
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 20:58
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 20:58
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 20:58
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 20:58
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 20:58
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 20:58
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 20:58
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 20:58
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 20:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3A
Collection Date: 05/08/18 10:05 AM

Work Order: 1805671
Lab ID: 1805671-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 20:58
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 20:58
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 20:58
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 20:58
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 20:58
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 20:58
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 20:58
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 20:58
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 20:58
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 20:58
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 20:58
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 20:58
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 20:58
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 20:58
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 20:58
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 20:58
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 20:58
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 20:58
Styrene	U		0.24	0.79	µg/L	1	05/16/18 20:58
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 20:58
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 20:58
Toluene	**1.5**		**0.37**	**1.2**	**µg/L**	1	05/16/18 20:58
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 20:58
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 20:58
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 20:58
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 20:58
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 20:58
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 20:58
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 20:58
Surr: 4-Bromofluorobenzene	*98.2*			*80-110*	*%REC*	1	05/16/18 20:58
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1	05/16/18 20:58
Surr: Toluene-d8	*98.4*			*85-110*	*%REC*	1	05/16/18 20:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3B
Collection Date: 05/08/18 10:10 AM

Work Order: 1805671
Lab ID: 1805671-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 21:14
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 21:14
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 21:14
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 21:14
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 21:14
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 21:14
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 21:14
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 21:14
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 21:14
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:14
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 21:14
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 21:14
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 21:14
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 21:14
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 21:14
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 21:14
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 21:14
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 21:14
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 21:14
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:14
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 21:14
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 21:14
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 21:14
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 21:14
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 21:14
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 21:14
Acetone	**1.9**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 21:14
Benzene	U		0.30	1.0	µg/L	1	05/16/18 21:14
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 21:14
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 21:14
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 21:14
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 21:14
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 21:14
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 21:14
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 21:14
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 21:14
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 21:14
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 21:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3B
Collection Date: 05/08/18 10:10 AM

Work Order: 1805671
Lab ID: 1805671-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 21:14
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 21:14
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 21:14
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 21:14
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 21:14
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 21:14
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 21:14
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 21:14
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 21:14
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 21:14
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 21:14
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 21:14
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 21:14
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 21:14
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 21:14
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 21:14
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 21:14
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 21:14
Styrene	U		0.24	0.79	µg/L	1	05/16/18 21:14
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 21:14
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 21:14
Toluene	**0.39**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 21:14
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 21:14
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 21:14
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 21:14
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 21:14
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 21:14
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 21:14
Surr: 1,2-Dichloroethane-d4	*97.0*			*75-120*	*%REC*	1	05/16/18 21:14
Surr: 4-Bromofluorobenzene	*95.0*			*80-110*	*%REC*	1	05/16/18 21:14
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 21:14
Surr: Toluene-d8	*97.6*			*85-110*	*%REC*	1	05/16/18 21:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-18
Collection Date: 05/08/18 03:50 PM

Work Order: 1805671
Lab ID: 1805671-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 21:30
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 21:30
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 21:30
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 21:30
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 21:30
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 21:30
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 21:30
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 21:30
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 21:30
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:30
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 21:30
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 21:30
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 21:30
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 21:30
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 21:30
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 21:30
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 21:30
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 21:30
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 21:30
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:30
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 21:30
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 21:30
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 21:30
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 21:30
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 21:30
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 21:30
Acetone	U		0.92	3.1	µg/L	1	05/16/18 21:30
Benzene	U		0.30	1.0	µg/L	1	05/16/18 21:30
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 21:30
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 21:30
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 21:30
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 21:30
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 21:30
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 21:30
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 21:30
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 21:30
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 21:30
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 21:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-18
Collection Date: 05/08/18 03:50 PM

Work Order: 1805671
Lab ID: 1805671-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 21:30
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 21:30
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 21:30
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 21:30
Dichlorodifluoromethane	**9.9**		**0.13**	**0.44**	**µg/L**	1	05/16/18 21:30
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 21:30
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 21:30
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 21:30
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 21:30
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 21:30
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 21:30
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 21:30
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 21:30
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 21:30
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 21:30
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 21:30
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 21:30
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 21:30
Styrene	U		0.24	0.79	µg/L	1	05/16/18 21:30
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 21:30
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 21:30
Toluene	U		0.37	1.2	µg/L	1	05/16/18 21:30
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 21:30
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 21:30
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 21:30
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 21:30
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 21:30
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 21:30
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 21:30
Surr: 4-Bromofluorobenzene	*96.8*			*80-110*	*%REC*	1	05/16/18 21:30
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1	05/16/18 21:30
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/16/18 21:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-18A
Collection Date: 05/08/18 03:25 PM

Work Order: 1805671
Lab ID: 1805671-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 21:46
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 21:46
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 21:46
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 21:46
1,1-Dichloroethane	**7.4**		**0.31**	**1.0**	**µg/L**	1	05/16/18 21:46
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 21:46
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 21:46
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 21:46
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 21:46
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:46
1,2,4-Trimethylbenzene	**16**		**0.37**	**1.2**	**µg/L**	1	05/16/18 21:46
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 21:46
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 21:46
1,2-Dichlorobenzene	**0.66**	J	**0.22**	**0.73**	**µg/L**	1	05/16/18 21:46
1,2-Dichloroethane	**1.2**		**0.17**	**0.55**	**µg/L**	1	05/16/18 21:46
1,2-Dichloropropane	**0.61**	J	**0.25**	**0.83**	**µg/L**	1	05/16/18 21:46
1,3,5-Trimethylbenzene	**2.0**		**0.29**	**0.95**	**µg/L**	1	05/16/18 21:46
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 21:46
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 21:46
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:46
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 21:46
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 21:46
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 21:46
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 21:46
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 21:46
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 21:46
Acetone	U		0.92	3.1	µg/L	1	05/16/18 21:46
Benzene	**3.0**		**0.30**	**1.0**	**µg/L**	1	05/16/18 21:46
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 21:46
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 21:46
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 21:46
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 21:46
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 21:46
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 21:46
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 21:46
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 21:46
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 21:46
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 21:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-18A
Collection Date: 05/08/18 03:25 PM

Work Order: 1805671
Lab ID: 1805671-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**1.0**		**0.25**	**0.85**	**µg/L**	1	05/16/18 21:46
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 21:46
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 21:46
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 21:46
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 21:46
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 21:46
Ethylbenzene	**97**		**2.0**	**6.7**	**µg/L**	5	05/20/18 23:32
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 21:46
Isopropylbenzene	**2.2**		**0.31**	**1.0**	**µg/L**	1	05/16/18 21:46
m,p-Xylene	**170**		**4.9**	**16**	**µg/L**	5	05/20/18 23:32
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 21:46
Methylene chloride	**1.6**	J	**0.56**	**1.8**	**µg/L**	1	05/16/18 21:46
Naphthalene	**0.91**		**0.18**	**0.59**	**µg/L**	1	05/16/18 21:46
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 21:46
n-Propylbenzene	**1.7**		**0.24**	**0.81**	**µg/L**	1	05/16/18 21:46
o-Xylene	**48**		**0.35**	**1.2**	**µg/L**	1	05/16/18 21:46
p-Isopropyltoluene	**0.31**	J	**0.14**	**0.48**	**µg/L**	1	05/16/18 21:46
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 21:46
Styrene	U		0.24	0.79	µg/L	1	05/16/18 21:46
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 21:46
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 21:46
Toluene	**6.3**		**0.37**	**1.2**	**µg/L**	1	05/16/18 21:46
trans-1,2-Dichloroethene	**1.2**		**0.28**	**0.93**	**µg/L**	1	05/16/18 21:46
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 21:46
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 21:46
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 21:46
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 21:46
Xylenes, Total	**210**		**6.6**	**22**	**µg/L**	5	05/20/18 23:32
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	05/16/18 21:46
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	5	05/20/18 23:32
Surr: 4-Bromofluorobenzene	*96.8*			*80-110*	*%REC*	1	05/16/18 21:46
Surr: 4-Bromofluorobenzene	*93.6*			*80-110*	*%REC*	5	05/20/18 23:32
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	05/16/18 21:46
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	5	05/20/18 23:32
Surr: Toluene-d8	*99.4*			*85-110*	*%REC*	1	05/16/18 21:46
Surr: Toluene-d8	*98.2*			*85-110*	*%REC*	5	05/20/18 23:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-19R
Collection Date: 05/08/18 04:30 PM

Work Order: 1805671
Lab ID: 1805671-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 22:02
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 22:02
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 22:02
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 22:02
1,1-Dichloroethane	**24**		**0.31**	**1.0**	**µg/L**	1	05/16/18 22:02
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 22:02
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 22:02
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 22:02
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 22:02
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 22:02
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 22:02
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 22:02
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 22:02
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 22:02
1,2-Dichloroethane	**60**		**0.17**	**0.55**	**µg/L**	1	05/16/18 22:02
1,2-Dichloropropane	**0.88**		**0.25**	**0.83**	**µg/L**	1	05/16/18 22:02
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 22:02
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 22:02
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 22:02
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 22:02
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 22:02
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 22:02
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 22:02
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 22:02
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 22:02
4-Methyl-2-pentanone	**1,100**		**5.7**	**20**	**µg/L**	50	05/18/18 21:55
Acetone	U		0.92	3.1	µg/L	1	05/16/18 22:02
Benzene	**90**		**0.30**	**1.0**	**µg/L**	1	05/16/18 22:02
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 22:02
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 22:02
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 22:02
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 22:02
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 22:02
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 22:02
Chlorobenzene	**5.2**		**0.27**	**0.90**	**µg/L**	1	05/16/18 22:02
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 22:02
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 22:02
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 22:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-19R
Collection Date: 05/08/18 04:30 PM

Work Order: 1805671
Lab ID: 1805671-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**0.78**	J	**0.25**	**0.85**	**µg/L**	1	05/16/18 22:02
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 22:02
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 22:02
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 22:02
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 22:02
Diisopropyl ether	**28**		**0.13**	**0.43**	**µg/L**	1	05/16/18 22:02
Ethylbenzene	**690**		**20**	**67**	**µg/L**	50	05/18/18 21:55
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 22:02
Isopropylbenzene	**1.3**		**0.31**	**1.0**	**µg/L**	1	05/16/18 22:02
m,p-Xylene	**1,000**		**49**	**160**	**µg/L**	50	05/18/18 21:55
Methyl tert-butyl ether	**2.5**		**0.12**	**0.40**	**µg/L**	1	05/16/18 22:02
Methylene chloride	**1.9**		**0.56**	**1.8**	**µg/L**	1	05/16/18 22:02
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 22:02
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 22:02
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 22:02
o-Xylene	**600**		**18**	**59**	**µg/L**	50	05/18/18 21:55
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 22:02
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 22:02
Styrene	U		0.24	0.79	µg/L	1	05/16/18 22:02
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 22:02
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 22:02
Toluene	**8,500**		**180**	**610**	**µg/L**	500	05/20/18 23:53
trans-1,2-Dichloroethene	**3.1**		**0.28**	**0.93**	**µg/L**	1	05/16/18 22:02
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 22:02
Trichloroethene	**0.68**	J	**0.30**	**0.99**	**µg/L**	1	05/16/18 22:02
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 22:02
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 22:02
Xylenes, Total	**1,600**		**66**	**220**	**µg/L**	50	05/18/18 21:55
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	05/16/18 22:02
Surr: 1,2-Dichloroethane-d4	*95.2*			*75-120*	*%REC*	50	05/18/18 21:55
Surr: 1,2-Dichloroethane-d4	*98.8*			*75-120*	*%REC*	500	05/20/18 23:53
Surr: 4-Bromofluorobenzene	*99.2*			*80-110*	*%REC*	1	05/16/18 22:02
Surr: 4-Bromofluorobenzene	*96.3*			*80-110*	*%REC*	50	05/18/18 21:55
Surr: 4-Bromofluorobenzene	*98.4*			*80-110*	*%REC*	500	05/20/18 23:53
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	1	05/16/18 22:02
Surr: Dibromofluoromethane	*99.7*			*85-115*	*%REC*	50	05/18/18 21:55
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	500	05/20/18 23:53
Surr: Toluene-d8	*93.8*			*85-110*	*%REC*	1	05/16/18 22:02
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	50	05/18/18 21:55
Surr: Toluene-d8	*96.4*			*85-110*	*%REC*	500	05/20/18 23:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-19R Dup
Collection Date: 05/08/18 04:30 PM

Work Order: 1805671
Lab ID: 1805671-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 22:18
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 22:18
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 22:18
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 22:18
1,1-Dichloroethane	**23**		**0.31**	**1.0**	**µg/L**	1	05/16/18 22:18
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 22:18
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 22:18
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 22:18
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 22:18
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 22:18
1,2,4-Trimethylbenzene	**1.1**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 22:18
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 22:18
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 22:18
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 22:18
1,2-Dichloroethane	**57**		**0.17**	**0.55**	**µg/L**	1	05/16/18 22:18
1,2-Dichloropropane	**0.58**	J	**0.25**	**0.83**	**µg/L**	1	05/16/18 22:18
1,3,5-Trimethylbenzene	**1.1**		**0.29**	**0.95**	**µg/L**	1	05/16/18 22:18
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 22:18
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 22:18
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 22:18
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 22:18
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 22:18
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 22:18
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 22:18
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 22:18
4-Methyl-2-pentanone	**1,200**		**5.7**	**20**	**µg/L**	50	05/18/18 22:11
Acetone	**1.5**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 22:18
Benzene	**85**		**0.30**	**1.0**	**µg/L**	1	05/16/18 22:18
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 22:18
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 22:18
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 22:18
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 22:18
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 22:18
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 22:18
Chlorobenzene	**5.2**		**0.27**	**0.90**	**µg/L**	1	05/16/18 22:18
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 22:18
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 22:18
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 22:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-19R Dup
Collection Date: 05/08/18 04:30 PM

Work Order: 1805671
Lab ID: 1805671-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**0.77**	J	**0.25**	**0.85**	**µg/L**	1	05/16/18 22:18
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 22:18
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 22:18
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 22:18
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 22:18
Diisopropyl ether	**26**		**0.13**	**0.43**	**µg/L**	1	05/16/18 22:18
Ethylbenzene	**690**		**20**	**67**	**µg/L**	50	05/18/18 22:11
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 22:18
Isopropylbenzene	**1.3**		**0.31**	**1.0**	**µg/L**	1	05/16/18 22:18
m,p-Xylene	**1,000**		**49**	**160**	**µg/L**	50	05/18/18 22:11
Methyl tert-butyl ether	**2.4**		**0.12**	**0.40**	**µg/L**	1	05/16/18 22:18
Methylene chloride	**1.9**		**0.56**	**1.8**	**µg/L**	1	05/16/18 22:18
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 22:18
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 22:18
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 22:18
o-Xylene	**610**		**18**	**59**	**µg/L**	50	05/18/18 22:11
p-Isopropyltoluene	**0.29**	J	**0.14**	**0.48**	**µg/L**	1	05/16/18 22:18
sec-Butylbenzene	**0.89**	J	**0.29**	**0.98**	**µg/L**	1	05/16/18 22:18
Styrene	**16**		**0.24**	**0.79**	**µg/L**	1	05/16/18 22:18
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 22:18
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 22:18
Toluene	**1,800**		**37**	**120**	**µg/L**	100	05/21/18 12:14
trans-1,2-Dichloroethene	**2.9**		**0.28**	**0.93**	**µg/L**	1	05/16/18 22:18
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 22:18
Trichloroethene	**0.60**	J	**0.30**	**0.99**	**µg/L**	1	05/16/18 22:18
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 22:18
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 22:18
Xylenes, Total	**1,600**		**66**	**220**	**µg/L**	50	05/18/18 22:11
Surr: 1,2-Dichloroethane-d4	*98.8*			*75-120*	*%REC*	1	05/16/18 22:18
Surr: 1,2-Dichloroethane-d4	*99.2*			*75-120*	*%REC*	50	05/18/18 22:11
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	100	05/21/18 12:14
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/16/18 22:18
Surr: 4-Bromofluorobenzene	*96.3*			*80-110*	*%REC*	50	05/18/18 22:11
Surr: 4-Bromofluorobenzene	*91.8*			*80-110*	*%REC*	100	05/21/18 12:14
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 22:18
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	50	05/18/18 22:11
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	100	05/21/18 12:14
Surr: Toluene-d8	*97.4*			*85-110*	*%REC*	1	05/16/18 22:18
Surr: Toluene-d8	*97.0*			*85-110*	*%REC*	50	05/18/18 22:11
Surr: Toluene-d8	*94.9*			*85-110*	*%REC*	100	05/21/18 12:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-20
Collection Date: 05/08/18 06:00 PM

Work Order: 1805671
Lab ID: 1805671-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 22:27
1,1,1-Trichloroethane	**3.2**		**0.36**	**1.2**	**µg/L**	1	05/18/18 22:27
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 22:27
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 22:27
1,1-Dichloroethane	**22**		**0.31**	**1.0**	**µg/L**	1	05/18/18 22:27
1,1-Dichloroethene	**0.84**	J	**0.28**	**0.92**	**µg/L**	1	05/18/18 22:27
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 22:27
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 22:27
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 22:27
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:27
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 22:27
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 22:27
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 22:27
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 22:27
1,2-Dichloroethane	**1.9**		**0.17**	**0.55**	**µg/L**	1	05/18/18 22:27
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 22:27
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 22:27
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 22:27
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 22:27
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:27
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 22:27
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 22:27
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 22:27
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 22:27
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 22:27
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 22:27
Acetone	U		0.92	3.1	µg/L	1	05/18/18 22:27
Benzene	U		0.30	1.0	µg/L	1	05/18/18 22:27
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 22:27
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 22:27
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 22:27
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 22:27
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 22:27
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 22:27
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 22:27
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 22:27
Chloroform	**0.47**	J	**0.26**	**0.86**	**µg/L**	1	05/18/18 22:27
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 22:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-20
Collection Date: 05/08/18 06:00 PM

Work Order: 1805671
Lab ID: 1805671-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**23**		**0.25**	**0.85**	**µg/L**	1	05/18/18 22:27
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 22:27
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 22:27
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 22:27
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 22:27
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 22:27
Ethylbenzene	**8.4**		**0.40**	**1.3**	**µg/L**	1	05/18/18 22:27
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 22:27
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 22:27
m,p-Xylene	**3.9**		**0.98**	**3.3**	**µg/L**	1	05/18/18 22:27
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 22:27
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 22:27
Naphthalene	**0.77**		**0.18**	**0.59**	**µg/L**	1	05/18/18 22:27
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 22:27
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 22:27
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 22:27
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 22:27
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 22:27
Styrene	U		0.24	0.79	µg/L	1	05/18/18 22:27
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 22:27
Tetrachloroethene	**6.7**		**0.27**	**0.91**	**µg/L**	1	05/18/18 22:27
Toluene	**0.83**	J	**0.37**	**1.2**	**µg/L**	1	05/18/18 22:27
trans-1,2-Dichloroethene	**3.5**		**0.28**	**0.93**	**µg/L**	1	05/18/18 22:27
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 22:27
Trichloroethene	**12**		**0.30**	**0.99**	**µg/L**	1	05/18/18 22:27
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 22:27
Vinyl chloride	**3.3**		**0.20**	**0.68**	**µg/L**	1	05/18/18 22:27
Xylenes, Total	**3.9**	J	**1.3**	**4.4**	**µg/L**	1	05/18/18 22:27
Surr: 1,2-Dichloroethane-d4	*97.0*			*75-120*	*%REC*	1	05/18/18 22:27
Surr: 4-Bromofluorobenzene	*97.2*			*80-110*	*%REC*	1	05/18/18 22:27
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 22:27
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	1	05/18/18 22:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-27
Collection Date: 05/08/18 01:10 PM

Work Order: 1805671
Lab ID: 1805671-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 22:43
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 22:43
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 22:43
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 22:43
1,1-Dichloroethane	**3.1**		**0.31**	**1.0**	**µg/L**	1	05/18/18 22:43
1,1-Dichloroethene	**0.55**	J	**0.28**	**0.92**	**µg/L**	1	05/18/18 22:43
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 22:43
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 22:43
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 22:43
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:43
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 22:43
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 22:43
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 22:43
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 22:43
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 22:43
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 22:43
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 22:43
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 22:43
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 22:43
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:43
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 22:43
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 22:43
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 22:43
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 22:43
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 22:43
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 22:43
Acetone	U		0.92	3.1	µg/L	1	05/18/18 22:43
Benzene	U		0.30	1.0	µg/L	1	05/18/18 22:43
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 22:43
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 22:43
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 22:43
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 22:43
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 22:43
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 22:43
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 22:43
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 22:43
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 22:43
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 22:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-27
Collection Date: 05/08/18 01:10 PM

Work Order: 1805671
Lab ID: 1805671-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**3.7**		**0.25**	**0.85**	**µg/L**	1	05/18/18 22:43
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 22:43
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 22:43
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 22:43
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 22:43
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 22:43
Ethylbenzene	**0.67**	J	**0.40**	**1.3**	**µg/L**	1	05/18/18 22:43
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 22:43
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 22:43
m,p-Xylene	**1.4**	J	**0.98**	**3.3**	**µg/L**	1	05/18/18 22:43
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 22:43
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 22:43
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 22:43
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 22:43
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 22:43
o-Xylene	**0.45**	J	**0.35**	**1.2**	**µg/L**	1	05/18/18 22:43
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 22:43
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 22:43
Styrene	U		0.24	0.79	µg/L	1	05/18/18 22:43
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 22:43
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 22:43
Toluene	**2.3**		**0.37**	**1.2**	**µg/L**	1	05/18/18 22:43
trans-1,2-Dichloroethene	**0.84**	J	**0.28**	**0.93**	**µg/L**	1	05/18/18 22:43
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 22:43
Trichloroethene	**3.4**		**0.30**	**0.99**	**µg/L**	1	05/18/18 22:43
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 22:43
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 22:43
Xylenes, Total	**1.8**	J	**1.3**	**4.4**	**µg/L**	1	05/18/18 22:43
Surr: 1,2-Dichloroethane-d4	*98.4*			*75-120*	*%REC*	1	05/18/18 22:43
Surr: 4-Bromofluorobenzene	*92.2*			*80-110*	*%REC*	1	05/18/18 22:43
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	05/18/18 22:43
Surr: Toluene-d8	*95.2*			*85-110*	*%REC*	1	05/18/18 22:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-28
Collection Date: 05/08/18 05:15 PM

Work Order: 1805671
Lab ID: 1805671-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 22:59
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 22:59
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 22:59
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 22:59
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 22:59
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 22:59
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 22:59
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 22:59
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 22:59
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:59
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 22:59
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 22:59
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 22:59
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 22:59
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 22:59
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 22:59
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 22:59
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 22:59
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 22:59
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 22:59
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 22:59
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 22:59
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 22:59
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 22:59
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 22:59
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 22:59
Acetone	U		0.92	3.1	µg/L	1	05/18/18 22:59
Benzene	U		0.30	1.0	µg/L	1	05/18/18 22:59
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 22:59
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 22:59
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 22:59
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 22:59
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 22:59
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 22:59
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 22:59
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 22:59
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 22:59
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 22:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-28
Collection Date: 05/08/18 05:15 PM

Work Order: 1805671
Lab ID: 1805671-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 22:59
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 22:59
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 22:59
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 22:59
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 22:59
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 22:59
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 22:59
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 22:59
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 22:59
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 22:59
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 22:59
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 22:59
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 22:59
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 22:59
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 22:59
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 22:59
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 22:59
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 22:59
Styrene	U		0.24	0.79	µg/L	1	05/18/18 22:59
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 22:59
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 22:59
Toluene	U		0.37	1.2	µg/L	1	05/18/18 22:59
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 22:59
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 22:59
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 22:59
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 22:59
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 22:59
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 22:59
Surr: 1,2-Dichloroethane-d4	*98.0*			*75-120*	*%REC*	1	05/18/18 22:59
Surr: 4-Bromofluorobenzene	*94.1*			*80-110*	*%REC*	1	05/18/18 22:59
Surr: Dibromofluoromethane	*97.8*			*85-115*	*%REC*	1	05/18/18 22:59
Surr: Toluene-d8	*97.4*			*85-110*	*%REC*	1	05/18/18 22:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111
Collection Date: 05/08/18 10:45 AM

Work Order: 1805671
Lab ID: 1805671-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 23:15
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 23:15
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 23:15
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 23:15
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 23:15
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 23:15
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 23:15
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 23:15
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 23:15
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 23:15
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 23:15
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 23:15
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 23:15
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 23:15
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 23:15
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 23:15
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 23:15
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 23:15
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 23:15
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 23:15
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 23:15
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 23:15
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 23:15
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 23:15
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 23:15
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 23:15
Acetone	**2.9**	J	**0.92**	**3.1**	**µg/L**	1	05/18/18 23:15
Benzene	U		0.30	1.0	µg/L	1	05/18/18 23:15
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 23:15
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 23:15
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 23:15
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 23:15
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 23:15
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 23:15
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 23:15
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 23:15
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 23:15
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 23:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111
Collection Date: 05/08/18 10:45 AM

Work Order: 1805671
Lab ID: 1805671-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 23:15
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 23:15
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 23:15
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 23:15
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 23:15
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 23:15
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 23:15
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 23:15
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 23:15
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 23:15
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 23:15
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 23:15
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 23:15
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 23:15
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 23:15
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 23:15
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 23:15
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 23:15
Styrene	U		0.24	0.79	µg/L	1	05/18/18 23:15
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 23:15
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 23:15
Toluene	**0.58**	J	**0.37**	**1.2**	**µg/L**	1	05/18/18 23:15
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 23:15
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 23:15
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 23:15
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 23:15
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 23:15
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 23:15
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	05/18/18 23:15
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1	05/18/18 23:15
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	05/18/18 23:15
Surr: Toluene-d8	*96.3*			*85-110*	*%REC*	1	05/18/18 23:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111A
Collection Date: 05/08/18 11:00 AM

Work Order: 1805671
Lab ID: 1805671-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 01:01
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 01:01
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 01:01
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 01:01
1,1-Dichloroethane	**17**		**0.31**	**1.0**	**µg/L**	1	05/16/18 01:01
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 01:01
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 01:01
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 01:01
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 01:01
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:01
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 01:01
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 01:01
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 01:01
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 01:01
1,2-Dichloroethane	**15**		**0.17**	**0.55**	**µg/L**	1	05/16/18 01:01
1,2-Dichloropropane	**3.5**		**0.25**	**0.83**	**µg/L**	1	05/16/18 01:01
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 01:01
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 01:01
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 01:01
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:01
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 01:01
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 01:01
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 01:01
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 01:01
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 01:01
4-Methyl-2-pentanone	**0.49**		**0.11**	**0.40**	**µg/L**	1	05/16/18 01:01
Acetone	U		0.92	3.1	µg/L	1	05/16/18 01:01
Benzene	**4.1**		**0.30**	**1.0**	**µg/L**	1	05/16/18 01:01
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 01:01
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 01:01
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 01:01
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 01:01
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 01:01
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 01:01
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 01:01
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 01:01
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 01:01
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 01:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111A
Collection Date: 05/08/18 11:00 AM

Work Order: 1805671
Lab ID: 1805671-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 01:01
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 01:01
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 01:01
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 01:01
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 01:01
Diisopropyl ether	**2.2**		**0.13**	**0.43**	**µg/L**	1	05/16/18 01:01
Ethylbenzene	**0.99**	J	**0.40**	**1.3**	**µg/L**	1	05/16/18 01:01
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 01:01
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 01:01
m,p-Xylene	**1.5**	J	**0.98**	**3.3**	**µg/L**	1	05/16/18 01:01
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 01:01
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 01:01
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 01:01
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 01:01
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 01:01
o-Xylene	**1.1**	J	**0.35**	**1.2**	**µg/L**	1	05/16/18 01:01
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 01:01
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 01:01
Styrene	U		0.24	0.79	µg/L	1	05/16/18 01:01
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 01:01
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 01:01
Toluene	**11**		**0.37**	**1.2**	**µg/L**	1	05/16/18 01:01
trans-1,2-Dichloroethene	**3.0**		**0.28**	**0.93**	**µg/L**	1	05/16/18 01:01
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 01:01
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 01:01
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 01:01
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 01:01
Xylenes, Total	**2.6**	J	**1.3**	**4.4**	**µg/L**	1	05/16/18 01:01
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	05/16/18 01:01
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/16/18 01:01
Surr: Dibromofluoromethane	*99.2*			*85-115*	*%REC*	1	05/16/18 01:01
Surr: Toluene-d8	*98.3*			*85-110*	*%REC*	1	05/16/18 01:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111B
Collection Date: 05/08/18 11:15 AM

Work Order: 1805671
Lab ID: 1805671-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 01:17
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 01:17
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 01:17
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 01:17
1,1-Dichloroethane	**24**		**0.31**	**1.0**	**µg/L**	1	05/16/18 01:17
1,1-Dichloroethene	**2.8**		**0.28**	**0.92**	**µg/L**	1	05/16/18 01:17
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 01:17
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 01:17
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 01:17
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:17
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 01:17
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 01:17
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 01:17
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 01:17
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 01:17
1,2-Dichloropropane	**0.87**		**0.25**	**0.83**	**µg/L**	1	05/16/18 01:17
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 01:17
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 01:17
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 01:17
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:17
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 01:17
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 01:17
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 01:17
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 01:17
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 01:17
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 01:17
Acetone	**2.2**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 01:17
Benzene	U		0.30	1.0	µg/L	1	05/16/18 01:17
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 01:17
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 01:17
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 01:17
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 01:17
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 01:17
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 01:17
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 01:17
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 01:17
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 01:17
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 01:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-111B
Collection Date: 05/08/18 11:15 AM

Work Order: 1805671
Lab ID: 1805671-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**15**		**0.25**	**0.85**	**µg/L**	1	05/16/18 01:17
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 01:17
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 01:17
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 01:17
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 01:17
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 01:17
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 01:17
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 01:17
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 01:17
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 01:17
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 01:17
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 01:17
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 01:17
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 01:17
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 01:17
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 01:17
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 01:17
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 01:17
Styrene	U		0.24	0.79	µg/L	1	05/16/18 01:17
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 01:17
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 01:17
Toluene	**1.5**		**0.37**	**1.2**	**µg/L**	1	05/16/18 01:17
trans-1,2-Dichloroethene	**2.2**		**0.28**	**0.93**	**µg/L**	1	05/16/18 01:17
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 01:17
Trichloroethene	**3.2**		**0.30**	**0.99**	**µg/L**	1	05/16/18 01:17
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 01:17
Vinyl chloride	**11**		**0.20**	**0.68**	**µg/L**	1	05/16/18 01:17
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 01:17
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 01:17
Surr: 4-Bromofluorobenzene	*97.2*			*80-110*	*%REC*	1	05/16/18 01:17
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 01:17
Surr: Toluene-d8	*98.8*			*85-110*	*%REC*	1	05/16/18 01:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112
Collection Date: 05/08/18 11:40 AM

Work Order: 1805671
Lab ID: 1805671-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 01:33
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 01:33
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 01:33
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 01:33
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 01:33
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 01:33
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 01:33
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 01:33
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 01:33
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:33
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 01:33
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 01:33
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 01:33
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 01:33
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 01:33
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 01:33
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 01:33
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 01:33
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 01:33
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:33
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 01:33
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 01:33
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 01:33
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 01:33
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 01:33
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 01:33
Acetone	**3.1**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 01:33
Benzene	U		0.30	1.0	µg/L	1	05/16/18 01:33
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 01:33
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 01:33
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 01:33
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 01:33
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 01:33
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 01:33
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 01:33
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 01:33
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 01:33
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 01:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112
Collection Date: 05/08/18 11:40 AM

Work Order: 1805671
Lab ID: 1805671-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 01:33
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 01:33
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 01:33
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 01:33
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 01:33
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 01:33
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 01:33
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 01:33
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 01:33
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 01:33
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 01:33
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 01:33
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 01:33
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 01:33
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 01:33
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 01:33
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 01:33
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 01:33
Styrene	U		0.24	0.79	µg/L	1	05/16/18 01:33
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 01:33
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 01:33
Toluene	**1.7**		**0.37**	**1.2**	**µg/L**	1	05/16/18 01:33
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 01:33
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 01:33
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 01:33
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 01:33
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 01:33
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 01:33
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 01:33
Surr: 4-Bromofluorobenzene	*97.6*			*80-110*	*%REC*	1	05/16/18 01:33
Surr: Dibromofluoromethane	*97.3*			*85-115*	*%REC*	1	05/16/18 01:33
Surr: Toluene-d8	*102*			*85-110*	*%REC*	1	05/16/18 01:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112A
Collection Date: 05/08/18 11:30 AM

Work Order: 1805671
Lab ID: 1805671-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 01:49
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 01:49
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 01:49
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 01:49
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 01:49
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 01:49
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 01:49
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 01:49
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 01:49
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:49
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 01:49
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 01:49
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 01:49
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 01:49
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 01:49
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 01:49
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 01:49
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 01:49
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 01:49
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 01:49
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 01:49
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 01:49
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 01:49
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 01:49
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 01:49
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 01:49
Acetone	U		0.92	3.1	µg/L	1	05/16/18 01:49
Benzene	U		0.30	1.0	µg/L	1	05/16/18 01:49
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 01:49
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 01:49
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 01:49
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 01:49
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 01:49
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 01:49
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 01:49
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 01:49
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 01:49
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 01:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112A
Collection Date: 05/08/18 11:30 AM

Work Order: 1805671
Lab ID: 1805671-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 01:49
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 01:49
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 01:49
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 01:49
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 01:49
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 01:49
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 01:49
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 01:49
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 01:49
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 01:49
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 01:49
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 01:49
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 01:49
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 01:49
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 01:49
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 01:49
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 01:49
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 01:49
Styrene	U		0.24	0.79	µg/L	1	05/16/18 01:49
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 01:49
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 01:49
Toluene	**1.8**		**0.37**	**1.2**	**µg/L**	1	05/16/18 01:49
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 01:49
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 01:49
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 01:49
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 01:49
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 01:49
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 01:49
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 01:49
Surr: 4-Bromofluorobenzene	*99.4*			*80-110*	*%REC*	1	05/16/18 01:49
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	05/16/18 01:49
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	05/16/18 01:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112B
Collection Date: 05/08/18 11:55 AM

Work Order: 1805671
Lab ID: 1805671-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 02:05
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 02:05
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 02:05
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 02:05
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 02:05
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 02:05
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 02:05
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 02:05
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 02:05
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:05
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 02:05
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 02:05
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 02:05
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 02:05
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 02:05
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 02:05
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 02:05
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 02:05
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 02:05
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:05
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 02:05
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 02:05
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 02:05
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 02:05
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 02:05
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 02:05
Acetone	U		0.92	3.1	µg/L	1	05/16/18 02:05
Benzene	U		0.30	1.0	µg/L	1	05/16/18 02:05
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 02:05
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 02:05
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 02:05
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 02:05
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 02:05
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 02:05
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 02:05
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 02:05
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 02:05
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 02:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-112B
Collection Date: 05/08/18 11:55 AM

Work Order: 1805671
Lab ID: 1805671-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 02:05
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 02:05
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 02:05
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 02:05
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 02:05
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 02:05
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 02:05
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 02:05
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 02:05
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 02:05
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 02:05
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 02:05
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 02:05
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 02:05
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 02:05
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 02:05
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 02:05
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 02:05
Styrene	U		0.24	0.79	µg/L	1	05/16/18 02:05
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 02:05
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 02:05
Toluene	**0.91**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 02:05
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 02:05
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 02:05
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 02:05
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 02:05
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 02:05
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 02:05
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	1	05/16/18 02:05
Surr: 4-Bromofluorobenzene	*102*			*80-110*	*%REC*	1	05/16/18 02:05
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	1	05/16/18 02:05
Surr: Toluene-d8	*102*			*85-110*	*%REC*	1	05/16/18 02:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114
Collection Date: 05/08/18 02:55 PM

Work Order: 1805671
Lab ID: 1805671-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 02:20
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 02:20
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 02:20
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 02:20
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 02:20
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 02:20
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 02:20
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 02:20
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 02:20
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:20
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 02:20
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 02:20
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 02:20
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 02:20
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 02:20
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 02:20
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 02:20
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 02:20
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 02:20
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:20
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 02:20
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 02:20
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 02:20
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 02:20
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 02:20
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 02:20
Acetone	**2.9**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 02:20
Benzene	U		0.30	1.0	µg/L	1	05/16/18 02:20
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 02:20
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 02:20
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 02:20
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 02:20
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 02:20
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 02:20
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 02:20
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 02:20
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 02:20
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 02:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114
Collection Date: 05/08/18 02:55 PM

Work Order: 1805671
Lab ID: 1805671-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**1.9**		**0.25**	**0.85**	**µg/L**	1	05/16/18 02:20
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 02:20
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 02:20
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 02:20
Dichlorodifluoromethane	**1.6**		**0.13**	**0.44**	**µg/L**	1	05/16/18 02:20
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 02:20
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 02:20
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 02:20
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 02:20
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 02:20
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 02:20
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 02:20
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 02:20
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 02:20
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 02:20
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 02:20
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 02:20
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 02:20
Styrene	U		0.24	0.79	µg/L	1	05/16/18 02:20
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 02:20
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 02:20
Toluene	**1.6**		**0.37**	**1.2**	**µg/L**	1	05/16/18 02:20
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 02:20
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 02:20
Trichloroethene	**2.7**		**0.30**	**0.99**	**µg/L**	1	05/16/18 02:20
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 02:20
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 02:20
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 02:20
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	1	05/16/18 02:20
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1	05/16/18 02:20
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 02:20
Surr: Toluene-d8	*97.5*			*85-110*	*%REC*	1	05/16/18 02:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114A
Collection Date: 05/08/18 03:05 PM

Work Order: 1805671
Lab ID: 1805671-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 02:36
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 02:36
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 02:36
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 02:36
1,1-Dichloroethane	**2.4**		**0.31**	**1.0**	**µg/L**	1	05/16/18 02:36
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 02:36
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 02:36
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 02:36
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 02:36
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:36
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 02:36
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 02:36
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 02:36
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 02:36
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 02:36
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 02:36
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 02:36
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 02:36
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 02:36
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:36
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 02:36
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 02:36
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 02:36
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 02:36
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 02:36
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 02:36
Acetone	U		0.92	3.1	µg/L	1	05/16/18 02:36
Benzene	U		0.30	1.0	µg/L	1	05/16/18 02:36
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 02:36
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 02:36
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 02:36
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 02:36
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 02:36
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 02:36
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 02:36
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 02:36
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 02:36
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 02:36

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114A
Collection Date: 05/08/18 03:05 PM

Work Order: 1805671
Lab ID: 1805671-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**1.3**		**0.25**	**0.85**	**µg/L**	1	05/16/18 02:36
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 02:36
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 02:36
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 02:36
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 02:36
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 02:36
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 02:36
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 02:36
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 02:36
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 02:36
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 02:36
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 02:36
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 02:36
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 02:36
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 02:36
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 02:36
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 02:36
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 02:36
Styrene	U		0.24	0.79	µg/L	1	05/16/18 02:36
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 02:36
Tetrachloroethene	**19**		**0.27**	**0.91**	**µg/L**	1	05/16/18 02:36
Toluene	**0.86**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 02:36
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 02:36
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 02:36
Trichloroethene	**5.8**		**0.30**	**0.99**	**µg/L**	1	05/16/18 02:36
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 02:36
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 02:36
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 02:36
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 02:36
Surr: 4-Bromofluorobenzene	*99.6*			*80-110*	*%REC*	1	05/16/18 02:36
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	1	05/16/18 02:36
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/16/18 02:36

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114B
Collection Date: 05/08/18 03:00 PM

Work Order: 1805671
Lab ID: 1805671-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 02:52
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 02:52
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 02:52
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 02:52
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 02:52
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 02:52
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 02:52
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 02:52
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 02:52
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:52
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 02:52
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 02:52
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 02:52
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 02:52
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 02:52
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 02:52
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 02:52
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 02:52
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 02:52
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 02:52
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 02:52
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 02:52
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 02:52
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 02:52
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 02:52
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 02:52
Acetone	U		0.92	3.1	µg/L	1	05/16/18 02:52
Benzene	U		0.30	1.0	µg/L	1	05/16/18 02:52
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 02:52
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 02:52
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 02:52
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 02:52
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 02:52
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 02:52
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 02:52
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 02:52
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 02:52
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 02:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-114B
Collection Date: 05/08/18 03:00 PM

Work Order: 1805671
Lab ID: 1805671-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 02:52
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 02:52
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 02:52
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 02:52
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 02:52
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 02:52
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 02:52
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 02:52
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 02:52
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 02:52
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 02:52
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 02:52
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 02:52
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 02:52
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 02:52
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 02:52
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 02:52
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 02:52
Styrene	U		0.24	0.79	µg/L	1	05/16/18 02:52
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 02:52
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 02:52
Toluene	**0.82**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 02:52
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 02:52
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 02:52
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 02:52
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 02:52
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 02:52
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 02:52
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 02:52
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1	05/16/18 02:52
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 02:52
Surr: Toluene-d8	*97.4*			*85-110*	*%REC*	1	05/16/18 02:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115
Collection Date: 05/08/18 01:35 PM

Work Order: 1805671
Lab ID: 1805671-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 03:08
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 03:08
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 03:08
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 03:08
1,1-Dichloroethane	**76**		**0.31**	**1.0**	**µg/L**	1	05/16/18 03:08
1,1-Dichloroethene	**2.0**		**0.28**	**0.92**	**µg/L**	1	05/16/18 03:08
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 03:08
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 03:08
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 03:08
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 03:08
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 03:08
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 03:08
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 03:08
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 03:08
1,2-Dichloroethane	**60**		**0.17**	**0.55**	**µg/L**	1	05/16/18 03:08
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 03:08
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 03:08
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 03:08
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 03:08
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 03:08
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 03:08
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 03:08
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 03:08
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 03:08
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 03:08
4-Methyl-2-pentanone	**4.2**		**0.11**	**0.40**	**µg/L**	1	05/16/18 03:08
Acetone	**5.5**		**0.92**	**3.1**	**µg/L**	1	05/16/18 03:08
Benzene	**10**		**0.30**	**1.0**	**µg/L**	1	05/16/18 03:08
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 03:08
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 03:08
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 03:08
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 03:08
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 03:08
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 03:08
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 03:08
Chloroethane	**1,100**		**15**	**48**	**µg/L**	50	05/18/18 21:23
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 03:08
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 03:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115
Collection Date: 05/08/18 01:35 PM

Work Order: 1805671
Lab ID: 1805671-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**15**		**0.25**	**0.85**	**µg/L**	1	05/16/18 03:08
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 03:08
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 03:08
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 03:08
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 03:08
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 03:08
Ethylbenzene	**0.67**	J	**0.40**	**1.3**	**µg/L**	1	05/16/18 03:08
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 03:08
Isopropylbenzene	**0.50**	J	**0.31**	**1.0**	**µg/L**	1	05/16/18 03:08
m,p-Xylene	**1.7**	J	**0.98**	**3.3**	**µg/L**	1	05/16/18 03:08
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 03:08
Methylene chloride	**1.5**	J	**0.56**	**1.8**	**µg/L**	1	05/16/18 03:08
Naphthalene	**0.26**	J	**0.18**	**0.59**	**µg/L**	1	05/16/18 03:08
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 03:08
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 03:08
o-Xylene	**2.4**		**0.35**	**1.2**	**µg/L**	1	05/16/18 03:08
p-Isopropyltoluene	**0.39**	J	**0.14**	**0.48**	**µg/L**	1	05/16/18 03:08
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 03:08
Styrene	U		0.24	0.79	µg/L	1	05/16/18 03:08
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 03:08
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 03:08
Toluene	**88**		**0.37**	**1.2**	**µg/L**	1	05/16/18 03:08
trans-1,2-Dichloroethene	**100**		**1.4**	**4.6**	**µg/L**	5	05/16/18 20:42
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 03:08
Trichloroethene	**1.6**		**0.30**	**0.99**	**µg/L**	1	05/16/18 03:08
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 03:08
Vinyl chloride	**7.1**		**0.20**	**0.68**	**µg/L**	1	05/16/18 03:08
Xylenes, Total	**4.0**	J	**1.3**	**4.4**	**µg/L**	1	05/16/18 03:08
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 03:08
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	5	05/16/18 20:42
Surr: 1,2-Dichloroethane-d4	*95.7*			*75-120*	*%REC*	50	05/18/18 21:23
Surr: 4-Bromofluorobenzene	*95.6*			*80-110*	*%REC*	1	05/16/18 03:08
Surr: 4-Bromofluorobenzene	*99.0*			*80-110*	*%REC*	5	05/16/18 20:42
Surr: 4-Bromofluorobenzene	*94.9*			*80-110*	*%REC*	50	05/18/18 21:23
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 03:08
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	5	05/16/18 20:42
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	50	05/18/18 21:23
Surr: Toluene-d8	*98.8*			*85-110*	*%REC*	1	05/16/18 03:08
Surr: Toluene-d8	*101*			*85-110*	*%REC*	5	05/16/18 20:42
Surr: Toluene-d8	*98.9*			*85-110*	*%REC*	50	05/18/18 21:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115A
Collection Date: 05/08/18 01:50 PM

Work Order: 1805671
Lab ID: 1805671-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 03:24
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 03:24
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 03:24
1,1,2-Trichloroethane	**32**		**0.40**	**1.3**	**µg/L**	1	05/16/18 03:24
1,1-Dichloroethane	**460**		**15**	**52**	**µg/L**	50	05/16/18 20:27
1,1-Dichloroethene	**220**		**14**	**46**	**µg/L**	50	05/16/18 20:27
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 03:24
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 03:24
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 03:24
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 03:24
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 03:24
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 03:24
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 03:24
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 03:24
1,2-Dichloroethane	**21**		**0.17**	**0.55**	**µg/L**	1	05/16/18 03:24
1,2-Dichloropropane	**27**		**0.25**	**0.83**	**µg/L**	1	05/16/18 03:24
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 03:24
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 03:24
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 03:24
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 03:24
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 03:24
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 03:24
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 03:24
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 03:24
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 03:24
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 03:24
Acetone	U		0.92	3.1	µg/L	1	05/16/18 03:24
Benzene	**1.3**		**0.30**	**1.0**	**µg/L**	1	05/16/18 03:24
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 03:24
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 03:24
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 03:24
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 03:24
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 03:24
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 03:24
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 03:24
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 03:24
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 03:24
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 03:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115A
Collection Date: 05/08/18 01:50 PM

Work Order: 1805671
Lab ID: 1805671-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**2,400**		**13**	**42**	**µg/L**	50	05/16/18 20:27
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 03:24
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 03:24
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 03:24
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 03:24
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 03:24
Ethylbenzene	**0.61**	J	**0.40**	**1.3**	**µg/L**	1	05/16/18 03:24
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 03:24
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 03:24
m,p-Xylene	**1.7**	J	**0.98**	**3.3**	**µg/L**	1	05/16/18 03:24
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 03:24
Methylene chloride	**0.75**	J	**0.56**	**1.8**	**µg/L**	1	05/16/18 03:24
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 03:24
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 03:24
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 03:24
o-Xylene	**0.78**	J	**0.35**	**1.2**	**µg/L**	1	05/16/18 03:24
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 03:24
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 03:24
Styrene	U		0.24	0.79	µg/L	1	05/16/18 03:24
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 03:24
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 03:24
Toluene	**5.5**		**0.37**	**1.2**	**µg/L**	1	05/16/18 03:24
trans-1,2-Dichloroethene	**72**		**0.28**	**0.93**	**µg/L**	1	05/16/18 03:24
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 03:24
Trichloroethene	**130**		**15**	**50**	**µg/L**	50	05/16/18 20:27
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 03:24
Vinyl chloride	**15**		**0.20**	**0.68**	**µg/L**	1	05/16/18 03:24
Xylenes, Total	**2.5**	J	**1.3**	**4.4**	**µg/L**	1	05/16/18 03:24
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 03:24
Surr: 1,2-Dichloroethane-d4	*99.0*			*75-120*	*%REC*	50	05/16/18 20:27
Surr: 4-Bromofluorobenzene	*97.6*			*80-110*	*%REC*	1	05/16/18 03:24
Surr: 4-Bromofluorobenzene	*98.1*			*80-110*	*%REC*	50	05/16/18 20:27
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 03:24
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	50	05/16/18 20:27
Surr: Toluene-d8	*96.6*			*85-110*	*%REC*	1	05/16/18 03:24
Surr: Toluene-d8	*98.8*			*85-110*	*%REC*	50	05/16/18 20:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115B
Collection Date: 05/08/18 02:25 PM

Work Order: 1805671
Lab ID: 1805671-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 18:51
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 18:51
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 18:51
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 18:51
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 18:51
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 18:51
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 18:51
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 18:51
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 18:51
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 18:51
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 18:51
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 18:51
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 18:51
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 18:51
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 18:51
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 18:51
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 18:51
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 18:51
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 18:51
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 18:51
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 18:51
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 18:51
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 18:51
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 18:51
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 18:51
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 18:51
Acetone	U		0.92	3.1	µg/L	1	05/16/18 18:51
Benzene	U		0.30	1.0	µg/L	1	05/16/18 18:51
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 18:51
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 18:51
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 18:51
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 18:51
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 18:51
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 18:51
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 18:51
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 18:51
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 18:51
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 18:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-115B
Collection Date: 05/08/18 02:25 PM

Work Order: 1805671
Lab ID: 1805671-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**2.2**		**0.25**	**0.85**	**µg/L**	1	05/16/18 18:51
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 18:51
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 18:51
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 18:51
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 18:51
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 18:51
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 18:51
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 18:51
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 18:51
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 18:51
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 18:51
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 18:51
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 18:51
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 18:51
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 18:51
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 18:51
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 18:51
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 18:51
Styrene	U		0.24	0.79	µg/L	1	05/16/18 18:51
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 18:51
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 18:51
Toluene	**1.0**	J	**0.37**	**1.2**	**µg/L**	1	05/16/18 18:51
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 18:51
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 18:51
Trichloroethene	**1.4**		**0.30**	**0.99**	**µg/L**	1	05/16/18 18:51
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 18:51
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 18:51
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 18:51
Surr: 1,2-Dichloroethane-d4	*97.6*			*75-120*	*%REC*	1	05/16/18 18:51
Surr: 4-Bromofluorobenzene	*99.2*			*80-110*	*%REC*	1	05/16/18 18:51
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 18:51
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/16/18 18:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Field Blank
Collection Date: 05/08/18 09:50 AM

Work Order: 1805671
Lab ID: 1805671-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 12:46
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 12:46
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 12:46
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 12:46
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 12:46
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 12:46
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 12:46
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 12:46
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 12:46
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 12:46
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 12:46
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 12:46
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 12:46
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 12:46
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 12:46
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 12:46
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 12:46
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 12:46
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 12:46
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 12:46
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 12:46
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 12:46
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 12:46
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 12:46
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 12:46
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 12:46
Acetone	**2.4**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 12:46
Benzene	U		0.30	1.0	µg/L	1	05/16/18 12:46
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 12:46
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 12:46
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 12:46
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 12:46
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 12:46
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 12:46
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 12:46
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 12:46
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 12:46
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 12:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Field Blank
Collection Date: 05/08/18 09:50 AM

Work Order: 1805671
Lab ID: 1805671-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 12:46
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 12:46
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 12:46
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 12:46
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 12:46
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 12:46
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 12:46
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 12:46
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 12:46
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 12:46
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 12:46
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 12:46
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 12:46
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 12:46
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 12:46
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 12:46
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 12:46
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 12:46
Styrene	U		0.24	0.79	µg/L	1	05/16/18 12:46
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 12:46
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 12:46
Toluene	U		0.37	1.2	µg/L	1	05/16/18 12:46
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 12:46
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 12:46
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 12:46
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 12:46
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 12:46
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 12:46
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 12:46
Surr: 4-Bromofluorobenzene	*97.0*			*80-110*	*%REC*	1	05/16/18 12:46
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 12:46
Surr: Toluene-d8	*98.4*			*85-110*	*%REC*	1	05/16/18 12:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 2N
Collection Date: 05/08/18 10:50 AM

Work Order: 1805671
Lab ID: 1805671-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 19:07
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 19:07
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 19:07
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 19:07
1,1-Dichloroethane	**5.9**		**0.31**	**1.0**	**µg/L**	1	05/16/18 19:07
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 19:07
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 19:07
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 19:07
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 19:07
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 19:07
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 19:07
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 19:07
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 19:07
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 19:07
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 19:07
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 19:07
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 19:07
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 19:07
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 19:07
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 19:07
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 19:07
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 19:07
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 19:07
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 19:07
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 19:07
4-Methyl-2-pentanone	**1.6**		**0.11**	**0.40**	**µg/L**	1	05/16/18 19:07
Acetone	U		0.92	3.1	µg/L	1	05/16/18 19:07
Benzene	U		0.30	1.0	µg/L	1	05/16/18 19:07
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 19:07
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 19:07
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 19:07
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 19:07
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 19:07
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 19:07
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 19:07
Chloroethane	**7.5**		**0.29**	**0.97**	**µg/L**	1	05/16/18 19:07
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 19:07
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 19:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 2N
Collection Date: 05/08/18 10:50 AM

Work Order: 1805671
Lab ID: 1805671-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**0.95**		**0.25**	**0.85**	**µg/L**	1	05/16/18 19:07
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 19:07
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 19:07
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 19:07
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 19:07
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 19:07
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 19:07
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 19:07
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 19:07
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 19:07
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 19:07
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 19:07
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 19:07
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 19:07
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 19:07
o-Xylene	**0.43**	J	**0.35**	**1.2**	**µg/L**	1	05/16/18 19:07
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 19:07
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 19:07
Styrene	U		0.24	0.79	µg/L	1	05/16/18 19:07
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 19:07
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 19:07
Toluene	**2.2**		**0.37**	**1.2**	**µg/L**	1	05/16/18 19:07
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 19:07
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 19:07
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 19:07
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 19:07
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 19:07
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 19:07
Surr: 1,2-Dichloroethane-d4	*95.9*			*75-120*	*%REC*	1	05/16/18 19:07
Surr: 4-Bromofluorobenzene	*98.2*			*80-110*	*%REC*	1	05/16/18 19:07
Surr: Dibromofluoromethane	*96.8*			*85-115*	*%REC*	1	05/16/18 19:07
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	05/16/18 19:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 7N
Collection Date: 05/08/18 10:55 AM

Work Order: 1805671
Lab ID: 1805671-24
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 04:11
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 04:11
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 04:11
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 04:11
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 04:11
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 04:11
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 04:11
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 04:11
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 04:11
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 04:11
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 04:11
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 04:11
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 04:11
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 04:11
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 04:11
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 04:11
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 04:11
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 04:11
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 04:11
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 04:11
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 04:11
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 04:11
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 04:11
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 04:11
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 04:11
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 04:11
Acetone	**3.3**		**0.92**	**3.1**	**µg/L**	1	05/16/18 04:11
Benzene	U		0.30	1.0	µg/L	1	05/16/18 04:11
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 04:11
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 04:11
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 04:11
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 04:11
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 04:11
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 04:11
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 04:11
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 04:11
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 04:11
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 04:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 7N
Collection Date: 05/08/18 10:55 AM

Work Order: 1805671
Lab ID: 1805671-24
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 04:11
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 04:11
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 04:11
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 04:11
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 04:11
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 04:11
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 04:11
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 04:11
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 04:11
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 04:11
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 04:11
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 04:11
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 04:11
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 04:11
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 04:11
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 04:11
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 04:11
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 04:11
Styrene	U		0.24	0.79	µg/L	1	05/16/18 04:11
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 04:11
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 04:11
Toluene	U		0.37	1.2	µg/L	1	05/16/18 04:11
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 04:11
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 04:11
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 04:11
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 04:11
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 04:11
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 04:11
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 04:11
Surr: 4-Bromofluorobenzene	*101*			*80-110*	*%REC*	1	05/16/18 04:11
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 04:11
Surr: Toluene-d8	*102*			*85-110*	*%REC*	1	05/16/18 04:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 8N
Collection Date: 05/08/18 11:00 AM

Work Order: 1805671
Lab ID: 1805671-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 04:27
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 04:27
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 04:27
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 04:27
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 04:27
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 04:27
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 04:27
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 04:27
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 04:27
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 04:27
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 04:27
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 04:27
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 04:27
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 04:27
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 04:27
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 04:27
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 04:27
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 04:27
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 04:27
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 04:27
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 04:27
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 04:27
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 04:27
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 04:27
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 04:27
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 04:27
Acetone	U		0.92	3.1	µg/L	1	05/16/18 04:27
Benzene	U		0.30	1.0	µg/L	1	05/16/18 04:27
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 04:27
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 04:27
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 04:27
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 04:27
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 04:27
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 04:27
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 04:27
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 04:27
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 04:27
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 04:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 8N
Collection Date: 05/08/18 11:00 AM

Work Order: 1805671
Lab ID: 1805671-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 04:27
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 04:27
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 04:27
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 04:27
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 04:27
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 04:27
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 04:27
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 04:27
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 04:27
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 04:27
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 04:27
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 04:27
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 04:27
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 04:27
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 04:27
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 04:27
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 04:27
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 04:27
Styrene	U		0.24	0.79	µg/L	1	05/16/18 04:27
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 04:27
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 04:27
Toluene	U		0.37	1.2	µg/L	1	05/16/18 04:27
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 04:27
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 04:27
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 04:27
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 04:27
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 04:27
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 04:27
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	1	05/16/18 04:27
Surr: 4-Bromofluorobenzene	*97.4*			*80-110*	*%REC*	1	05/16/18 04:27
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/16/18 04:27
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/16/18 04:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 9N
Collection Date: 05/08/18 11:05 AM

Work Order: 1805671
Lab ID: 1805671-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 23:31
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 23:31
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 23:31
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 23:31
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 23:31
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 23:31
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 23:31
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 23:31
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 23:31
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 23:31
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 23:31
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 23:31
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 23:31
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 23:31
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 23:31
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 23:31
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 23:31
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 23:31
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 23:31
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 23:31
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 23:31
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 23:31
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 23:31
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 23:31
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 23:31
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 23:31
Acetone	U		0.92	3.1	µg/L	1	05/18/18 23:31
Benzene	U		0.30	1.0	µg/L	1	05/18/18 23:31
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 23:31
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 23:31
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 23:31
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 23:31
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 23:31
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 23:31
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 23:31
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 23:31
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 23:31
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 23:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Seep 9N
Collection Date: 05/08/18 11:05 AM

Work Order: 1805671
Lab ID: 1805671-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 23:31
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 23:31
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 23:31
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 23:31
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 23:31
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 23:31
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 23:31
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 23:31
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 23:31
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 23:31
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 23:31
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 23:31
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 23:31
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 23:31
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 23:31
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 23:31
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 23:31
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 23:31
Styrene	U		0.24	0.79	µg/L	1	05/18/18 23:31
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 23:31
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 23:31
Toluene	U		0.37	1.2	µg/L	1	05/18/18 23:31
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 23:31
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 23:31
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 23:31
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 23:31
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 23:31
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 23:31
Surr: 1,2-Dichloroethane-d4	*95.6*			*75-120*	*%REC*	1	05/18/18 23:31
Surr: 4-Bromofluorobenzene	*96.7*			*80-110*	*%REC*	1	05/18/18 23:31
Surr: Dibromofluoromethane	*98.2*			*85-115*	*%REC*	1	05/18/18 23:31
Surr: Toluene-d8	*97.6*			*85-110*	*%REC*	1	05/18/18 23:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/08/18

Work Order: 1805671
Lab ID: 1805671-27
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 18:35
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/16/18 18:35
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 18:35
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 18:35
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 18:35
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 18:35
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 18:35
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 18:35
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 18:35
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 18:35
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 18:35
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 18:35
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 18:35
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 18:35
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 18:35
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 18:35
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 18:35
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 18:35
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 18:35
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 18:35
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 18:35
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 18:35
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 18:35
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 18:35
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 18:35
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 18:35
Acetone	U		0.92	3.1	µg/L	1	05/16/18 18:35
Benzene	U		0.30	1.0	µg/L	1	05/16/18 18:35
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 18:35
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 18:35
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 18:35
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 18:35
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 18:35
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 18:35
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 18:35
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 18:35
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 18:35
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 18:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/08/18

Work Order: 1805671
Lab ID: 1805671-27
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/16/18 18:35
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 18:35
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 18:35
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 18:35
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 18:35
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 18:35
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 18:35
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 18:35
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 18:35
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 18:35
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 18:35
Methylene chloride	**1.0**	J	**0.56**	**1.8**	**µg/L**	1	05/16/18 18:35
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 18:35
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 18:35
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 18:35
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 18:35
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 18:35
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 18:35
Styrene	U		0.24	0.79	µg/L	1	05/16/18 18:35
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 18:35
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/16/18 18:35
Toluene	U		0.37	1.2	µg/L	1	05/16/18 18:35
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 18:35
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 18:35
Trichloroethene	U		0.30	0.99	µg/L	1	05/16/18 18:35
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 18:35
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 18:35
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 18:35
Surr: 1,2-Dichloroethane-d4	*99.4*			*75-120*	*%REC*	1	05/16/18 18:35
Surr: 4-Bromofluorobenzene	*98.6*			*80-110*	*%REC*	1	05/16/18 18:35
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	1	05/16/18 18:35
Surr: Toluene-d8	*99.7*			*85-110*	*%REC*	1	05/16/18 18:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180414-R236004** Units: **µg/L** Analysis Date: **05/16/18 12:14 PM**

Client ID: Run ID: **VMS8_180515A** SeqNo: **5093248** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

Dibromomethane	U	0.25	0.83					
Dichlorodifluoromethane	U	0.13	0.44					
Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.11*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.81*	0	0	*20*	0	*99*	*80-110*	0
Surr: Dibromofluoromethane	*20.61*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*20.34*	0	0	*20*	0	*102*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180514-R236004** Units: **µg/L** Analysis Date: **05/15/18 11:27 PM**
Client ID: Run ID: **VMS8_180515A** SeqNo: **5093223** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.6	0.22	0.74	20	0	103	73-114	0			
1,1,1-Trichloroethane	21.78	0.36	1.2	20	0	109	75-130	0			
1,1,2,2-Tetrachloroethane	21.94	0.19	0.62	20	0	110	75-130	0			
1,1,2-Trichloroethane	18.4	0.4	1.3	20	0	92	75-125	0			
1,1-Dichloroethane	20.35	0.31	1.0	20	0	102	75-133	0			
1,1-Dichloroethene	21.15	0.28	0.92	20	0	106	70-145	0			
1,1-Dichloropropene	19.48	0.35	1.2	20	0	97.4	75-135	0			
1,2,3-Trichlorobenzene	22.21	0.17	0.55	20	0	111	70-140	0			
1,2,3-Trichloropropane	19.53	0.11	0.40	20	0	97.6	75-125	0			
1,2,4-Trichlorobenzene	20.81	0.21	0.71	20	0	104	70-135	0			
1,2,4-Trimethylbenzene	20.16	0.37	1.2	20	0	101	75-130	0			
1,2-Dibromo-3-chloropropane	20.46	0.97	3.2	20	0	102	60-130	0			
1,2-Dibromoethane	20.92	0.98	3.3	20	0	105	90-195	0			
1,2-Dichlorobenzene	22.07	0.22	0.73	20	0	110	70-130	0			
1,2-Dichloroethane	19.54	0.17	0.55	20	0	97.7	78-125	0			
1,2-Dichloropropane	20.07	0.25	0.83	20	0	100	75-125	0			
1,3,5-Trimethylbenzene	20.79	0.29	0.95	20	0	104	75-130	0			
1,3-Dichlorobenzene	21.78	0.29	0.96	20	0	109	75-130	0			
1,3-Dichloropropane	19.63	0.18	0.61	20	0	98.2	75-125	0			
1,4-Dichlorobenzene	21.61	0.21	0.71	20	0	108	75-130	0			
2,2-Dichloropropane	18.87	0.44	1.5	20	0	94.4	43-150	0			
2-Butanone	19.15	0.58	2.0	20	0	95.8	55-150	0			
2-Chlorotoluene	21.32	0.32	1.1	20	0	107	84-133	0			
4-Chlorotoluene	20.62	0.28	0.95	20	0	103	80-125	0			
4-Methyl-2-pentanone	31.61	0.11	0.40	20	0	158	77-178	0			
Acetone	18.91	0.92	3.1	20	0	94.6	60-160	0			
Benzene	20.58	0.3	1.0	20	0	103	85-125	0			
Bromobenzene	20.63	0.24	0.80	20	0	103	80-125	0			
Bromochloromethane	19.98	0.2	0.66	20	0	99.9	72-141	0			
Bromodichloromethane	20.79	0.23	0.78	20	0	104	75-125	0			
Bromoform	20.9	0.77	2.6	20	0	104	60-125	0			
Bromomethane	22.24	0.38	1.3	20	0	111	30-185	0			
Carbon tetrachloride	20.7	0.31	1.0	20	0	104	65-140	0			
Chlorobenzene	20.25	0.27	0.90	20	0	101	80-120	0			
Chloroethane	15.4	0.29	0.97	20	0	77	50-140	0			
Chloroform	19.78	0.26	0.86	20	0	98.9	80-130	0			
Chloromethane	18.12	0.17	0.57	20	0	90.6	46-148	0			
cis-1,2-Dichloroethene	21.43	0.25	0.85	20	0	107	75-134	0			
cis-1,3-Dichloropropene	20.77	0.39	1.3	20	0	104	70-130	0			
Dibromochloromethane	19.61	0.38	1.2	20	0	98	60-115	0			
Dibromomethane	19.58	0.25	0.83	20	0	97.9	85-125	0			
Dichlorodifluoromethane	16.44	0.13	0.44	20	0	82.2	20-120	0			
Ethylbenzene	21.09	0.4	1.3	20	0	105	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004**	Instrument ID **VMS8**			Method: **SW8260C**				
Hexachlorobutadiene	22.78	0.24	0.80	20	0	114	70-155	0
Isopropylbenzene	20.21	0.31	1.0	20	0	101	80-127	0
m,p-Xylene	42.59	0.98	3.3	40	0	106	75-130	0
Methyl tert-butyl ether	22.98	0.12	0.40	20	0	115	80-130	0
Methylene chloride	19.8	0.56	1.8	20	0	99	75-140	0
Naphthalene	21.68	0.18	0.59	20	0	108	55-160	0
n-Butylbenzene	21.43	0.22	0.73	20	0	107	75-145	0
n-Propylbenzene	21.02	0.24	0.81	20	0	105	83-135	0
o-Xylene	20.6	0.35	1.2	20	0	103	80-125	0
p-Isopropyltoluene	21.18	0.14	0.48	20	0	106	61-164	0
sec-Butylbenzene	20.4	0.29	0.98	20	0	102	80-134	0
Styrene	21.6	0.24	0.79	20	0	108	83-137	0
tert-Butylbenzene	19.32	0.34	1.2	20	0	96.6	70-130	0
Tetrachloroethene	21.54	0.27	0.91	20	0	108	68-166	0
Toluene	20.61	0.37	1.2	20	0	103	76-125	0
trans-1,2-Dichloroethene	20.7	0.28	0.93	20	0	104	80-140	0
trans-1,3-Dichloropropene	19.54	0.82	2.7	20	0	97.7	56-132	0
Trichloroethene	20.03	0.3	0.99	20	0	100	84-130	0
Trichlorofluoromethane	19.33	0.2	0.66	20	0	96.6	60-140	0
Vinyl chloride	19.37	0.2	0.68	20	0	96.8	50-136	0
Xylenes, Total	63.19	1.3	4.4	60	0	105	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.84*	0	0	*20*	0	*99.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.67*	0	0	*20*	0	*98.4*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.93*	0	0	*20*	0	*99.6*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805699-01A MS** Units: **µg/L** Analysis Date: **05/16/18 06:01 AM**

Client ID: Run ID: **VMS8_180515A** SeqNo: **5093246** Prep Date: DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	399	4.4	15	400	0	99.8	73-114	0			
1,1,1-Trichloroethane	404.8	7.2	24	400	0	101	75-130	0			
1,1,2,2-Tetrachloroethane	444	3.7	12	400	0	111	75-130	0			
1,1,2-Trichloroethane	377.8	8	27	400	0	94.4	75-125	0			
1,1-Dichloroethane	393.6	6.2	21	400	0	98.4	75-133	0			
1,1-Dichloroethene	423.2	5.5	18	400	0	106	70-145	0			
1,1-Dichloropropene	354	7.1	24	400	0	88.5	75-135	0			
1,2,3-Trichlorobenzene	404.2	3.3	11	400	0	101	70-140	0			
1,2,3-Trichloropropane	379.6	2.2	8.0	400	0	94.9	75-125	0			
1,2,4-Trichlorobenzene	375	4.3	14	400	0	93.8	70-135	0			
1,2,4-Trimethylbenzene	375.2	7.4	25	400	0	93.8	75-130	0			
1,2-Dibromo-3-chloropropane	396	19	65	400	0	99	60-130	0			
1,2-Dibromoethane	422.2	20	66	400	0	106	90-195	0			
1,2-Dichlorobenzene	413	4.4	15	400	0	103	70-130	0			
1,2-Dichloroethane	377.2	3.3	11	400	0	94.3	78-125	0			
1,2-Dichloropropane	375.6	5	17	400	0	93.9	75-125	0			
1,3,5-Trimethylbenzene	394.8	5.7	19	400	0	98.7	75-130	0			
1,3-Dichlorobenzene	398.2	5.8	19	400	0	99.6	75-130	0			
1,3-Dichloropropane	397.6	3.7	12	400	0	99.4	75-125	0			
1,4-Dichlorobenzene	406.8	4.3	14	400	0	102	75-130	0			
2,2-Dichloropropane	311.2	8.9	30	400	0	77.8	43-150	0			
2-Butanone	372.6	12	39	400	0	93.2	55-150	0			
2-Chlorotoluene	402.4	6.5	22	400	0	101	84-133	0			
4-Chlorotoluene	392.6	5.7	19	400	0	98.2	80-125	0			
4-Methyl-2-pentanone	638.6	2.3	8.0	400	0	160	77-178	0			
Acetone	427.8	18	61	400	0	107	60-160	0			
Benzene	391	6.1	20	400	0	97.8	85-125	0			
Bromobenzene	400	4.8	16	400	0	100	80-125	0			
Bromochloromethane	388.2	3.9	13	400	0	97	72-141	0			
Bromodichloromethane	384.2	4.7	16	400	0	96	75-125	0			
Bromoform	407.8	15	51	400	0	102	60-125	0			
Bromomethane	614.6	7.5	25	400	0	154	30-185	0			
Carbon tetrachloride	398.8	6.2	21	400	0	99.7	65-140	0			
Chlorobenzene	389.8	5.4	18	400	0	97.4	80-120	0			
Chloroethane	366.6	5.8	19	400	0	91.6	50-140	0			
Chloroform	376.8	5.1	17	400	0	94.2	80-130	0			
Chloromethane	323.4	3.4	11	400	0	80.8	46-148	0			
cis-1,2-Dichloroethene	407.2	5.1	17	400	0	102	75-134	0			
cis-1,3-Dichloropropene	382.4	7.8	26	400	0	95.6	70-130	0			
Dibromochloromethane	383.2	7.5	25	400	0	95.8	60-115	0			
Dibromomethane	391.4	5	17	400	0	97.8	85-125	0			
Dichlorodifluoromethane	248.6	2.7	8.8	400	0	62.2	20-120	0			
Ethylbenzene	402.8	8.1	27	400	0	101	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	390.2	4.8	16	400	0	97.6	70-155	0
Isopropylbenzene	384	6.3	21	400	0	96	80-127	0
m,p-Xylene	784.6	20	65	800	0	98.1	75-130	0
Methyl tert-butyl ether	465.8	2.3	8.0	400	0	116	80-130	0
Methylene chloride	380	11	37	400	10.6	92.4	75-140	0
Naphthalene	411.2	3.5	12	400	0	103	55-160	0
n-Butylbenzene	385.4	4.4	15	400	0	96.4	75-145	0
n-Propylbenzene	397	4.9	16	400	0	99.2	83-135	0
o-Xylene	399.8	7.1	24	400	0	100	80-125	0
p-Isopropyltoluene	394	2.9	9.6	400	0	98.5	61-164	0
sec-Butylbenzene	393	5.9	20	400	0	98.2	80-134	0
Styrene	480.4	4.8	16	400	126.4	88.5	83-137	0
tert-Butylbenzene	377.2	6.9	23	400	0	94.3	70-130	0
Tetrachloroethene	403.6	5.5	18	400	0	101	68-166	0
Toluene	401.6	7.3	24	400	0	100	76-125	0
trans-1,2-Dichloroethene	388.6	5.6	19	400	0	97.2	80-140	0
trans-1,3-Dichloropropene	385.6	16	55	400	0	96.4	56-132	0
Trichloroethene	381.8	6	20	400	0	95.4	84-130	0
Trichlorofluoromethane	392.2	4	13	400	0	98	60-140	0
Vinyl chloride	341.2	4.1	14	400	0	85.3	50-136	0
Xylenes, Total	1184	27	89	1200	0	98.7	80-126	0
Surr: 1,2-Dichloroethane-d4	*400.6*	0	0	*400*	0	*100*	*75-120*	0
Surr: 4-Bromofluorobenzene	*401.4*	0	0	*400*	0	*100*	*80-110*	0
Surr: Dibromofluoromethane	*405.4*	0	0	*400*	0	*101*	*85-115*	0
Surr: Toluene-d8	*403.6*	0	0	*400*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805699-01A MSD** Units: **µg/L** Analysis Date: **05/16/18 06:17 AM**

Client ID: Run ID: **VMS8_180515A** SeqNo: **5093247** Prep Date: DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	428.4	4.4	15	400	0	107	73-114	399	7.11	30	
1,1,1-Trichloroethane	446.2	7.2	24	400	0	112	75-130	404.8	9.73	30	
1,1,2,2-Tetrachloroethane	460	3.7	12	400	0	115	75-130	444	3.54	30	
1,1,2-Trichloroethane	392.2	8	27	400	0	98	75-125	377.8	3.74	30	
1,1-Dichloroethane	413.8	6.2	21	400	0	103	75-133	393.6	5	30	
1,1-Dichloroethene	460.4	5.5	18	400	0	115	70-145	423.2	8.42	30	
1,1-Dichloropropene	401.2	7.1	24	400	0	100	75-135	354	12.5	30	
1,2,3-Trichlorobenzene	426	3.3	11	400	0	106	70-140	404.2	5.25	30	
1,2,3-Trichloropropane	402.4	2.2	8.0	400	0	101	75-125	379.6	5.83	30	
1,2,4-Trichlorobenzene	403	4.3	14	400	0	101	70-135	375	7.2	30	
1,2,4-Trimethylbenzene	403	7.4	25	400	0	101	75-130	375.2	7.14	30	
1,2-Dibromo-3-chloropropane	413.2	19	65	400	0	103	60-130	396	4.25	30	
1,2-Dibromoethane	438.2	20	66	400	0	110	90-195	422.2	3.72	30	
1,2-Dichlorobenzene	430	4.4	15	400	0	108	70-130	413	4.03	30	
1,2-Dichloroethane	394.8	3.3	11	400	0	98.7	78-125	377.2	4.56	30	
1,2-Dichloropropane	407.4	5	17	400	0	102	75-125	375.6	8.12	30	
1,3,5-Trimethylbenzene	415.4	5.7	19	400	0	104	75-130	394.8	5.09	30	
1,3-Dichlorobenzene	420.4	5.8	19	400	0	105	75-130	398.2	5.42	30	
1,3-Dichloropropane	411.4	3.7	12	400	0	103	75-125	397.6	3.41	30	
1,4-Dichlorobenzene	426	4.3	14	400	0	106	75-130	406.8	4.61	30	
2,2-Dichloropropane	338.2	8.9	30	400	0	84.6	43-150	311.2	8.32	30	
2-Butanone	403	12	39	400	0	101	55-150	372.6	7.84	30	
2-Chlorotoluene	437.6	6.5	22	400	0	109	84-133	402.4	8.38	30	
4-Chlorotoluene	408	5.7	19	400	0	102	80-125	392.6	3.85	30	
4-Methyl-2-pentanone	659	2.3	8.0	400	0	165	77-178	638.6	3.14	30	
Acetone	431.2	18	61	400	0	108	60-160	427.8	0.792	30	
Benzene	416.8	6.1	20	400	0	104	85-125	391	6.39	30	
Bromobenzene	414	4.8	16	400	0	104	80-125	400	3.44	30	
Bromochloromethane	423.8	3.9	13	400	0	106	72-141	388.2	8.77	30	
Bromodichloromethane	421.6	4.7	16	400	0	105	75-125	384.2	9.28	30	
Bromoform	438.6	15	51	400	0	110	60-125	407.8	7.28	30	
Bromomethane	909.8	7.5	25	400	0	227	30-185	614.6	38.7	30	SR
Carbon tetrachloride	423.6	6.2	21	400	0	106	65-140	398.8	6.03	30	
Chlorobenzene	418.6	5.4	18	400	0	105	80-120	389.8	7.13	30	
Chloroethane	379.8	5.8	19	400	0	95	50-140	366.6	3.54	30	
Chloroform	401.4	5.1	17	400	0	100	80-130	376.8	6.32	30	
Chloromethane	327.6	3.4	11	400	0	81.9	46-148	323.4	1.29	30	
cis-1,2-Dichloroethene	423	5.1	17	400	0	106	75-134	407.2	3.81	30	
cis-1,3-Dichloropropene	401.2	7.8	26	400	0	100	70-130	382.4	4.8	30	
Dibromochloromethane	403.2	7.5	25	400	0	101	60-115	383.2	5.09	30	
Dibromomethane	408.2	5	17	400	0	102	85-125	391.4	4.2	30	
Dichlorodifluoromethane	266.2	2.7	8.8	400	0	66.6	20-120	248.6	6.84	30	
Ethylbenzene	438.4	8.1	27	400	0	110	76-123	402.8	8.46	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	421.6	4.8	16	400	0	105	70-155	390.2	7.74	30
Isopropylbenzene	415.8	6.3	21	400	0	104	80-127	384	7.95	30
m,p-Xylene	872.4	20	65	800	0	109	75-130	784.6	10.6	30
Methyl tert-butyl ether	462.6	2.3	8.0	400	0	116	80-130	465.8	0.689	30
Methylene chloride	401.8	11	37	400	10.6	97.8	75-140	380	5.58	30
Naphthalene	415	3.5	12	400	0	104	55-160	411.2	0.92	30
n-Butylbenzene	413	4.4	15	400	0	103	75-145	385.4	6.91	30
n-Propylbenzene	427.6	4.9	16	400	0	107	83-135	397	7.42	30
o-Xylene	423.8	7.1	24	400	0	106	80-125	399.8	5.83	30
p-Isopropyltoluene	416	2.9	9.6	400	0	104	61-164	394	5.43	30
sec-Butylbenzene	416.6	5.9	20	400	0	104	80-134	393	5.83	30
Styrene	483.8	4.8	16	400	126.4	89.4	83-137	480.4	0.705	30
tert-Butylbenzene	398.8	6.9	23	400	0	99.7	70-130	377.2	5.57	30
Tetrachloroethene	435.4	5.5	18	400	0	109	68-166	403.6	7.58	30
Toluene	425.6	7.3	24	400	0	106	76-125	401.6	5.8	30
trans-1,2-Dichloroethene	418.2	5.6	19	400	0	105	80-140	388.6	7.34	30
trans-1,3-Dichloropropene	386.4	16	55	400	0	96.6	56-132	385.6	0.207	30
Trichloroethene	409.4	6	20	400	0	102	84-130	381.8	6.98	30
Trichlorofluoromethane	448.8	4	13	400	0	112	60-140	392.2	13.5	30
Vinyl chloride	364.4	4.1	14	400	0	91.1	50-136	341.2	6.58	30
Xylenes, Total	1296	27	89	1200	0	108	80-126	1184	9.01	30
Surr: 1,2-Dichloroethane-d4	*408.8*	0	0	*400*	0	*102*	*75-120*	400.6	*2.03*	*30*
Surr: 4-Bromofluorobenzene	*388.8*	0	0	*400*	0	*97.2*	*80-110*	401.4	*3.19*	*30*
Surr: Dibromofluoromethane	*404.2*	0	0	*400*	0	*101*	*85-115*	405.4	*0.296*	*30*
Surr: Toluene-d8	*402.8*	0	0	*400*	0	*101*	*85-110*	403.6	*0.198*	*30*

The following samples were analyzed in this batch:

1805671-11A	1805671-12A	1805671-13A
1805671-14A	1805671-15A	1805671-16A
1805671-17A	1805671-18A	1805671-19A
1805671-20A	1805671-21A	1805671-22A
1805671-23A	1805671-24A	1805671-25A

QC BATCH REPORT

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180414-R236004a** Units: **µg/L** Analysis Date: **05/16/18 12:14 PM**
Client ID: Run ID: **VMS8_180515A** SeqNo: **5036441** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004a**	Instrument ID **VMS8**			Method: **SW8260C**				
Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*20.11*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.81*	0	0	*20*	0	*99*	*80-110*	0
Surr: Dibromofluoromethane	*20.61*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*20.34*	0	0	*20*	0	*102*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180514-R236004a** Units: **µg/L** Analysis Date: **05/15/18 11:27 PM**
Client ID: Run ID: **VMS8_180515A** SeqNo: **5036423** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.78	0.33	1.0	20	0	109	75-130	0			
1,1,2,2-Tetrachloroethane	21.94	0.17	1.0	20	0	110	75-130	0			
1,1,2-Trichloroethane	18.4	0.22	1.0	20	0	92	75-125	0			
1,1-Dichloroethane	20.35	0.48	1.0	20	0	102	68-142	0			
1,1-Dichloroethene	21.15	0.36	1.0	20	0	106	70-145	0			
1,2,3-Trichlorobenzene	22.21	0.29	1.0	20	0	111	70-140	0			
1,2,4-Trichlorobenzene	20.81	0.25	1.0	20	0	104	70-135	0			
1,2-Dibromo-3-chloropropane	20.46	0.43	1.0	20	0	102	60-130	0			
1,2-Dibromoethane	20.92	0.17	1.0	20	0	105	67-155	0			
1,2-Dichlorobenzene	22.07	0.12	1.0	20	0	110	70-130	0			
1,2-Dichloroethane	19.54	0.11	1.0	20	0	97.7	78-125	0			
1,2-Dichloropropane	20.07	0.34	1.0	20	0	100	75-125	0			
1,3-Dichlorobenzene	21.78	0.13	1.0	20	0	109	75-130	0			
1,4-Dichlorobenzene	21.61	0.13	1.0	20	0	108	75-130	0			
2-Butanone	19.15	0.47	5.0	20	0	95.8	55-150	0			
2-Hexanone	20.14	0.5	5.0	20	0	101	60-135	0			
4-Methyl-2-pentanone	31.61	0.52	1.0	20	0	158	77-178	0			
Acetone	18.91	0.47	10	20	0	94.6	60-160	0			
Benzene	20.58	0.42	1.0	20	0	103	85-125	0			
Bromochloromethane	19.98	0.15	1.0	20	0	99.9	72-141	0			
Bromodichloromethane	20.79	0.22	1.0	20	0	104	75-125	0			
Bromoform	20.9	0.56	1.0	20	0	104	60-125	0			
Bromomethane	22.24	0.29	1.0	20	0	111	30-185	0			
Carbon disulfide	21.69	0.39	1.0	20	0	108	60-165	0			
Carbon tetrachloride	20.7	0.32	1.0	20	0	104	65-140	0			
Chlorobenzene	20.25	0.21	1.0	20	0	101	80-120	0			
Chloroethane	15.4	0.68	1.0	20	0	77	50-140	0			
Chloroform	19.78	0.46	1.0	20	0	98.9	80-130	0			
Chloromethane	18.12	0.68	1.0	20	0	90.6	46-148	0			
cis-1,2-Dichloroethene	21.43	0.38	1.0	20	0	107	75-134	0			
cis-1,3-Dichloropropene	20.77	0.13	1.0	20	0	104	70-130	0			
Dibromochloromethane	19.61	0.2	1.0	20	0	98	60-115	0			
Dichlorodifluoromethane	16.44	0.3	1.0	20	0	82.2	20-120	0			
Ethylbenzene	21.09	0.29	1.0	20	0	105	76-123	0			
Isopropylbenzene	20.21	0.17	1.0	20	0	101	80-127	0			
m,p-Xylene	42.59	0.53	2.0	40	0	106	75-130	0			
Methyl tert-butyl ether	22.98	0.21	1.0	20	0	115	68-129	0			
Methylene chloride	19.8	0.16	5.0	20	0	99	75-140	0			
o-Xylene	20.6	0.19	1.0	20	0	103	76-127	0			
Styrene	21.6	0.19	1.0	20	0	108	83-137	0			
Tetrachloroethene	21.54	0.28	1.0	20	0	108	68-166	0			
Toluene	20.61	0.32	1.0	20	0	103	76-125	0			
trans-1,2-Dichloroethene	20.7	0.48	1.0	20	0	104	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	19.54	0.15	1.0	20	0	97.7	56-132	0
Trichloroethene	20.03	0.33	1.0	20	0	100	84-130	0
Trichlorofluoromethane	19.33	0.24	1.0	20	0	96.6	60-140	0
Vinyl chloride	19.37	0.53	1.0	20	0	96.8	50-136	0
Surr: 1,2-Dichloroethane-d4	*19.84*	0	0	*20*	0	*99.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.67*	0	0	*20*	0	*98.4*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.93*	0	0	*20*	0	*99.6*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805699-01A MS** Units: **µg/L** Analysis Date: **05/16/18 06:01 AM**

Client ID: Run ID: **VMS8_180515A** SeqNo: **5036439** Prep Date: DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	404.8	6.6	20	400	0	101	75-130	0			
1,1,2,2-Tetrachloroethane	444	3.4	20	400	0	111	75-130	0			
1,1,2-Trichloroethane	377.8	4.4	20	400	0	94.4	75-125	0			
1,1-Dichloroethane	393.6	9.6	20	400	0	98.4	68-142	0			
1,1-Dichloroethene	423.2	7.2	20	400	0	106	70-145	0			
1,2,3-Trichlorobenzene	404.2	5.8	20	400	0	101	70-140	0			
1,2,4-Trichlorobenzene	375	5	20	400	0	93.8	70-135	0			
1,2-Dibromo-3-chloropropane	396	8.6	20	400	0	99	60-130	0			
1,2-Dibromoethane	422.2	3.4	20	400	0	106	67-155	0			
1,2-Dichlorobenzene	413	2.4	20	400	0	103	70-130	0			
1,2-Dichloroethane	377.2	2.2	20	400	0	94.3	78-125	0			
1,2-Dichloropropane	375.6	6.8	20	400	0	93.9	75-125	0			
1,3-Dichlorobenzene	398.2	2.6	20	400	0	99.6	75-130	0			
1,4-Dichlorobenzene	406.8	2.6	20	400	0	102	75-130	0			
2-Butanone	372.6	9.4	100	400	0	93.2	55-150	0			
2-Hexanone	428.4	10	100	400	0	107	60-135	0			
4-Methyl-2-pentanone	638.6	10	20	400	0	160	77-178	0			
Acetone	427.8	9.4	200	400	0	107	60-160	0			
Benzene	391	8.4	20	400	0	97.8	85-125	0			
Bromochloromethane	388.2	3	20	400	0	97	72-141	0			
Bromodichloromethane	384.2	4.4	20	400	0	96	75-125	0			
Bromoform	407.8	11	20	400	0	102	60-125	0			
Bromomethane	614.6	5.8	20	400	0	154	30-185	0			
Carbon disulfide	378.2	7.8	20	400	0	94.6	60-165	0			
Carbon tetrachloride	398.8	6.4	20	400	0	99.7	65-140	0			
Chlorobenzene	389.8	4.2	20	400	0	97.4	80-120	0			
Chloroethane	366.6	14	20	400	0	91.6	50-140	0			
Chloroform	376.8	9.2	20	400	0	94.2	80-130	0			
Chloromethane	323.4	14	20	400	0	80.8	46-148	0			
cis-1,2-Dichloroethene	407.2	7.6	20	400	0	102	75-134	0			
cis-1,3-Dichloropropene	382.4	2.6	20	400	0	95.6	70-130	0			
Dibromochloromethane	383.2	4	20	400	0	95.8	60-115	0			
Dichlorodifluoromethane	248.6	6	20	400	0	62.2	20-120	0			
Ethylbenzene	402.8	5.8	20	400	0	101	76-123	0			
Isopropylbenzene	384	3.4	20	400	0	96	80-127	0			
m,p-Xylene	784.6	11	40	800	0	98.1	75-130	0			
Methyl tert-butyl ether	465.8	4.2	20	400	0	116	68-129	0			
Methylene chloride	380	3.2	100	400	10.6	92.4	75-140	0			
o-Xylene	399.8	3.8	20	400	0	100	76-127	0			
Styrene	480.4	3.8	20	400	126.4	88.5	83-137	0			
Tetrachloroethene	403.6	5.6	20	400	0	101	68-166	0			
Toluene	401.6	6.4	20	400	0	100	76-125	0			
trans-1,2-Dichloroethene	388.6	9.6	20	400	0	97.2	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236004a**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,3-Dichloropropene	385.6	3	20	400	0	96.4	56-132	0
Trichloroethene	381.8	6.6	20	400	0	95.4	84-130	0
Trichlorofluoromethane	392.2	4.8	20	400	0	98	60-140	0
Vinyl chloride	341.2	11	20	400	0	85.3	50-136	0
Surr: 1,2-Dichloroethane-d4	*400.6*	0	0	*400*	0	*100*	*75-120*	0
Surr: 4-Bromofluorobenzene	*401.4*	0	0	*400*	0	*100*	*80-110*	0
Surr: Dibromofluoromethane	*405.4*	0	0	*400*	0	*101*	*85-115*	0
Surr: Toluene-d8	*403.6*	0	0	*400*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805699-01A MSD** Units: **µg/L** Analysis Date: **05/16/18 06:17 AM**

Client ID: Run ID: **VMS8_180515A** SeqNo: **5036440** Prep Date: DF: **20**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	446.2	6.6	20	400	0	112	75-130	404.8	9.73	30	
1,1,2,2-Tetrachloroethane	460	3.4	20	400	0	115	75-130	444	3.54	30	
1,1,2-Trichloroethane	392.2	4.4	20	400	0	98	75-125	377.8	3.74	30	
1,1-Dichloroethane	413.8	9.6	20	400	0	103	68-142	393.6	5	30	
1,1-Dichloroethene	460.4	7.2	20	400	0	115	70-145	423.2	8.42	30	
1,2,3-Trichlorobenzene	426	5.8	20	400	0	106	70-140	404.2	5.25	30	
1,2,4-Trichlorobenzene	403	5	20	400	0	101	70-135	375	7.2	30	
1,2-Dibromo-3-chloropropane	413.2	8.6	20	400	0	103	60-130	396	4.25	30	
1,2-Dibromoethane	438.2	3.4	20	400	0	110	67-155	422.2	3.72	30	
1,2-Dichlorobenzene	430	2.4	20	400	0	108	70-130	413	4.03	30	
1,2-Dichloroethane	394.8	2.2	20	400	0	98.7	78-125	377.2	4.56	30	
1,2-Dichloropropane	407.4	6.8	20	400	0	102	75-125	375.6	8.12	30	
1,3-Dichlorobenzene	420.4	2.6	20	400	0	105	75-130	398.2	5.42	30	
1,4-Dichlorobenzene	426	2.6	20	400	0	106	75-130	406.8	4.61	30	
2-Butanone	403	9.4	100	400	0	101	55-150	372.6	7.84	30	
2-Hexanone	456.8	10	100	400	0	114	60-135	428.4	6.42	30	
4-Methyl-2-pentanone	659	10	20	400	0	165	77-178	638.6	3.14	30	
Acetone	431.2	9.4	200	400	0	108	60-160	427.8	0.792	30	
Benzene	416.8	8.4	20	400	0	104	85-125	391	6.39	30	
Bromochloromethane	423.8	3	20	400	0	106	72-141	388.2	8.77	30	
Bromodichloromethane	421.6	4.4	20	400	0	105	75-125	384.2	9.28	30	
Bromoform	438.6	11	20	400	0	110	60-125	407.8	7.28	30	
Bromomethane	909.8	5.8	20	400	0	227	30-185	614.6	38.7	30	SR
Carbon disulfide	431.2	7.8	20	400	0	108	60-165	378.2	13.1	30	
Carbon tetrachloride	423.6	6.4	20	400	0	106	65-140	398.8	6.03	30	
Chlorobenzene	418.6	4.2	20	400	0	105	80-120	389.8	7.13	30	
Chloroethane	379.8	14	20	400	0	95	50-140	366.6	3.54	30	
Chloroform	401.4	9.2	20	400	0	100	80-130	376.8	6.32	30	
Chloromethane	327.6	14	20	400	0	81.9	46-148	323.4	1.29	30	
cis-1,2-Dichloroethene	423	7.6	20	400	0	106	75-134	407.2	3.81	30	
cis-1,3-Dichloropropene	401.2	2.6	20	400	0	100	70-130	382.4	4.8	30	
Dibromochloromethane	403.2	4	20	400	0	101	60-115	383.2	5.09	30	
Dichlorodifluoromethane	266.2	6	20	400	0	66.6	20-120	248.6	6.84	30	
Ethylbenzene	438.4	5.8	20	400	0	110	76-123	402.8	8.46	30	
Isopropylbenzene	415.8	3.4	20	400	0	104	80-127	384	7.95	30	
m,p-Xylene	872.4	11	40	800	0	109	75-130	784.6	10.6	30	
Methyl tert-butyl ether	462.6	4.2	20	400	0	116	68-129	465.8	0.689	30	
Methylene chloride	401.8	3.2	100	400	10.6	97.8	75-140	380	5.58	30	
o-Xylene	423.8	3.8	20	400	0	106	76-127	399.8	5.83	30	
Styrene	483.8	3.8	20	400	126.4	89.4	83-137	480.4	0.705	30	
Tetrachloroethene	435.4	5.6	20	400	0	109	68-166	403.6	7.58	30	
Toluene	425.6	6.4	20	400	0	106	76-125	401.6	5.8	30	
trans-1,2-Dichloroethene	418.2	9.6	20	400	0	105	80-140	388.6	7.34	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236004a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	386.4	3	20	400	0	96.6	56-132	385.6	0.207	30
Trichloroethene	409.4	6.6	20	400	0	102	84-130	381.8	6.98	30
Trichlorofluoromethane	448.8	4.8	20	400	0	112	60-140	392.2	13.5	30
Vinyl chloride	364.4	11	20	400	0	91.1	50-136	341.2	6.58	30
Surr: 1,2-Dichloroethane-d4	*408.8*	0	0	*400*	0	*102*	*75-120*	400.6	*2.03*	*30*
Surr: 4-Bromofluorobenzene	*388.8*	0	0	*400*	0	*97.2*	*80-110*	401.4	*3.19*	*30*
Surr: Dibromofluoromethane	*404.2*	0	0	*400*	0	*101*	*85-115*	405.4	*0.296*	*30*
Surr: Toluene-d8	*402.8*	0	0	*400*	0	*101*	*85-110*	403.6	*0.198*	*30*

The following samples were analyzed in this batch:

1805671-11A	1805671-12A	1805671-13A
1805671-14A	1805671-15A	1805671-16A
1805671-17A	1805671-18A	1805671-19A
1805671-20A	1805671-21A	1805671-22A
1805671-23A	1805671-24A	1805671-25A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180416-R236043** Units: **µg/L** Analysis Date: **05/16/18 06:03 PM**
Client ID: Run ID: **VMS8_180516B** SeqNo: **5093163** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*19.82*	0	0	*20*	0	*99.1*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.2*	0	0	*20*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20.43*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.89*	0	0	*20*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180516-R236043** Units: **µg/L** Analysis Date: **05/16/18 05:07 PM**
Client ID: Run ID: **VMS8_180516B** SeqNo: **5093160** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	22.38	0.22	0.74	20	0	112	73-114	0			
1,1,1-Trichloroethane	22.47	0.36	1.2	20	0	112	75-130	0			
1,1,2,2-Tetrachloroethane	24.95	0.19	0.62	20	0	125	75-130	0			
1,1,2-Trichloroethane	20.85	0.4	1.3	20	0	104	75-125	0			
1,1-Dichloroethane	21.2	0.31	1.0	20	0	106	75-133	0			
1,1-Dichloroethene	21.78	0.28	0.92	20	0	109	70-145	0			
1,1-Dichloropropene	19.66	0.35	1.2	20	0	98.3	75-135	0			
1,2,3-Trichlorobenzene	23.68	0.17	0.55	20	0	118	70-140	0			
1,2,3-Trichloropropane	20.97	0.11	0.40	20	0	105	75-125	0			
1,2,4-Trichlorobenzene	23.85	0.21	0.71	20	0	119	70-135	0			
1,2,4-Trimethylbenzene	22.1	0.37	1.2	20	0	110	75-130	0			
1,2-Dibromo-3-chloropropane	22.67	0.97	3.2	20	0	113	60-130	0			
1,2-Dibromoethane	22.74	0.98	3.3	20	0	114	90-195	0			
1,2-Dichlorobenzene	23.34	0.22	0.73	20	0	117	70-130	0			
1,2-Dichloroethane	20.74	0.17	0.55	20	0	104	78-125	0			
1,2-Dichloropropane	21.34	0.25	0.83	20	0	107	75-125	0			
1,3,5-Trimethylbenzene	22.39	0.29	0.95	20	0	112	75-130	0			
1,3-Dichlorobenzene	23.72	0.29	0.96	20	0	119	75-130	0			
1,3-Dichloropropane	22.41	0.18	0.61	20	0	112	75-125	0			
1,4-Dichlorobenzene	23.7	0.21	0.71	20	0	118	75-130	0			
2,2-Dichloropropane	22.89	0.44	1.5	20	0	114	43-150	0			
2-Butanone	19.12	0.58	2.0	20	0	95.6	55-150	0			
2-Chlorotoluene	22.85	0.32	1.1	20	0	114	84-133	0			
4-Chlorotoluene	22.48	0.28	0.95	20	0	112	80-125	0			
4-Methyl-2-pentanone	32.97	0.11	0.40	20	0	165	77-178	0			
Acetone	17.18	0.92	3.1	20	0	85.9	60-160	0			
Benzene	22.14	0.3	1.0	20	0	111	85-125	0			
Bromobenzene	22.15	0.24	0.80	20	0	111	80-125	0			
Bromochloromethane	20.39	0.2	0.66	20	0	102	72-141	0			
Bromodichloromethane	22.04	0.23	0.78	20	0	110	75-125	0			
Bromoform	23.31	0.77	2.6	20	0	117	60-125	0			
Bromomethane	39.37	0.38	1.3	20	0	197	30-185	0			S
Carbon tetrachloride	21.9	0.31	1.0	20	0	110	65-140	0			
Chlorobenzene	22.11	0.27	0.90	20	0	111	80-120	0			
Chloroethane	13.56	0.29	0.97	20	0	67.8	50-140	0			
Chloroform	20.89	0.26	0.86	20	0	104	80-130	0			
Chloromethane	19.12	0.17	0.57	20	0	95.6	46-148	0			
cis-1,2-Dichloroethene	22.03	0.25	0.85	20	0	110	75-134	0			
cis-1,3-Dichloropropene	23.06	0.39	1.3	20	0	115	70-130	0			
Dibromochloromethane	21.41	0.38	1.2	20	0	107	60-115	0			
Dibromomethane	21.48	0.25	0.83	20	0	107	85-125	0			
Dichlorodifluoromethane	17.36	0.13	0.44	20	0	86.8	20-120	0			
Ethylbenzene	22.39	0.4	1.3	20	0	112	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	24.85	0.24	0.80	20	0	124	70-155	0
Isopropylbenzene	21.68	0.31	1.0	20	0	108	80-127	0
m,p-Xylene	43.99	0.98	3.3	40	0	110	75-130	0
Methyl tert-butyl ether	24.85	0.12	0.40	20	0	124	80-130	0
Methylene chloride	19.53	0.56	1.8	20	0	97.6	75-140	0
Naphthalene	23.42	0.18	0.59	20	0	117	55-160	0
n-Butylbenzene	22.25	0.22	0.73	20	0	111	75-145	0
n-Propylbenzene	22.35	0.24	0.81	20	0	112	83-135	0
o-Xylene	21.94	0.35	1.2	20	0	110	80-125	0
p-Isopropyltoluene	22.19	0.14	0.48	20	0	111	61-164	0
sec-Butylbenzene	21.98	0.29	0.98	20	0	110	80-134	0
Styrene	23.23	0.24	0.79	20	0	116	83-137	0
tert-Butylbenzene	20.86	0.34	1.2	20	0	104	70-130	0
Tetrachloroethene	23.14	0.27	0.91	20	0	116	68-166	0
Toluene	22.4	0.37	1.2	20	0	112	76-125	0
trans-1,2-Dichloroethene	22.39	0.28	0.93	20	0	112	80-140	0
trans-1,3-Dichloropropene	22.14	0.82	2.7	20	0	111	56-132	0
Trichloroethene	21.19	0.3	0.99	20	0	106	84-130	0
Trichlorofluoromethane	18.5	0.2	0.66	20	0	92.5	60-140	0
Vinyl chloride	19.55	0.2	0.68	20	0	97.8	50-136	0
Xylenes, Total	65.93	1.3	4.4	60	0	110	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.59*	0	0	*20*	0	*98*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.7*	0	0	*20*	0	*98.5*	*80-110*	0
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*19.57*	0	0	*20*	0	*97.8*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-20A MS** Units: **µg/L** Analysis Date: **05/16/18 11:53 PM**
Client ID: **MW-115A** Run ID: **VMS8_180516B** SeqNo: **5093209** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1064	11	37	1000	0	106	73-114	0			
1,1,1-Trichloroethane	1093	18	60	1000	0	109	75-130	0			
1,1,2,2-Tetrachloroethane	1170	9.3	31	1000	0	117	75-130	0			
1,1,2-Trichloroethane	1027	20	66	1000	0	103	75-125	0			
1,1-Dichloroethane	1489	15	52	1000	461.5	103	75-133	0			
1,1-Dichloroethene	1380	14	46	1000	223.5	116	70-145	0			
1,1-Dichloropropene	980.5	18	59	1000	0	98	75-135	0			
1,2,3-Trichlorobenzene	1041	8.3	28	1000	0	104	70-140	0			
1,2,3-Trichloropropane	1021	5.5	20	1000	0	102	75-125	0			
1,2,4-Trichlorobenzene	1035	11	36	1000	0	104	70-135	0			
1,2,4-Trimethylbenzene	1052	19	62	1000	0	105	75-130	0			
1,2-Dibromo-3-chloropropane	1004	49	160	1000	0	100	60-130	0			
1,2-Dibromoethane	1116	49	160	1000	0	112	90-195	0			
1,2-Dichlorobenzene	1082	11	36	1000	0	108	70-130	0			
1,2-Dichloroethane	1022	8.3	28	1000	0	102	78-125	0			
1,2-Dichloropropane	1018	12	42	1000	0	102	75-125	0			
1,3,5-Trimethylbenzene	1088	14	48	1000	0	109	75-130	0			
1,3-Dichlorobenzene	1068	14	48	1000	0	107	75-130	0			
1,3-Dichloropropane	1055	9.2	30	1000	0	106	75-125	0			
1,4-Dichlorobenzene	1074	11	36	1000	0	107	75-130	0			
2,2-Dichloropropane	972.5	22	74	1000	0	97.2	43-150	0			
2-Butanone	993.5	29	98	1000	0	99.4	55-150	0			
2-Chlorotoluene	1117	16	54	1000	0	112	84-133	0			
4-Chlorotoluene	1076	14	48	1000	0	108	80-125	0			
4-Methyl-2-pentanone	1648	5.7	20	1000	0	165	77-178	0			
Acetone	967	46	150	1000	0	96.7	60-160	0			
Benzene	1048	15	50	1000	0	105	85-125	0			
Bromobenzene	1074	12	40	1000	0	107	80-125	0			
Bromochloromethane	1074	9.8	33	1000	0	107	72-141	0			
Bromodichloromethane	1012	12	39	1000	0	101	75-125	0			
Bromoform	1108	38	130	1000	0	111	60-125	0			
Bromomethane	2739	19	63	1000	0	274	30-185	0			S
Carbon tetrachloride	1085	16	52	1000	0	108	65-140	0			
Chlorobenzene	1061	14	45	1000	0	106	80-120	0			
Chloroethane	1296	15	48	1000	0	130	50-140	0			
Chloroform	1016	13	43	1000	0	102	80-130	0			
Chloromethane	893.5	8.6	28	1000	0	89.4	46-148	0			
cis-1,2-Dichloroethene	3546	13	42	1000	2386	116	75-134	0			
cis-1,3-Dichloropropene	1016	20	66	1000	0	102	70-130	0			
Dibromochloromethane	1035	19	62	1000	0	104	60-115	0			
Dibromomethane	1004	12	42	1000	0	100	85-125	0			
Dichlorodifluoromethane	1028	6.6	22	1000	0	103	20-120	0			
Ethylbenzene	1080	20	67	1000	0	108	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	1070	12	40	1000	0	107	70-155	0
Isopropylbenzene	1074	16	52	1000	0	107	80-127	0
m,p-Xylene	2150	49	160	2000	0	107	75-130	0
Methyl tert-butyl ether	1172	5.8	20	1000	0	117	80-130	0
Methylene chloride	967.5	28	92	1000	0	96.8	75-140	0
Naphthalene	1052	8.8	30	1000	0	105	55-160	0
n-Butylbenzene	1010	11	36	1000	0	101	75-145	0
n-Propylbenzene	1103	12	40	1000	0	110	83-135	0
o-Xylene	1072	18	59	1000	0	107	80-125	0
p-Isopropyltoluene	1039	7.2	24	1000	0	104	61-164	0
sec-Butylbenzene	1084	15	49	1000	0	108	80-134	0
Styrene	1098	12	40	1000	0	110	83-137	0
tert-Butylbenzene	1048	17	58	1000	0	105	70-130	0
Tetrachloroethene	1142	14	46	1000	0	114	68-166	0
Toluene	1190	18	61	1000	0	119	76-125	0
trans-1,2-Dichloroethene	1108	14	46	1000	53	105	80-140	0
trans-1,3-Dichloropropene	1051	41	140	1000	0	105	56-132	0
Trichloroethene	1124	15	50	1000	125.5	99.9	84-130	0
Trichlorofluoromethane	1193	10	33	1000	0	119	60-140	0
Vinyl chloride	1030	10	34	1000	0	103	50-136	0
Xylenes, Total	3221	66	220	3000	0	107	80-126	0
Surr: 1,2-Dichloroethane-d4	*997.5*	0	0	*1000*	0	*99.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*990*	0	0	*1000*	0	*99*	*80-110*	0
Surr: Dibromofluoromethane	*1008*	0	0	*1000*	0	*101*	*85-115*	0
Surr: Toluene-d8	*1017*	0	0	*1000*	0	*102*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-20A MSD** Units: **µg/L** Analysis Date: **05/17/18 12:09 PM**

Client ID: **MW-115A** Run ID: **VMS8_180516B** SeqNo: **5093210** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1012	11	37	1000	0	101	73-114	1064	5.01	30	
1,1,1-Trichloroethane	1089	18	60	1000	0	109	75-130	1093	0.367	30	
1,1,2,2-Tetrachloroethane	1119	9.3	31	1000	0	112	75-130	1170	4.5	30	
1,1,2-Trichloroethane	959	20	66	1000	0	95.9	75-125	1027	6.85	30	
1,1-Dichloroethane	1457	15	52	1000	461.5	99.6	75-133	1489	2.17	30	
1,1-Dichloroethene	1408	14	46	1000	223.5	118	70-145	1380	2.01	30	
1,1-Dichloropropene	963	18	59	1000	0	96.3	75-135	980.5	1.8	30	
1,2,3-Trichlorobenzene	1048	8.3	28	1000	0	105	70-140	1041	0.67	30	
1,2,3-Trichloropropane	980	5.5	20	1000	0	98	75-125	1021	4.1	30	
1,2,4-Trichlorobenzene	1035	11	36	1000	0	104	70-135	1035	0	30	
1,2,4-Trimethylbenzene	1010	19	62	1000	0	101	75-130	1052	4.03	30	
1,2-Dibromo-3-chloropropane	1014	49	160	1000	0	101	60-130	1004	0.991	30	
1,2-Dibromoethane	1074	49	160	1000	0	107	90-195	1116	3.84	30	
1,2-Dichlorobenzene	1084	11	36	1000	0	108	70-130	1082	0.0923	30	
1,2-Dichloroethane	960	8.3	28	1000	0	96	78-125	1022	6.21	30	
1,2-Dichloropropane	971.5	12	42	1000	0	97.2	75-125	1018	4.72	30	
1,3,5-Trimethylbenzene	1054	14	48	1000	0	105	75-130	1088	3.17	30	
1,3-Dichlorobenzene	1052	14	48	1000	0	105	75-130	1068	1.51	30	
1,3-Dichloropropane	1000	9.2	30	1000	0	100	75-125	1055	5.3	30	
1,4-Dichlorobenzene	1076	11	36	1000	0	108	75-130	1074	0.14	30	
2,2-Dichloropropane	989.5	22	74	1000	0	99	43-150	972.5	1.73	30	
2-Butanone	980.5	29	98	1000	0	98	55-150	993.5	1.32	30	
2-Chlorotoluene	1088	16	54	1000	0	109	84-133	1117	2.68	30	
4-Chlorotoluene	1052	14	48	1000	0	105	80-125	1076	2.26	30	
4-Methyl-2-pentanone	1592	5.7	20	1000	0	159	77-178	1648	3.52	30	
Acetone	986.5	46	150	1000	0	98.6	60-160	967	2	30	
Benzene	1004	15	50	1000	0	100	85-125	1048	4.29	30	
Bromobenzene	1030	12	40	1000	0	103	80-125	1074	4.18	30	
Bromochloromethane	1021	9.8	33	1000	0	102	72-141	1074	5.11	30	
Bromodichloromethane	998.5	12	39	1000	0	99.8	75-125	1012	1.39	30	
Bromoform	1054	38	130	1000	0	105	60-125	1108	5.09	30	
Bromomethane	2638	19	63	1000	0	264	30-185	2739	3.76	30	S
Carbon tetrachloride	1058	16	52	1000	0	106	65-140	1085	2.57	30	
Chlorobenzene	1035	14	45	1000	0	104	80-120	1061	2.48	30	
Chloroethane	1264	15	48	1000	0	126	50-140	1296	2.5	30	
Chloroform	1012	13	43	1000	0	101	80-130	1016	0.345	30	
Chloromethane	903	8.6	28	1000	0	90.3	46-148	893.5	1.06	30	
cis-1,2-Dichloroethene	3514	13	42	1000	2386	113	75-134	3546	0.878	30	
cis-1,3-Dichloropropene	986.5	20	66	1000	0	98.6	70-130	1016	2.95	30	
Dibromochloromethane	992	19	62	1000	0	99.2	60-115	1035	4.24	30	
Dibromomethane	964.5	12	42	1000	0	96.4	85-125	1004	3.96	30	
Dichlorodifluoromethane	1058	6.6	22	1000	0	106	20-120	1028	2.83	30	
Ethylbenzene	1067	20	67	1000	0	107	76-123	1080	1.21	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	1119	12	40	1000	0	112	70-155	1070	4.43	30
Isopropylbenzene	1042	16	52	1000	0	104	80-127	1074	2.98	30
m,p-Xylene	2144	49	160	2000	0	107	75-130	2150	0.28	30
Methyl tert-butyl ether	1146	5.8	20	1000	0	115	80-130	1172	2.2	30
Methylene chloride	962	28	92	1000	0	96.2	75-140	967.5	0.57	30
Naphthalene	1035	8.8	30	1000	0	104	55-160	1052	1.63	30
n-Butylbenzene	1077	11	36	1000	0	108	75-145	1010	6.37	30
n-Propylbenzene	1092	12	40	1000	0	109	83-135	1103	1.05	30
o-Xylene	1058	18	59	1000	0	106	80-125	1072	1.22	30
p-Isopropyltoluene	1067	7.2	24	1000	0	107	61-164	1039	2.66	30
sec-Butylbenzene	1078	15	49	1000	0	108	80-134	1084	0.509	30
Styrene	1080	12	40	1000	0	108	83-137	1098	1.65	30
tert-Butylbenzene	1009	17	58	1000	0	101	70-130	1048	3.79	30
Tetrachloroethene	1140	14	46	1000	0	114	68-166	1142	0.175	30
Toluene	1156	18	61	1000	0	116	76-125	1190	2.81	30
trans-1,2-Dichloroethene	1128	14	46	1000	53	108	80-140	1108	1.88	30
trans-1,3-Dichloropropene	975	41	140	1000	0	97.5	56-132	1051	7.5	30
Trichloroethene	1096	15	50	1000	125.5	97	84-130	1124	2.61	30
Trichlorofluoromethane	1181	10	33	1000	0	118	60-140	1193	1.01	30
Vinyl chloride	1024	10	34	1000	0	102	50-136	1030	0.633	30
Xylenes, Total	3202	66	220	3000	0	107	80-126	3221	0.592	30
Surr: 1,2-Dichloroethane-d4	*997*	0	0	*1000*	0	*99.7*	*75-120*	997.5	*0.0501*	*30*
Surr: 4-Bromofluorobenzene	*992.5*	0	0	*1000*	0	*99.2*	*80-110*	990	*0.252*	*30*
Surr: Dibromofluoromethane	*1006*	0	0	*1000*	0	*101*	*85-115*	1008	*0.0993*	*30*
Surr: Toluene-d8	*1006*	0	0	*1000*	0	*101*	*85-110*	1017	*1.14*	*30*

The following samples were analyzed in this batch:

1805671-01A	1805671-02A	1805671-03A
1805671-04A	1805671-05A	1805671-06A
1805671-07A	1805671-08A	1805671-09A
1805671-10A	1805671-19A	1805671-20A
1805671-21A	1805671-23A	1805671-26A
1805671-27A		

QC BATCH REPORT

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180416-R236043a** Units: **µg/L** Analysis Date: **05/16/18 06:03 PM**
Client ID: Run ID: **VMS8_180516B** SeqNo: **5037768** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*19.82*	0	0	*20*	0	*99.1*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.2*	0	0	*20*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20.43*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.89*	0	0	*20*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180516-R236043a** Units: **µg/L** Analysis Date: **05/16/18 05:07 PM**
Client ID: Run ID: **VMS8_180516B** SeqNo: **5037767** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.47	0.33	1.0	20	0	112	75-130	0			
1,1,2,2-Tetrachloroethane	24.95	0.17	1.0	20	0	125	75-130	0			
1,1,2-Trichloroethane	20.85	0.22	1.0	20	0	104	75-125	0			
1,1-Dichloroethane	21.2	0.48	1.0	20	0	106	68-142	0			
1,1-Dichloroethene	21.78	0.36	1.0	20	0	109	70-145	0			
1,2,3-Trichlorobenzene	23.68	0.29	1.0	20	0	118	70-140	0			
1,2,4-Trichlorobenzene	23.85	0.25	1.0	20	0	119	70-135	0			
1,2-Dibromo-3-chloropropane	22.67	0.43	1.0	20	0	113	60-130	0			
1,2-Dibromoethane	22.74	0.17	1.0	20	0	114	67-155	0			
1,2-Dichlorobenzene	23.34	0.12	1.0	20	0	117	70-130	0			
1,2-Dichloroethane	20.74	0.11	1.0	20	0	104	78-125	0			
1,2-Dichloropropane	21.34	0.34	1.0	20	0	107	75-125	0			
1,3-Dichlorobenzene	23.72	0.13	1.0	20	0	119	75-130	0			
1,4-Dichlorobenzene	23.7	0.13	1.0	20	0	118	75-130	0			
2-Butanone	19.12	0.47	5.0	20	0	95.6	55-150	0			
2-Hexanone	21.4	0.5	5.0	20	0	107	60-135	0			
4-Methyl-2-pentanone	32.97	0.52	1.0	20	0	165	77-178	0			
Acetone	17.18	0.47	10	20	0	85.9	60-160	0			
Benzene	22.14	0.42	1.0	20	0	111	85-125	0			
Bromochloromethane	20.39	0.15	1.0	20	0	102	72-141	0			
Bromodichloromethane	22.04	0.22	1.0	20	0	110	75-125	0			
Bromoform	23.31	0.56	1.0	20	0	117	60-125	0			
Bromomethane	39.37	0.29	1.0	20	0	197	30-185	0			S
Carbon disulfide	21.92	0.39	1.0	20	0	110	60-165	0			
Carbon tetrachloride	21.9	0.32	1.0	20	0	110	65-140	0			
Chlorobenzene	22.11	0.21	1.0	20	0	111	80-120	0			
Chloroethane	13.56	0.68	1.0	20	0	67.8	50-140	0			
Chloroform	20.89	0.46	1.0	20	0	104	80-130	0			
Chloromethane	19.12	0.68	1.0	20	0	95.6	46-148	0			
cis-1,2-Dichloroethene	22.03	0.38	1.0	20	0	110	75-134	0			
cis-1,3-Dichloropropene	23.06	0.13	1.0	20	0	115	70-130	0			
Dibromochloromethane	21.41	0.2	1.0	20	0	107	60-115	0			
Dichlorodifluoromethane	17.36	0.3	1.0	20	0	86.8	20-120	0			
Ethylbenzene	22.39	0.29	1.0	20	0	112	76-123	0			
Isopropylbenzene	21.68	0.17	1.0	20	0	108	80-127	0			
m,p-Xylene	43.99	0.53	2.0	40	0	110	75-130	0			
Methyl tert-butyl ether	24.85	0.21	1.0	20	0	124	68-129	0			
Methylene chloride	19.53	0.16	5.0	20	0	97.6	75-140	0			
o-Xylene	21.94	0.19	1.0	20	0	110	76-127	0			
Styrene	23.23	0.19	1.0	20	0	116	83-137	0			
Tetrachloroethene	23.14	0.28	1.0	20	0	116	68-166	0			
Toluene	22.4	0.32	1.0	20	0	112	76-125	0			
trans-1,2-Dichloroethene	22.39	0.48	1.0	20	0	112	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043a**	Instrument ID **VMS8**				Method: **SW8260C**			
trans-1,3-Dichloropropene	22.14	0.15	1.0	20	0	111	56-132	0
Trichloroethene	21.19	0.33	1.0	20	0	106	84-130	0
Trichlorofluoromethane	18.5	0.24	1.0	20	0	92.5	60-140	0
Vinyl chloride	19.55	0.53	1.0	20	0	97.8	50-136	0
Surr: 1,2-Dichloroethane-d4	*19.59*	0	0	*20*	0	*98*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.7*	0	0	*20*	0	*98.5*	*80-110*	0
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*19.57*	0	0	*20*	0	*97.8*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-20A MS** Units: **µg/L** Analysis Date: **05/16/18 11:53 PM**

Client ID: **MW-115A** Run ID: **VMS8_180516B** SeqNo: **5037788** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1093	16	50	1000	0	109	75-130	0			
1,1,2,2-Tetrachloroethane	1170	8.5	50	1000	0	117	75-130	0			
1,1,2-Trichloroethane	1027	11	50	1000	0	103	75-125	0			
1,1-Dichloroethane	1489	24	50	1000	461.5	103	68-142	0			
1,1-Dichloroethene	1380	18	50	1000	223.5	116	70-145	0			
1,2,3-Trichlorobenzene	1041	14	50	1000	0	104	70-140	0			
1,2,4-Trichlorobenzene	1035	12	50	1000	0	104	70-135	0			
1,2-Dibromo-3-chloropropane	1004	22	50	1000	0	100	60-130	0			
1,2-Dibromoethane	1116	8.5	50	1000	0	112	67-155	0			
1,2-Dichlorobenzene	1082	6	50	1000	0	108	70-130	0			
1,2-Dichloroethane	1022	5.5	50	1000	0	102	78-125	0			
1,2-Dichloropropane	1018	17	50	1000	0	102	75-125	0			
1,3-Dichlorobenzene	1068	6.5	50	1000	0	107	75-130	0			
1,4-Dichlorobenzene	1074	6.5	50	1000	0	107	75-130	0			
2-Butanone	993.5	24	250	1000	0	99.4	55-150	0			
2-Hexanone	1092	25	250	1000	0	109	60-135	0			
4-Methyl-2-pentanone	1648	26	50	1000	0	165	77-178	0			
Acetone	967	24	500	1000	0	96.7	60-160	0			
Benzene	1048	21	50	1000	0	105	85-125	0			
Bromochloromethane	1074	7.5	50	1000	0	107	72-141	0			
Bromodichloromethane	1012	11	50	1000	0	101	75-125	0			
Bromoform	1108	28	50	1000	0	111	60-125	0			
Bromomethane	2739	14	50	1000	0	274	30-185	0			S
Carbon disulfide	1126	20	50	1000	0	113	60-165	0			
Carbon tetrachloride	1085	16	50	1000	0	108	65-140	0			
Chlorobenzene	1061	10	50	1000	0	106	80-120	0			
Chloroethane	1296	34	50	1000	0	130	50-140	0			
Chloroform	1016	23	50	1000	0	102	80-130	0			
Chloromethane	893.5	34	50	1000	0	89.4	46-148	0			
cis-1,2-Dichloroethene	3546	19	50	1000	2386	116	75-134	0			
cis-1,3-Dichloropropene	1016	6.5	50	1000	0	102	70-130	0			
Dibromochloromethane	1035	10	50	1000	0	104	60-115	0			
Dichlorodifluoromethane	1028	15	50	1000	0	103	20-120	0			
Ethylbenzene	1080	14	50	1000	0	108	76-123	0			
Isopropylbenzene	1074	8.5	50	1000	0	107	80-127	0			
m,p-Xylene	2150	26	100	2000	0	107	75-130	0			
Methyl tert-butyl ether	1172	10	50	1000	0	117	68-129	0			
Methylene chloride	967.5	8	250	1000	0	96.8	75-140	0			
o-Xylene	1072	9.5	50	1000	0	107	76-127	0			
Styrene	1098	9.5	50	1000	0	110	83-137	0			
Tetrachloroethene	1142	14	50	1000	0	114	68-166	0			
Toluene	1190	16	50	1000	0	119	76-125	0			
trans-1,2-Dichloroethene	1108	24	50	1000	53	105	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	1051	7.5	50	1000	0	105	56-132	0
Trichloroethene	1124	16	50	1000	125.5	99.9	84-130	0
Trichlorofluoromethane	1193	12	50	1000	0	119	60-140	0
Vinyl chloride	1030	26	50	1000	0	103	50-136	0
Surr: 1,2-Dichloroethane-d4	*997.5*	0	0	*1000*	0	*99.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*990*	0	0	*1000*	0	*99*	*80-110*	0
Surr: Dibromofluoromethane	*1008*	0	0	*1000*	0	*101*	*85-115*	0
Surr: Toluene-d8	*1017*	0	0	*1000*	0	*102*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-20A MSD** Units: **µg/L** Analysis Date: **05/17/18 12:09 PM**

Client ID: **MW-115A** Run ID: **VMS8_180516B** SeqNo: **5037789** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1089	16	50	1000	0	109	75-130	1093	0.367	30	
1,1,2,2-Tetrachloroethane	1119	8.5	50	1000	0	112	75-130	1170	4.5	30	
1,1,2-Trichloroethane	959	11	50	1000	0	95.9	75-125	1027	6.85	30	
1,1-Dichloroethane	1457	24	50	1000	461.5	99.6	68-142	1489	2.17	30	
1,1-Dichloroethene	1408	18	50	1000	223.5	118	70-145	1380	2.01	30	
1,2,3-Trichlorobenzene	1048	14	50	1000	0	105	70-140	1041	0.67	30	
1,2,4-Trichlorobenzene	1035	12	50	1000	0	104	70-135	1035	0	30	
1,2-Dibromo-3-chloropropane	1014	22	50	1000	0	101	60-130	1004	0.991	30	
1,2-Dibromoethane	1074	8.5	50	1000	0	107	67-155	1116	3.84	30	
1,2-Dichlorobenzene	1084	6	50	1000	0	108	70-130	1082	0.0923	30	
1,2-Dichloroethane	960	5.5	50	1000	0	96	78-125	1022	6.21	30	
1,2-Dichloropropane	971.5	17	50	1000	0	97.2	75-125	1018	4.72	30	
1,3-Dichlorobenzene	1052	6.5	50	1000	0	105	75-130	1068	1.51	30	
1,4-Dichlorobenzene	1076	6.5	50	1000	0	108	75-130	1074	0.14	30	
2-Butanone	980.5	24	250	1000	0	98	55-150	993.5	1.32	30	
2-Hexanone	1026	25	250	1000	0	103	60-135	1092	6.19	30	
4-Methyl-2-pentanone	1592	26	50	1000	0	159	77-178	1648	3.52	30	
Acetone	986.5	24	500	1000	0	98.6	60-160	967	2	30	
Benzene	1004	21	50	1000	0	100	85-125	1048	4.29	30	
Bromochloromethane	1021	7.5	50	1000	0	102	72-141	1074	5.11	30	
Bromodichloromethane	998.5	11	50	1000	0	99.8	75-125	1012	1.39	30	
Bromoform	1054	28	50	1000	0	105	60-125	1108	5.09	30	
Bromomethane	2638	14	50	1000	0	264	30-185	2739	3.76	30	S
Carbon disulfide	1149	20	50	1000	0	115	60-165	1126	2.02	30	
Carbon tetrachloride	1058	16	50	1000	0	106	65-140	1085	2.57	30	
Chlorobenzene	1035	10	50	1000	0	104	80-120	1061	2.48	30	
Chloroethane	1264	34	50	1000	0	126	50-140	1296	2.5	30	
Chloroform	1012	23	50	1000	0	101	80-130	1016	0.345	30	
Chloromethane	903	34	50	1000	0	90.3	46-148	893.5	1.06	30	
cis-1,2-Dichloroethene	3514	19	50	1000	2386	113	75-134	3546	0.878	30	
cis-1,3-Dichloropropene	986.5	6.5	50	1000	0	98.6	70-130	1016	2.95	30	
Dibromochloromethane	992	10	50	1000	0	99.2	60-115	1035	4.24	30	
Dichlorodifluoromethane	1058	15	50	1000	0	106	20-120	1028	2.83	30	
Ethylbenzene	1067	14	50	1000	0	107	76-123	1080	1.21	30	
Isopropylbenzene	1042	8.5	50	1000	0	104	80-127	1074	2.98	30	
m,p-Xylene	2144	26	100	2000	0	107	75-130	2150	0.28	30	
Methyl tert-butyl ether	1146	10	50	1000	0	115	68-129	1172	2.2	30	
Methylene chloride	962	8	250	1000	0	96.2	75-140	967.5	0.57	30	
o-Xylene	1058	9.5	50	1000	0	106	76-127	1072	1.22	30	
Styrene	1080	9.5	50	1000	0	108	83-137	1098	1.65	30	
Tetrachloroethene	1140	14	50	1000	0	114	68-166	1142	0.175	30	
Toluene	1156	16	50	1000	0	116	76-125	1190	2.81	30	
trans-1,2-Dichloroethene	1128	24	50	1000	53	108	80-140	1108	1.88	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236043a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	975	7.5	50	1000	0	97.5	56-132	1051	7.5	30
Trichloroethene	1096	16	50	1000	125.5	97	84-130	1124	2.61	30
Trichlorofluoromethane	1181	12	50	1000	0	118	60-140	1193	1.01	30
Vinyl chloride	1024	26	50	1000	0	102	50-136	1030	0.633	30
Surr: 1,2-Dichloroethane-d4	*997*	0	0	*1000*	0	*99.7*	*75-120*	997.5	*0.0501*	*30*
Surr: 4-Bromofluorobenzene	*992.5*	0	0	*1000*	0	*99.2*	*80-110*	990	*0.252*	*30*
Surr: Dibromofluoromethane	*1006*	0	0	*1000*	0	*101*	*85-115*	1008	*0.0993*	*30*
Surr: Toluene-d8	*1006*	0	0	*1000*	0	*101*	*85-110*	1017	*1.14*	*30*

The following samples were analyzed in this batch:

1805671-01A	1805671-02A	1805671-03A
1805671-04A	1805671-05A	1805671-06A
1805671-07A	1805671-08A	1805671-09A
1805671-10A	1805671-19A	1805671-20A
1805671-21A	1805671-23A	1805671-26A
1805671-27A		

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180418-R236211** Units: **µg/L** Analysis Date: **05/18/18 08:03 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5093117** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*19.08*	0	0	*20*	0	*95.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.95*	0	0	*20*	0	*94.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.95*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*19.58*	0	0	*20*	0	*97.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180518-R236211** Units: **µg/L** Analysis Date: **05/18/18 07:15 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5093116** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.68	0.22	0.74	20	0	108	73-114	0			
1,1,1-Trichloroethane	21.23	0.36	1.2	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	23.35	0.19	0.62	20	0	117	75-130	0			
1,1,2-Trichloroethane	20.12	0.4	1.3	20	0	101	75-125	0			
1,1-Dichloroethane	18.99	0.31	1.0	20	0	95	75-133	0			
1,1-Dichloroethene	20.33	0.28	0.92	20	0	102	70-145	0			
1,1-Dichloropropene	19.67	0.35	1.2	20	0	98.4	75-135	0			
1,2,3-Trichlorobenzene	22.08	0.17	0.55	20	0	110	70-140	0			
1,2,3-Trichloropropane	20.66	0.11	0.40	20	0	103	75-125	0			
1,2,4-Trichlorobenzene	22.8	0.21	0.71	20	0	114	70-135	0			
1,2,4-Trimethylbenzene	21.09	0.37	1.2	20	0	105	75-130	0			
1,2-Dibromo-3-chloropropane	20.19	0.97	3.2	20	0	101	60-130	0			
1,2-Dibromoethane	21.51	0.98	3.3	20	0	108	90-195	0			
1,2-Dichlorobenzene	22.41	0.22	0.73	20	0	112	70-130	0			
1,2-Dichloroethane	19.1	0.17	0.55	20	0	95.5	78-125	0			
1,2-Dichloropropane	20.25	0.25	0.83	20	0	101	75-125	0			
1,3,5-Trimethylbenzene	21.71	0.29	0.95	20	0	109	75-130	0			
1,3-Dichlorobenzene	22.65	0.29	0.96	20	0	113	75-130	0			
1,3-Dichloropropane	20.37	0.18	0.61	20	0	102	75-125	0			
1,4-Dichlorobenzene	22.49	0.21	0.71	20	0	112	75-130	0			
2,2-Dichloropropane	20.09	0.44	1.5	20	0	100	43-150	0			
2-Butanone	12.92	0.58	2.0	20	0	64.6	55-150	0			
2-Chlorotoluene	21.6	0.32	1.1	20	0	108	84-133	0			
4-Chlorotoluene	21.5	0.28	0.95	20	0	108	80-125	0			
4-Methyl-2-pentanone	29.04	0.11	0.40	20	0	145	77-178	0			
Acetone	16.39	0.92	3.1	20	0	82	60-160	0			
Benzene	21.08	0.3	1.0	20	0	105	85-125	0			
Bromobenzene	20.96	0.24	0.80	20	0	105	80-125	0			
Bromochloromethane	18.59	0.2	0.66	20	0	93	72-141	0			
Bromodichloromethane	20.78	0.23	0.78	20	0	104	75-125	0			
Bromoform	22.52	0.77	2.6	20	0	113	60-125	0			
Bromomethane	35.05	0.38	1.3	20	0	175	30-185	0			
Carbon tetrachloride	21.72	0.31	1.0	20	0	109	65-140	0			
Chlorobenzene	21.67	0.27	0.90	20	0	108	80-120	0			
Chloroethane	13.57	0.29	0.97	20	0	67.8	50-140	0			
Chloroform	19	0.26	0.86	20	0	95	80-130	0			
Chloromethane	14.88	0.17	0.57	20	0	74.4	46-148	0			
cis-1,2-Dichloroethene	20.3	0.25	0.85	20	0	102	75-134	0			
cis-1,3-Dichloropropene	20.65	0.39	1.3	20	0	103	70-130	0			
Dibromochloromethane	21	0.38	1.2	20	0	105	60-115	0			
Dibromomethane	20.49	0.25	0.83	20	0	102	85-125	0			
Dichlorodifluoromethane	16.63	0.13	0.44	20	0	83.2	20-120	0			
Ethylbenzene	21.45	0.4	1.3	20	0	107	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	22.44	0.24	0.80	20	0	112	70-155	0
Isopropylbenzene	20.98	0.31	1.0	20	0	105	80-127	0
m,p-Xylene	42.25	0.98	3.3	40	0	106	75-130	0
Methyl tert-butyl ether	20.53	0.12	0.40	20	0	103	80-130	0
Methylene chloride	18.21	0.56	1.8	20	0	91	75-140	0
Naphthalene	20.5	0.18	0.59	20	0	102	55-160	0
n-Butylbenzene	20.96	0.22	0.73	20	0	105	75-145	0
n-Propylbenzene	21.36	0.24	0.81	20	0	107	83-135	0
o-Xylene	21.12	0.35	1.2	20	0	106	80-125	0
p-Isopropyltoluene	21.19	0.14	0.48	20	0	106	61-164	0
sec-Butylbenzene	21.38	0.29	0.98	20	0	107	80-134	0
Styrene	22.05	0.24	0.79	20	0	110	83-137	0
tert-Butylbenzene	22.82	0.34	1.2	20	0	114	70-130	0
Tetrachloroethene	23.9	0.27	0.91	20	0	120	68-166	0
Toluene	21.73	0.37	1.2	20	0	109	76-125	0
trans-1,2-Dichloroethene	19.77	0.28	0.93	20	0	98.8	80-140	0
trans-1,3-Dichloropropene	20.02	0.82	2.7	20	0	100	56-132	0
Trichloroethene	20.82	0.3	0.99	20	0	104	84-130	0
Trichlorofluoromethane	16.5	0.2	0.66	20	0	82.5	60-140	0
Vinyl chloride	16.63	0.2	0.68	20	0	83.2	50-136	0
Xylenes, Total	63.37	1.3	4.4	60	0	106	80-126	0
Surr: 1,2-Dichloroethane-d4	*18.83*	0	0	*20*	0	*94.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.95*	0	0	*20*	0	*99.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.2*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*20.2*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-19A MS** Units: **µg/L** Analysis Date: **05/19/18 01:55 AM**
Client ID: **MW-115** Run ID: **VMS8_180518B** SeqNo: **5093121** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	917	11	37	1000	0	91.7	73-114	0			
1,1,1-Trichloroethane	895	18	60	1000	0	89.5	75-130	0			
1,1,2,2-Tetrachloroethane	1058	9.3	31	1000	0	106	75-130	0			
1,1,2-Trichloroethane	889.5	20	66	1000	0	89	75-125	0			
1,1-Dichloroethane	931	15	52	1000	70	86.1	75-133	0			
1,1-Dichloroethene	922	14	46	1000	0	92.2	70-145	0			
1,1-Dichloropropene	797.5	18	59	1000	0	79.8	75-135	0			
1,2,3-Trichlorobenzene	918	8.3	28	1000	0	91.8	70-140	0			
1,2,3-Trichloropropane	938	5.5	20	1000	0	93.8	75-125	0			
1,2,4-Trichlorobenzene	845.5	11	36	1000	0	84.6	70-135	0			
1,2,4-Trimethylbenzene	817.5	19	62	1000	0	81.8	75-130	0			
1,2-Dibromo-3-chloropropane	926	49	160	1000	0	92.6	60-130	0			
1,2-Dibromoethane	1004	49	160	1000	0	100	90-195	0			
1,2-Dichlorobenzene	980.5	11	36	1000	0	98	70-130	0			
1,2-Dichloroethane	982.5	8.3	28	1000	62.5	92	78-125	0			
1,2-Dichloropropane	887.5	12	42	1000	0	88.8	75-125	0			
1,3,5-Trimethylbenzene	860	14	48	1000	0	86	75-130	0			
1,3-Dichlorobenzene	928	14	48	1000	0	92.8	75-130	0			
1,3-Dichloropropane	912.5	9.2	30	1000	0	91.2	75-125	0			
1,4-Dichlorobenzene	974.5	11	36	1000	0	97.4	75-130	0			
2,2-Dichloropropane	732.5	22	74	1000	0	73.2	43-150	0			
2-Butanone	897.5	29	98	1000	0	89.8	55-150	0			
2-Chlorotoluene	912	16	54	1000	0	91.2	84-133	0			
4-Chlorotoluene	882.5	14	48	1000	0	88.2	80-125	0			
4-Methyl-2-pentanone	1436	5.7	20	1000	0	144	77-178	0			
Acetone	921	46	150	1000	0	92.1	60-160	0			
Benzene	926	15	50	1000	0	92.6	85-125	0			
Bromobenzene	894.5	12	40	1000	0	89.4	80-125	0			
Bromochloromethane	972.5	9.8	33	1000	0	97.2	72-141	0			
Bromodichloromethane	938	12	39	1000	0	93.8	75-125	0			
Bromoform	983	38	130	1000	0	98.3	60-125	0			
Bromomethane	2250	19	63	1000	0	225	30-185	0			S
Carbon tetrachloride	857	16	52	1000	0	85.7	65-140	0			
Chlorobenzene	901	14	45	1000	0	90.1	80-120	0			
Chloroethane	1790	15	48	1000	1144	64.7	50-140	0			
Chloroform	863	13	43	1000	0	86.3	80-130	0			
Chloromethane	665	8.6	28	1000	0	66.5	46-148	0			
cis-1,2-Dichloroethene	911.5	13	42	1000	0	91.2	75-134	0			
cis-1,3-Dichloropropene	930.5	20	66	1000	0	93	70-130	0			
Dibromochloromethane	903	19	62	1000	0	90.3	60-115	0			
Dibromomethane	978	12	42	1000	0	97.8	85-125	0			
Dichlorodifluoromethane	794.5	6.6	22	1000	0	79.4	20-120	0			
Ethylbenzene	874.5	20	67	1000	0	87.4	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	840.5	12	40	1000	0	84	70-155	0
Isopropylbenzene	835.5	16	52	1000	0	83.6	80-127	0
m,p-Xylene	1719	49	160	2000	0	86	75-130	0
Methyl tert-butyl ether	1024	5.8	20	1000	0	102	80-130	0
Methylene chloride	883	28	92	1000	0	88.3	75-140	0
Naphthalene	889.5	8.8	30	1000	0	89	55-160	0
n-Butylbenzene	821.5	11	36	1000	0	82.2	75-145	0
n-Propylbenzene	849.5	12	40	1000	0	85	83-135	0
o-Xylene	895.5	18	59	1000	0	89.6	80-125	0
p-Isopropyltoluene	849	7.2	24	1000	0	84.9	61-164	0
sec-Butylbenzene	846	15	49	1000	0	84.6	80-134	0
Styrene	934.5	12	40	1000	0	93.4	83-137	0
tert-Butylbenzene	908	17	58	1000	0	90.8	70-130	0
Tetrachloroethene	910	14	46	1000	0	91	68-166	0
Toluene	957.5	18	61	1000	77.5	88	76-125	0
trans-1,2-Dichloroethene	949.5	14	46	1000	95	85.4	80-140	0
trans-1,3-Dichloropropene	860.5	41	140	1000	0	86	56-132	0
Trichloroethene	891.5	15	50	1000	0	89.2	84-130	0
Trichlorofluoromethane	899.5	10	33	1000	0	90	60-140	0
Vinyl chloride	733.5	10	34	1000	0	73.4	50-136	0
Xylenes, Total	2614	66	220	3000	0	87.2	80-126	0
Surr: 1,2-Dichloroethane-d4	*1014*	0	0	*1000*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*945.5*	0	0	*1000*	0	*94.6*	*80-110*	0
Surr: Dibromofluoromethane	*1004*	0	0	*1000*	0	*100*	*85-115*	0
Surr: Toluene-d8	*969*	0	0	*1000*	0	*96.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-19A MSD** Units: **µg/L** Analysis Date: **05/19/18 02:11 AM**
Client ID: **MW-115** Run ID: **VMS8_180518B** SeqNo: **5093122** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1024	11	37	1000	0	102	73-114	917	11.1	30	
1,1,1-Trichloroethane	1084	18	60	1000	0	108	75-130	895	19.1	30	
1,1,2,2-Tetrachloroethane	1122	9.3	31	1000	0	112	75-130	1058	5.92	30	
1,1,2-Trichloroethane	954.5	20	66	1000	0	95.4	75-125	889.5	7.05	30	
1,1-Dichloroethane	1044	15	52	1000	70	97.4	75-133	931	11.4	30	
1,1-Dichloroethene	1118	14	46	1000	0	112	70-145	922	19.2	30	
1,1-Dichloropropene	966.5	18	59	1000	0	96.6	75-135	797.5	19.2	30	
1,2,3-Trichlorobenzene	993.5	8.3	28	1000	0	99.4	70-140	918	7.9	30	
1,2,3-Trichloropropane	973.5	5.5	20	1000	0	97.4	75-125	938	3.71	30	
1,2,4-Trichlorobenzene	965	11	36	1000	0	96.5	70-135	845.5	13.2	30	
1,2,4-Trimethylbenzene	988.5	19	62	1000	0	98.8	75-130	817.5	18.9	30	
1,2-Dibromo-3-chloropropane	924.5	49	160	1000	0	92.4	60-130	926	0.162	30	
1,2-Dibromoethane	1040	49	160	1000	0	104	90-195	1004	3.57	30	
1,2-Dichlorobenzene	1066	11	36	1000	0	107	70-130	980.5	8.4	30	
1,2-Dichloroethane	1016	8.3	28	1000	62.5	95.4	78-125	982.5	3.35	30	
1,2-Dichloropropane	952.5	12	42	1000	0	95.2	75-125	887.5	7.07	30	
1,3,5-Trimethylbenzene	1058	14	48	1000	0	106	75-130	860	20.6	30	
1,3-Dichlorobenzene	1057	14	48	1000	0	106	75-130	928	13	30	
1,3-Dichloropropane	1000	9.2	30	1000	0	100	75-125	912.5	9.2	30	
1,4-Dichlorobenzene	1075	11	36	1000	0	108	75-130	974.5	9.81	30	
2,2-Dichloropropane	866.5	22	74	1000	0	86.6	43-150	732.5	16.8	30	
2-Butanone	858.5	29	98	1000	0	85.8	55-150	897.5	4.44	30	
2-Chlorotoluene	1056	16	54	1000	0	106	84-133	912	14.6	30	
4-Chlorotoluene	1031	14	48	1000	0	103	80-125	882.5	15.5	30	
4-Methyl-2-pentanone	1452	5.7	20	1000	0	145	77-178	1436	1.18	30	
Acetone	935.5	46	150	1000	0	93.6	60-160	921	1.56	30	
Benzene	1044	15	50	1000	0	104	85-125	926	12	30	
Bromobenzene	979.5	12	40	1000	0	98	80-125	894.5	9.07	30	
Bromochloromethane	1016	9.8	33	1000	0	102	72-141	972.5	4.33	30	
Bromodichloromethane	977.5	12	39	1000	0	97.8	75-125	938	4.12	30	
Bromoform	1039	38	130	1000	0	104	60-125	983	5.54	30	
Bromomethane	2541	19	63	1000	0	254	30-185	2250	12.1	30	S
Carbon tetrachloride	1066	16	52	1000	0	107	65-140	857	21.8	30	
Chlorobenzene	1034	14	45	1000	0	103	80-120	901	13.7	30	
Chloroethane	1972	15	48	1000	1144	82.8	50-140	1790	9.62	30	
Chloroform	969.5	13	43	1000	0	97	80-130	863	11.6	30	
Chloromethane	775.5	8.6	28	1000	0	77.6	46-148	665	15.3	30	
cis-1,2-Dichloroethene	1006	13	42	1000	0	101	75-134	911.5	9.86	30	
cis-1,3-Dichloropropene	957.5	20	66	1000	0	95.8	70-130	930.5	2.86	30	
Dibromochloromethane	962	19	62	1000	0	96.2	60-115	903	6.33	30	
Dibromomethane	986	12	42	1000	0	98.6	85-125	978	0.815	30	
Dichlorodifluoromethane	968.5	6.6	22	1000	0	96.8	20-120	794.5	19.7	30	
Ethylbenzene	1058	20	67	1000	0	106	76-123	874.5	19	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	1034	12	40	1000	0	103	70-155	840.5	20.6	30
Isopropylbenzene	1044	16	52	1000	0	104	80-127	835.5	22.2	30
m,p-Xylene	2103	49	160	2000	0	105	75-130	1719	20.1	30
Methyl tert-butyl ether	1050	5.8	20	1000	0	105	80-130	1024	2.6	30
Methylene chloride	945	28	92	1000	0	94.5	75-140	883	6.78	30
Naphthalene	908.5	8.8	30	1000	0	90.8	55-160	889.5	2.11	30
n-Butylbenzene	978.5	11	36	1000	0	97.8	75-145	821.5	17.4	30
n-Propylbenzene	1037	12	40	1000	0	104	83-135	849.5	19.9	30
o-Xylene	1050	18	59	1000	0	105	80-125	895.5	15.9	30
p-Isopropyltoluene	971	7.2	24	1000	0	97.1	61-164	849	13.4	30
sec-Butylbenzene	1047	15	49	1000	0	105	80-134	846	21.2	30
Styrene	1076	12	40	1000	0	108	83-137	934.5	14.1	30
tert-Butylbenzene	1098	17	58	1000	0	110	70-130	908	19	30
Tetrachloroethene	1128	14	46	1000	0	113	68-166	910	21.4	30
Toluene	1124	18	61	1000	77.5	105	76-125	957.5	16	30
trans-1,2-Dichloroethene	1125	14	46	1000	95	103	80-140	949.5	16.9	30
trans-1,3-Dichloropropene	959	41	140	1000	0	95.9	56-132	860.5	10.8	30
Trichloroethene	1009	15	50	1000	0	101	84-130	891.5	12.4	30
Trichlorofluoromethane	1100	10	33	1000	0	110	60-140	899.5	20.1	30
Vinyl chloride	937.5	10	34	1000	0	93.8	50-136	733.5	24.4	30
Xylenes, Total	3153	66	220	3000	0	105	80-126	2614	18.7	30
Surr: 1,2-Dichloroethane-d4	*930*	0	0	*1000*	0	*93*	*75-120*	1014	*8.59*	*30*
Surr: 4-Bromofluorobenzene	*959*	0	0	*1000*	0	*95.9*	*80-110*	945.5	*1.42*	*30*
Surr: Dibromofluoromethane	*1017*	0	0	*1000*	0	*102*	*85-115*	1004	*1.29*	*30*
Surr: Toluene-d8	*992*	0	0	*1000*	0	*99.2*	*85-110*	969	*2.35*	*30*

The following samples were analyzed in this batch:

1805671-04A	1805671-05A	1805671-06A
1805671-07A	1805671-08A	1805671-09A
1805671-10A	1805671-19A	1805671-26A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180418-R236211a** Units: **µg/L** Analysis Date: **05/18/18 08:03 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5041580** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a**	Instrument ID **VMS8**			Method: **SW8260C**				
Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*19.08*	0	0	*20*	0	*95.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.95*	0	0	*20*	0	*94.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.95*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*19.58*	0	0	*20*	0	*97.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180518-R236211a** Units: **µg/L** Analysis Date: **05/18/18 07:15 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5041579** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.23	0.33	1.0	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	23.35	0.17	1.0	20	0	117	75-130	0			
1,1,2-Trichloroethane	20.12	0.22	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	18.99	0.48	1.0	20	0	95	68-142	0			
1,1-Dichloroethene	20.33	0.36	1.0	20	0	102	70-145	0			
1,2,3-Trichlorobenzene	22.08	0.29	1.0	20	0	110	70-140	0			
1,2,4-Trichlorobenzene	22.8	0.25	1.0	20	0	114	70-135	0			
1,2-Dibromo-3-chloropropane	20.19	0.43	1.0	20	0	101	60-130	0			
1,2-Dibromoethane	21.51	0.17	1.0	20	0	108	67-155	0			
1,2-Dichlorobenzene	22.41	0.12	1.0	20	0	112	70-130	0			
1,2-Dichloroethane	19.1	0.11	1.0	20	0	95.5	78-125	0			
1,2-Dichloropropane	20.25	0.34	1.0	20	0	101	75-125	0			
1,3-Dichlorobenzene	22.65	0.13	1.0	20	0	113	75-130	0			
1,4-Dichlorobenzene	22.49	0.13	1.0	20	0	112	75-130	0			
2-Butanone	12.92	0.47	5.0	20	0	64.6	55-150	0			
2-Hexanone	19.09	0.5	5.0	20	0	95.4	60-135	0			
4-Methyl-2-pentanone	29.04	0.52	1.0	20	0	145	77-178	0			
Acetone	16.39	0.47	10	20	0	82	60-160	0			
Benzene	21.08	0.42	1.0	20	0	105	85-125	0			
Bromochloromethane	18.59	0.15	1.0	20	0	93	72-141	0			
Bromodichloromethane	20.78	0.22	1.0	20	0	104	75-125	0			
Bromoform	22.52	0.56	1.0	20	0	113	60-125	0			
Bromomethane	35.05	0.29	1.0	20	0	175	30-185	0			
Carbon disulfide	19.75	0.39	1.0	20	0	98.8	60-165	0			
Carbon tetrachloride	21.72	0.32	1.0	20	0	109	65-140	0			
Chlorobenzene	21.67	0.21	1.0	20	0	108	80-120	0			
Chloroethane	13.57	0.68	1.0	20	0	67.8	50-140	0			
Chloroform	19	0.46	1.0	20	0	95	80-130	0			
Chloromethane	14.88	0.68	1.0	20	0	74.4	46-148	0			
cis-1,2-Dichloroethene	20.3	0.38	1.0	20	0	102	75-134	0			
cis-1,3-Dichloropropene	20.65	0.13	1.0	20	0	103	70-130	0			
Dibromochloromethane	21	0.2	1.0	20	0	105	60-115	0			
Dichlorodifluoromethane	16.63	0.3	1.0	20	0	83.2	20-120	0			
Ethylbenzene	21.45	0.29	1.0	20	0	107	76-123	0			
Isopropylbenzene	20.98	0.17	1.0	20	0	105	80-127	0			
m,p-Xylene	42.25	0.53	2.0	40	0	106	75-130	0			
Methyl tert-butyl ether	20.53	0.21	1.0	20	0	103	68-129	0			
Methylene chloride	18.21	0.16	5.0	20	0	91	75-140	0			
o-Xylene	21.12	0.19	1.0	20	0	106	76-127	0			
Styrene	22.05	0.19	1.0	20	0	110	83-137	0			
Tetrachloroethene	23.9	0.28	1.0	20	0	120	68-166	0			
Toluene	21.73	0.32	1.0	20	0	109	76-125	0			
trans-1,2-Dichloroethene	19.77	0.48	1.0	20	0	98.8	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	20.02	0.15	1.0	20	0	100	56-132	0
Trichloroethene	20.82	0.33	1.0	20	0	104	84-130	0
Trichlorofluoromethane	16.5	0.24	1.0	20	0	82.5	60-140	0
Vinyl chloride	16.63	0.53	1.0	20	0	83.2	50-136	0
Surr: 1,2-Dichloroethane-d4	*18.83*	0	0	*20*	0	*94.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.95*	0	0	*20*	0	*99.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.2*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*20.2*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-19A MS** Units: **µg/L** Analysis Date: **05/19/18 01:55 AM**
Client ID: **MW-115** Run ID: **VMS8_180518B** SeqNo: **5041590** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	895	16	50	1000	0	89.5	75-130	0			
1,1,2,2-Tetrachloroethane	1058	8.5	50	1000	0	106	75-130	0			
1,1,2-Trichloroethane	889.5	11	50	1000	0	89	75-125	0			
1,1-Dichloroethane	931	24	50	1000	70	86.1	68-142	0			
1,1-Dichloroethene	922	18	50	1000	0	92.2	70-145	0			
1,2,3-Trichlorobenzene	918	14	50	1000	0	91.8	70-140	0			
1,2,4-Trichlorobenzene	845.5	12	50	1000	0	84.6	70-135	0			
1,2-Dibromo-3-chloropropane	926	22	50	1000	0	92.6	60-130	0			
1,2-Dibromoethane	1004	8.5	50	1000	0	100	67-155	0			
1,2-Dichlorobenzene	980.5	6	50	1000	0	98	70-130	0			
1,2-Dichloroethane	982.5	5.5	50	1000	62.5	92	78-125	0			
1,2-Dichloropropane	887.5	17	50	1000	0	88.8	75-125	0			
1,3-Dichlorobenzene	928	6.5	50	1000	0	92.8	75-130	0			
1,4-Dichlorobenzene	974.5	6.5	50	1000	0	97.4	75-130	0			
2-Butanone	897.5	24	250	1000	0	89.8	55-150	0			
2-Hexanone	939	25	250	1000	0	93.9	60-135	0			
4-Methyl-2-pentanone	1436	26	50	1000	0	144	77-178	0			
Acetone	921	24	500	1000	0	92.1	60-160	0			
Benzene	926	21	50	1000	0	92.6	85-125	0			
Bromochloromethane	972.5	7.5	50	1000	0	97.2	72-141	0			
Bromodichloromethane	938	11	50	1000	0	93.8	75-125	0			
Bromoform	983	28	50	1000	0	98.3	60-125	0			
Bromomethane	2250	14	50	1000	0	225	30-185	0			S
Carbon disulfide	834	20	50	1000	0	83.4	60-165	0			
Carbon tetrachloride	857	16	50	1000	0	85.7	65-140	0			
Chlorobenzene	901	10	50	1000	0	90.1	80-120	0			
Chloroethane	1790	34	50	1000	1144	64.7	50-140	0			
Chloroform	863	23	50	1000	0	86.3	80-130	0			
Chloromethane	665	34	50	1000	0	66.5	46-148	0			
cis-1,2-Dichloroethene	911.5	19	50	1000	0	91.2	75-134	0			
cis-1,3-Dichloropropene	930.5	6.5	50	1000	0	93	70-130	0			
Dibromochloromethane	903	10	50	1000	0	90.3	60-115	0			
Dichlorodifluoromethane	794.5	15	50	1000	0	79.4	20-120	0			
Ethylbenzene	874.5	14	50	1000	0	87.4	76-123	0			
Isopropylbenzene	835.5	8.5	50	1000	0	83.6	80-127	0			
m,p-Xylene	1719	26	100	2000	0	86	75-130	0			
Methyl tert-butyl ether	1024	10	50	1000	0	102	68-129	0			
Methylene chloride	883	8	250	1000	0	88.3	75-140	0			
o-Xylene	895.5	9.5	50	1000	0	89.6	76-127	0			
Styrene	934.5	9.5	50	1000	0	93.4	83-137	0			
Tetrachloroethene	910	14	50	1000	0	91	68-166	0			
Toluene	957.5	16	50	1000	77.5	88	76-125	0			
trans-1,2-Dichloroethene	949.5	24	50	1000	95	85.4	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,3-Dichloropropene	860.5	7.5	50	1000	0	86	56-132	0
Trichloroethene	891.5	16	50	1000	0	89.2	84-130	0
Trichlorofluoromethane	899.5	12	50	1000	0	90	60-140	0
Vinyl chloride	733.5	26	50	1000	0	73.4	50-136	0
Surr: 1,2-Dichloroethane-d4	*1014*	0	0	*1000*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*945.5*	0	0	*1000*	0	*94.6*	*80-110*	0
Surr: Dibromofluoromethane	*1004*	0	0	*1000*	0	*100*	*85-115*	0
Surr: Toluene-d8	*969*	0	0	*1000*	0	*96.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-19A MSD** Units: **µg/L** Analysis Date: **05/19/18 02:11 AM**
Client ID: **MW-115** Run ID: **VMS8_180518B** SeqNo: **5041591** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1084	16	50	1000	0	108	75-130	895	19.1	30	
1,1,2,2-Tetrachloroethane	1122	8.5	50	1000	0	112	75-130	1058	5.92	30	
1,1,2-Trichloroethane	954.5	11	50	1000	0	95.4	75-125	889.5	7.05	30	
1,1-Dichloroethane	1044	24	50	1000	70	97.4	68-142	931	11.4	30	
1,1-Dichloroethene	1118	18	50	1000	0	112	70-145	922	19.2	30	
1,2,3-Trichlorobenzene	993.5	14	50	1000	0	99.4	70-140	918	7.9	30	
1,2,4-Trichlorobenzene	965	12	50	1000	0	96.5	70-135	845.5	13.2	30	
1,2-Dibromo-3-chloropropane	924.5	22	50	1000	0	92.4	60-130	926	0.162	30	
1,2-Dibromoethane	1040	8.5	50	1000	0	104	67-155	1004	3.57	30	
1,2-Dichlorobenzene	1066	6	50	1000	0	107	70-130	980.5	8.4	30	
1,2-Dichloroethane	1016	5.5	50	1000	62.5	95.4	78-125	982.5	3.35	30	
1,2-Dichloropropane	952.5	17	50	1000	0	95.2	75-125	887.5	7.07	30	
1,3-Dichlorobenzene	1057	6.5	50	1000	0	106	75-130	928	13	30	
1,4-Dichlorobenzene	1075	6.5	50	1000	0	108	75-130	974.5	9.81	30	
2-Butanone	858.5	24	250	1000	0	85.8	55-150	897.5	4.44	30	
2-Hexanone	935.5	25	250	1000	0	93.6	60-135	939	0.373	30	
4-Methyl-2-pentanone	1452	26	50	1000	0	145	77-178	1436	1.18	30	
Acetone	935.5	24	500	1000	0	93.6	60-160	921	1.56	30	
Benzene	1044	21	50	1000	0	104	85-125	926	12	30	
Bromochloromethane	1016	7.5	50	1000	0	102	72-141	972.5	4.33	30	
Bromodichloromethane	977.5	11	50	1000	0	97.8	75-125	938	4.12	30	
Bromoform	1039	28	50	1000	0	104	60-125	983	5.54	30	
Bromomethane	2541	14	50	1000	0	254	30-185	2250	12.1	30	S
Carbon disulfide	1048	20	50	1000	0	105	60-165	834	22.8	30	
Carbon tetrachloride	1066	16	50	1000	0	107	65-140	857	21.8	30	
Chlorobenzene	1034	10	50	1000	0	103	80-120	901	13.7	30	
Chloroethane	1972	34	50	1000	1144	82.8	50-140	1790	9.62	30	
Chloroform	969.5	23	50	1000	0	97	80-130	863	11.6	30	
Chloromethane	775.5	34	50	1000	0	77.6	46-148	665	15.3	30	
cis-1,2-Dichloroethene	1006	19	50	1000	0	101	75-134	911.5	9.86	30	
cis-1,3-Dichloropropene	957.5	6.5	50	1000	0	95.8	70-130	930.5	2.86	30	
Dibromochloromethane	962	10	50	1000	0	96.2	60-115	903	6.33	30	
Dichlorodifluoromethane	968.5	15	50	1000	0	96.8	20-120	794.5	19.7	30	
Ethylbenzene	1058	14	50	1000	0	106	76-123	874.5	19	30	
Isopropylbenzene	1044	8.5	50	1000	0	104	80-127	835.5	22.2	30	
m,p-Xylene	2103	26	100	2000	0	105	75-130	1719	20.1	30	
Methyl tert-butyl ether	1050	10	50	1000	0	105	68-129	1024	2.6	30	
Methylene chloride	945	8	250	1000	0	94.5	75-140	883	6.78	30	
o-Xylene	1050	9.5	50	1000	0	105	76-127	895.5	15.9	30	
Styrene	1076	9.5	50	1000	0	108	83-137	934.5	14.1	30	
Tetrachloroethene	1128	14	50	1000	0	113	68-166	910	21.4	30	
Toluene	1124	16	50	1000	77.5	105	76-125	957.5	16	30	
trans-1,2-Dichloroethene	1125	24	50	1000	95	103	80-140	949.5	16.9	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	959	7.5	50	1000	0	95.9	56-132	860.5	10.8	30
Trichloroethene	1009	16	50	1000	0	101	84-130	891.5	12.4	30
Trichlorofluoromethane	1100	12	50	1000	0	110	60-140	899.5	20.1	30
Vinyl chloride	937.5	26	50	1000	0	93.8	50-136	733.5	24.4	30
Surr: 1,2-Dichloroethane-d4	*930*	0	0	*1000*	0	*93*	*75-120*	1014	*8.59*	*30*
Surr: 4-Bromofluorobenzene	*959*	0	0	*1000*	0	*95.9*	*80-110*	945.5	*1.42*	*30*
Surr: Dibromofluoromethane	*1017*	0	0	*1000*	0	*102*	*85-115*	1004	*1.29*	*30*
Surr: Toluene-d8	*992*	0	0	*1000*	0	*99.2*	*85-110*	969	*2.35*	*30*

The following samples were analyzed in this batch:

1805671-04A	1805671-05A	1805671-06A
1805671-07A	1805671-08A	1805671-09A
1805671-10A	1805671-19A	1805671-26A

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180520-R236222** Units: **µg/L** Analysis Date: **05/20/18 08:06 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094560** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	U	0.4	1.3								
m,p-Xylene	U	0.98	3.3								
Toluene	U	0.37	1.2								
Xylenes, Total	U	1.3	4.4								
Surr: 1,2-Dichloroethane-d4	*19.79*	0	0	*20*	0	*99*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.11*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.81*	0	0	*20*	0	*99*	*85-110*	0			

LCS Sample ID: **VLCSW1-180520-R236222** Units: **µg/L** Analysis Date: **05/20/18 07:24 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094581** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	20.38	0.4	1.3	20	0	102	76-123	0			
m,p-Xylene	39.91	0.98	3.3	40	0	99.8	75-130	0			
Toluene	18.86	0.37	1.2	20	0	94.3	76-125	0			
Xylenes, Total	60.25	1.3	4.4	60	0	100	80-126	0			
Surr: 1,2-Dichloroethane-d4	*19.69*	0	0	*20*	0	*98.4*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.99*	0	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*20.06*	0	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.86*	0	0	*20*	0	*99.3*	*85-110*	0			

MS Sample ID: **1805805-07A MS** Units: **µg/L** Analysis Date: **05/21/18 04:04 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094564** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	1299	20	67	1000	163.5	114	76-123	0			
m,p-Xylene	3278	49	160	2000	630.5	132	75-130	0			S
Toluene	3007	18	61	1000	1146	186	76-125	0			S
Xylenes, Total	5369	66	220	3000	1136	141	80-126	0			S
Surr: 1,2-Dichloroethane-d4	*771*	0	0	*1000*	0	*77.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*990.5*	0	0	*1000*	0	*99*	*80-110*	0			
Surr: Dibromofluoromethane	*913*	0	0	*1000*	0	*91.3*	*85-115*	0			
Surr: Toluene-d8	*977*	0	0	*1000*	0	*97.7*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805805-07A MSD** Units: **µg/L** Analysis Date: **05/21/18 04:25 AM**

Client ID: Run ID: **VMS7_180520A** SeqNo: **5094565** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	1412	20	67	1000	163.5	125	76-123	1299	8.3	30	S
m,p-Xylene	3560	49	160	2000	630.5	146	75-130	3278	8.26	30	S
Toluene	3366	18	61	1000	1146	222	76-125	3007	11.3	30	S
Xylenes, Total	5778	66	220	3000	1136	155	80-126	5369	7.33	30	S
Surr: 1,2-Dichloroethane-d4	*823.5*	0	0	*1000*	0	*82.4*	*75-120*	771	*6.59*	*30*	
Surr: 4-Bromofluorobenzene	*978*	0	0	*1000*	0	*97.8*	*80-110*	990.5	*1.27*	*30*	
Surr: Dibromofluoromethane	*939*	0	0	*1000*	0	*93.9*	*85-115*	913	*2.81*	*30*	
Surr: Toluene-d8	*979.5*	0	0	*1000*	0	*98*	*85-110*	977	*0.256*	*30*	

The following samples were analyzed in this batch: 1805671-04A 1805671-05A 1805671-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222a** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180520-R236222a** Units: **µg/L** Analysis Date: **05/20/18 08:06 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043327** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	U	0.29	1.0								
m,p-Xylene	U	0.53	2.0								
Toluene	U	0.32	1.0								
Surr: 1,2-Dichloroethane-d4	*19.79*	0	0	*20*	0	*99*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.11*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.81*	0	0	*20*	0	*99*	*85-110*	0			

LCS Sample ID: **VLCSW1-180520-R236222a** Units: **µg/L** Analysis Date: **05/20/18 07:24 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043693** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	20.38	0.29	1.0	20	0	102	76-123	0			
m,p-Xylene	39.91	0.53	2.0	40	0	99.8	75-130	0			
Toluene	18.86	0.32	1.0	20	0	94.3	76-125	0			
Surr: 1,2-Dichloroethane-d4	*19.69*	0	0	*20*	0	*98.4*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.99*	0	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*20.06*	0	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.86*	0	0	*20*	0	*99.3*	*85-110*	0			

MS Sample ID: **1805805-07A MS** Units: **µg/L** Analysis Date: **05/21/18 04:04 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043336** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	1299	14	50	1000	163.5	114	76-123	0			
m,p-Xylene	3278	26	100	2000	630.5	132	75-130	0			S
Toluene	3007	16	50	1000	1146	186	76-125	0			S
Surr: 1,2-Dichloroethane-d4	*771*	0	0	*1000*	0	*77.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*990.5*	0	0	*1000*	0	*99*	*80-110*	0			
Surr: Dibromofluoromethane	*913*	0	0	*1000*	0	*91.3*	*85-115*	0			
Surr: Toluene-d8	*977*	0	0	*1000*	0	*97.7*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805671
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222a** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805805-07A MSD** Units: **µg/L** Analysis Date: **05/21/18 04:25 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043337** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	1412	14	50	1000	163.5	125	76-123	1299	8.3	30	S
m,p-Xylene	3560	26	100	2000	630.5	146	75-130	3278	8.26	30	S
Toluene	3366	16	50	1000	1146	222	76-125	3007	11.3	30	S
Surr: 1,2-Dichloroethane-d4	*823.5*	0	0	*1000*	0	*82.4*	*75-120*	771	*6.59*	*30*	
Surr: 4-Bromofluorobenzene	*978*	0	0	*1000*	0	*97.8*	*80-110*	990.5	*1.27*	*30*	
Surr: Dibromofluoromethane	*939*	0	0	*1000*	0	*93.9*	*85-115*	913	*2.81*	*30*	
Surr: Toluene-d8	*979.5*	0	0	*1000*	0	*98*	*85-110*	977	*0.256*	*30*	

The following samples were analyzed in this batch: 1805671-04A 1805671-05A 1805671-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Cincinnati, OH +1 513 733 5336
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Chain of Custody Form

COC ID: 185396

ALS Project Manager: TJB | ALS Work Order #: 1805171

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc.	C	
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	W-3A	5/8/18	10:05	GW	HCl	3	3										
2	W-3B		10:10														
3	W-18		15:50														
4	W-18A		15:25														
5	W-19R		16:30														
6	W-19R dup		"														
7	W-20		18:00														
8	W-27		13:10														
9	W-28		17:15														
10	MW-111		10:45														

Sampler(s) Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:
Chelsea Payne Chelsea Payne	FedEx		

Relinquished by: Chelsea Payne	Date: 5/9/18	Time: 9:30	Received by: FedEx	Notes:
Relinquished by: FedEx	Date: 5/10/18	Time: 0930	Received by (Laboratory):	Cooler ID: SR2 / Cooler Temp.: 3.4° / QC Package: (Check One Box Below)
Logged by (Laboratory): KW	Date: 5/10/18	Time: 1244	Checked by (Laboratory): TJB	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185395

ALS Project Manager: JB | ALS Work Order #: 1803671

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc	C	
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
11	MW-111A	5/8/18	11:00	GW	HCl	3	3										
12	MW-111B		11:15														
13	MW-112		11:40														
14	MW-112A		11:30														
15	MW-112B		11:55														
16	MW-114		14:55														
17	MW-114A		15:05														
18	MW-114B		15:00														
19	MW-115		13:35														
10	MW-115A		13:50														

Sampler(s) Please Print & Sign: Chelsea Payne | Shipment Method: FedEx | Required Turnaround Time: (Check Box) | Results Due Date:

Relinquished by:	Date: 5/9/18	Time: 9:30	Received by: FedEx	Notes:	
Relinquished by: FedEx	Date: 5/10/18	Time: 0930	Received by (Laboratory):	Cooler ID / Cooler Temp.	QC Package: (Check One Box Below)
Logged by (Laboratory): KV	Date: 5/10/18	Time: 1244	Checked by (Laboratory): JB		

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185394

ALS Project Manager: BB | ALS Work Order #: 1805671

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc	C	
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
21	MW-115B	5/8/18	14:25	GW	HCl	3	3										
22	Field Blank		9:50														
23	Seep 2N		10:50														
24	Seep 7N		10:55														
25	Seep 8N		11:00														
26	Seep 9N		11:05														
27	Trip Blank					2	2										
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by:	Date: 5/9/18	Time: 9:30	Received by: FedEx	Notes:
Relinquished by: FedEx	Date: 5/10/18	Time: 0930	Received by (Laboratory):	Cooler ID / Cooler Temp. / QC Package: (Check One Box Below)
Logged by (Laboratory):	Date: 5/10/18	Time: 1244	Checked by (Laboratory): BB	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group, USA

Sample Receipt Checklist

Client Name: **GANNETTFLEMING - WI** Date/Time Received: **10-May-18 09:30**

Work Order: **1805671** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 10-May-18 (Date) Reviewed by: Tom Bramish (eSignature) 10-May-18 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4/3.4 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/10/2018 12:55:25 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Revision: 2

The analytical results and QA/QC data included with this report were reviewed by AWM on 06/23/18.

23-Jun-2018

Anthony Miller
Gannett Fleming, Inc.
8025 Excelsior Dr.
Madison, WI 53717-1900

Re: **WRR (55929.005)**

Work Order: **1805785**

Dear Anthony,

Revision: **1**

ALS Environmental received 16 samples on 11-May-2018 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 118.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Tom Beamish

Tom Beamish
Senior Project Manager

Report of Laboratory Analysis

Certificate No: WI: 399084510

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: **1805785**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1805785-01	W-7	Water		05/10/18 07:55	05/11/18 09:30	☐
1805785-02	W-7A	Water		05/10/18 08:05	05/11/18 09:30	☐
1805785-03	W-7A dup	Water		05/10/18 08:05	05/11/18 09:30	☐
1805785-04	W-31A	Water		05/10/18 08:55	05/11/18 09:30	☐
1805785-05	W-31B	Water		05/10/18 08:45	05/11/18 09:30	☐
1805785-06	W-33	Water		05/10/18 07:10	05/11/18 09:30	☐
1805785-07	TW-1	Water		05/10/18 10:00	05/11/18 09:30	☐
1805785-08	MB2	Water		05/10/18 06:50	05/11/18 09:30	☑
1805785-09	DW	Water		05/10/18 10:50	05/11/18 09:30	☐
1805785-10	RW-2	Water		05/10/18 09:35	05/11/18 09:30	☐
1805785-11	RW-5	Water		05/10/18 11:00	05/11/18 09:30	☐
1805785-12	RW-7	Water		05/10/18 10:10	05/11/18 09:30	☐
1805785-13	RW-8	Water		05/10/18 09:30	05/11/18 09:30	☐
1805785-14	RW-9	Water		05/10/18 09:32	05/11/18 09:30	☐
1805785-15	RW-12	Water		05/10/18 09:55	05/11/18 09:30	☐
1805785-16	Trip Blank	Water		05/10/18	05/11/18 09:30	☐

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
WorkOrder: **1805785**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: 1805785

Case Narrative

Samples for the above noted Work Order were received on 05/11/18. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, sample condition, preservation, and temperature compliance.
In order to ensure compliance with NR 149 criteria, please note the following report format:
(1) The Limit of Detection (LOD) is reported as the MDL (Method Detection Limit)
(2) The Limit of Quantitation (LOQ) is reported as the PQL (Practical Quantitation Limit)
(3) All reported concentrations, including those for the LOD and LOQ, are adjusted for any required dilutions
(4) All reported concentrations, including those for the LOD and LOQ, are adjusted for moisture content when samples are reported on a dry weight basis.

Samples were analyzed according to the analytical methodology previously documented in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Detail as to the associated samples can be found at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, acronyms, and units utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R236015A, Method VOC_8260_W, Sample 1805785-07A MS and -07A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding results in the parent sample may be biased high for Styrene, 4-Methyl-2-pentanone, and MTBE.

Batch R236039a, Method VOC_8260_W, Sample 1805785-15A MS and -15A MSD: The MS and/or MSD recovery was above the upper control limit for several compounds. The corresponding results in the parent sample may be biased high.

Batch R236094, Method VOC_8260_W, Sample VLCSW2-180517: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Bromomethane.

Batch R236164a, Method VOC_8260_W, Sample 1805785-15A MS and -15A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for Bromomethane.

No other deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7
Collection Date: 05/10/18 07:55 AM

Work Order: 1805785
Lab ID: 1805785-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 20:24
1,1,1-Trichloroethane	**36**		**0.36**	**1.2**	**µg/L**	1	05/16/18 20:24
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 20:24
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 20:24
1,1-Dichloroethane	**4.1**		**0.31**	**1.0**	**µg/L**	1	05/16/18 20:24
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 20:24
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 20:24
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 20:24
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 20:24
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:24
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 20:24
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 20:24
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 20:24
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 20:24
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 20:24
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 20:24
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 20:24
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 20:24
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 20:24
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:24
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 20:24
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 20:24
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 20:24
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 20:24
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 20:24
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 20:24
Acetone	**16**		**0.92**	**3.1**	**µg/L**	1	05/16/18 20:24
Benzene	U		0.30	1.0	µg/L	1	05/16/18 20:24
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 20:24
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 20:24
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 20:24
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 20:24
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 20:24
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 20:24
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 20:24
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 20:24
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 20:24
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 20:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7
Collection Date: 05/10/18 07:55 AM

Work Order: 1805785
Lab ID: 1805785-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**30**		**0.25**	**0.85**	**µg/L**	1	05/16/18 20:24
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 20:24
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 20:24
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 20:24
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 20:24
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 20:24
Ethylbenzene	**1.4**		**0.40**	**1.3**	**µg/L**	1	05/16/18 20:24
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 20:24
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 20:24
m,p-Xylene	**2.6**	J	**0.98**	**3.3**	**µg/L**	1	05/16/18 20:24
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/16/18 20:24
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 20:24
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 20:24
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 20:24
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 20:24
o-Xylene	**2.2**		**0.35**	**1.2**	**µg/L**	1	05/16/18 20:24
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 20:24
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 20:24
Styrene	U		0.24	0.79	µg/L	1	05/16/18 20:24
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 20:24
Tetrachloroethene	**32**		**0.27**	**0.91**	**µg/L**	1	05/16/18 20:24
Toluene	**6.0**		**0.37**	**1.2**	**µg/L**	1	05/16/18 20:24
trans-1,2-Dichloroethene	**1.8**		**0.28**	**0.93**	**µg/L**	1	05/16/18 20:24
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 20:24
Trichloroethene	**65**		**0.30**	**0.99**	**µg/L**	1	05/16/18 20:24
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 20:24
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 20:24
Xylenes, Total	**4.8**		**1.3**	**4.4**	**µg/L**	1	05/16/18 20:24
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	1	05/16/18 20:24
Surr: 4-Bromofluorobenzene	*101*			*80-110*	*%REC*	1	05/16/18 20:24
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/16/18 20:24
Surr: Toluene-d8	*97.9*			*85-110*	*%REC*	1	05/16/18 20:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7A
Collection Date: 05/10/18 08:05 AM

Work Order: 1805785
Lab ID: 1805785-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 20:40
1,1,1-Trichloroethane	**10**		**0.36**	**1.2**	**µg/L**	1	05/16/18 20:40
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 20:40
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 20:40
1,1-Dichloroethane	**0.86**	J	**0.31**	**1.0**	**µg/L**	1	05/16/18 20:40
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 20:40
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 20:40
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 20:40
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 20:40
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:40
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 20:40
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 20:40
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 20:40
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 20:40
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 20:40
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 20:40
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 20:40
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 20:40
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 20:40
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:40
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 20:40
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 20:40
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 20:40
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 20:40
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 20:40
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 20:40
Acetone	**1.9**	J	**0.92**	**3.1**	**µg/L**	1	05/16/18 20:40
Benzene	U		0.30	1.0	µg/L	1	05/16/18 20:40
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 20:40
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 20:40
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 20:40
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 20:40
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 20:40
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 20:40
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 20:40
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 20:40
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 20:40
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 20:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7A
Collection Date: 05/10/18 08:05 AM

Work Order: 1805785
Lab ID: 1805785-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**6.9**		**0.25**	**0.85**	**µg/L**	1	05/16/18 20:40
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 20:40
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 20:40
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 20:40
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 20:40
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 20:40
Ethylbenzene	**0.58**	J	**0.40**	**1.3**	**µg/L**	1	05/16/18 20:40
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 20:40
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 20:40
m,p-Xylene	**1.8**	J	**0.98**	**3.3**	**µg/L**	1	05/16/18 20:40
Methyl tert-butyl ether	**37**		**0.12**	**0.40**	**µg/L**	1	05/16/18 20:40
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 20:40
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 20:40
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 20:40
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 20:40
o-Xylene	**1.1**	J	**0.35**	**1.2**	**µg/L**	1	05/16/18 20:40
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 20:40
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 20:40
Styrene	U		0.24	0.79	µg/L	1	05/16/18 20:40
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 20:40
Tetrachloroethene	**38**		**0.27**	**0.91**	**µg/L**	1	05/16/18 20:40
Toluene	**2.4**		**0.37**	**1.2**	**µg/L**	1	05/16/18 20:40
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 20:40
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 20:40
Trichloroethene	**24**		**0.30**	**0.99**	**µg/L**	1	05/16/18 20:40
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 20:40
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 20:40
Xylenes, Total	**2.9**	J	**1.3**	**4.4**	**µg/L**	1	05/16/18 20:40
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	1	05/16/18 20:40
Surr: 4-Bromofluorobenzene	*100*			*80-110*	*%REC*	1	05/16/18 20:40
Surr: Dibromofluoromethane	*97.2*			*85-115*	*%REC*	1	05/16/18 20:40
Surr: Toluene-d8	*97.5*			*85-110*	*%REC*	1	05/16/18 20:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7A dup
Collection Date: 05/10/18 08:05 AM

Work Order: 1805785
Lab ID: 1805785-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 20:56
1,1,1-Trichloroethane	**2.0**		**0.36**	**1.2**	**µg/L**	1	05/16/18 20:56
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 20:56
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 20:56
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/16/18 20:56
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/16/18 20:56
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 20:56
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 20:56
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 20:56
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:56
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/16/18 20:56
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 20:56
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 20:56
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/16/18 20:56
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/16/18 20:56
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/16/18 20:56
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/16/18 20:56
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 20:56
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 20:56
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 20:56
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 20:56
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 20:56
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 20:56
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 20:56
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 20:56
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/16/18 20:56
Acetone	**5.0**		**0.92**	**3.1**	**µg/L**	1	05/16/18 20:56
Benzene	U		0.30	1.0	µg/L	1	05/16/18 20:56
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 20:56
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 20:56
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 20:56
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 20:56
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 20:56
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 20:56
Chlorobenzene	U		0.27	0.90	µg/L	1	05/16/18 20:56
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 20:56
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 20:56
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 20:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-7A dup
Collection Date: 05/10/18 08:05 AM

Work Order: 1805785
Lab ID: 1805785-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**2.5**		**0.25**	**0.85**	**µg/L**	1	05/16/18 20:56
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 20:56
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 20:56
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 20:56
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/16/18 20:56
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 20:56
Ethylbenzene	U		0.40	1.3	µg/L	1	05/16/18 20:56
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 20:56
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/16/18 20:56
m,p-Xylene	U		0.98	3.3	µg/L	1	05/16/18 20:56
Methyl tert-butyl ether	**63**		**0.12**	**0.40**	**µg/L**	1	05/16/18 20:56
Methylene chloride	U		0.56	1.8	µg/L	1	05/16/18 20:56
Naphthalene	U		0.18	0.59	µg/L	1	05/16/18 20:56
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 20:56
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/16/18 20:56
o-Xylene	U		0.35	1.2	µg/L	1	05/16/18 20:56
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/16/18 20:56
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/16/18 20:56
Styrene	U		0.24	0.79	µg/L	1	05/16/18 20:56
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 20:56
Tetrachloroethene	**35**		**0.27**	**0.91**	**µg/L**	1	05/16/18 20:56
Toluene	U		0.37	1.2	µg/L	1	05/16/18 20:56
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/16/18 20:56
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 20:56
Trichloroethene	**3.2**		**0.30**	**0.99**	**µg/L**	1	05/16/18 20:56
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 20:56
Vinyl chloride	U		0.20	0.68	µg/L	1	05/16/18 20:56
Xylenes, Total	U		1.3	4.4	µg/L	1	05/16/18 20:56
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 20:56
Surr: 4-Bromofluorobenzene	*99.0*			*80-110*	*%REC*	1	05/16/18 20:56
Surr: Dibromofluoromethane	*95.8*			*85-115*	*%REC*	1	05/16/18 20:56
Surr: Toluene-d8	*95.2*			*85-110*	*%REC*	1	05/16/18 20:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-31A
Collection Date: 05/10/18 08:55 AM

Work Order: 1805785
Lab ID: 1805785-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 21:12
1,1,1-Trichloroethane	**25**		**0.36**	**1.2**	**µg/L**	1	05/16/18 21:12
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 21:12
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/16/18 21:12
1,1-Dichloroethane	**41**		**0.31**	**1.0**	**µg/L**	1	05/16/18 21:12
1,1-Dichloroethene	**2.2**		**0.28**	**0.92**	**µg/L**	1	05/16/18 21:12
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 21:12
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 21:12
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 21:12
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:12
1,2,4-Trimethylbenzene	**49**		**0.37**	**1.2**	**µg/L**	1	05/16/18 21:12
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 21:12
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 21:12
1,2-Dichlorobenzene	**1.6**		**0.22**	**0.73**	**µg/L**	1	05/16/18 21:12
1,2-Dichloroethane	**92**		**0.17**	**0.55**	**µg/L**	1	05/16/18 21:12
1,2-Dichloropropane	**11**		**0.25**	**0.83**	**µg/L**	1	05/16/18 21:12
1,3,5-Trimethylbenzene	**12**		**0.29**	**0.95**	**µg/L**	1	05/16/18 21:12
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/16/18 21:12
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 21:12
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:12
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 21:12
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 21:12
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 21:12
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 21:12
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 21:12
4-Methyl-2-pentanone	**3,000**		**11**	**40**	**µg/L**	100	05/17/18 18:30
Acetone	U		0.92	3.1	µg/L	1	05/16/18 21:12
Benzene	**24**		**0.30**	**1.0**	**µg/L**	1	05/16/18 21:12
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 21:12
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 21:12
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 21:12
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 21:12
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 21:12
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 21:12
Chlorobenzene	**7.1**		**0.27**	**0.90**	**µg/L**	1	05/16/18 21:12
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 21:12
Chloroform	U		0.26	0.86	µg/L	1	05/16/18 21:12
Chloromethane	U		0.17	0.57	µg/L	1	05/16/18 21:12

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-31A
Collection Date: 05/10/18 08:55 AM

Work Order: 1805785
Lab ID: 1805785-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**43**		**0.25**	**0.85**	**µg/L**	1	05/16/18 21:12
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 21:12
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 21:12
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 21:12
Dichlorodifluoromethane	**0.32**	J	**0.13**	**0.44**	**µg/L**	1	05/16/18 21:12
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 21:12
Ethylbenzene	**640**		**40**	**130**	**µg/L**	100	05/17/18 18:30
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 21:12
Isopropylbenzene	**6.3**		**0.31**	**1.0**	**µg/L**	1	05/16/18 21:12
m,p-Xylene	**1,800**		**98**	**330**	**µg/L**	100	05/17/18 18:30
Methyl tert-butyl ether	**4.6**		**0.12**	**0.40**	**µg/L**	1	05/16/18 21:12
Methylene chloride	**81**		**0.56**	**1.8**	**µg/L**	1	05/16/18 21:12
Naphthalene	**5.7**		**0.18**	**0.59**	**µg/L**	1	05/16/18 21:12
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 21:12
n-Propylbenzene	**7.2**		**0.24**	**0.81**	**µg/L**	1	05/16/18 21:12
o-Xylene	**570**		**35**	**120**	**µg/L**	100	05/17/18 18:30
p-Isopropyltoluene	**0.61**		**0.14**	**0.48**	**µg/L**	1	05/16/18 21:12
sec-Butylbenzene	**0.44**	J	**0.29**	**0.98**	**µg/L**	1	05/16/18 21:12
Styrene	U		0.24	0.79	µg/L	1	05/16/18 21:12
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 21:12
Tetrachloroethene	**23**		**0.27**	**0.91**	**µg/L**	1	05/16/18 21:12
Toluene	**9,500**		**73**	**240**	**µg/L**	200	05/21/18 12:35
trans-1,2-Dichloroethene	**5.3**		**0.28**	**0.93**	**µg/L**	1	05/16/18 21:12
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 21:12
Trichloroethene	**49**		**0.30**	**0.99**	**µg/L**	1	05/16/18 21:12
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 21:12
Vinyl chloride	**11**		**2.0**	**6.8**	**µg/L**	10	05/18/18 06:12
Xylenes, Total	**2,400**		**130**	**440**	**µg/L**	100	05/17/18 18:30
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	05/16/18 21:12
Surr: 1,2-Dichloroethane-d4	*93.4*			*75-120*	*%REC*	100	05/17/18 18:30
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	10	05/18/18 06:12
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	200	05/21/18 12:35
Surr: 4-Bromofluorobenzene	*108*			*80-110*	*%REC*	1	05/16/18 21:12
Surr: 4-Bromofluorobenzene	*98.1*			*80-110*	*%REC*	100	05/17/18 18:30
Surr: 4-Bromofluorobenzene	*98.2*			*80-110*	*%REC*	10	05/18/18 06:12
Surr: 4-Bromofluorobenzene	*95.1*			*80-110*	*%REC*	200	05/21/18 12:35
Surr: Dibromofluoromethane	*98.0*			*85-115*	*%REC*	1	05/16/18 21:12
Surr: Dibromofluoromethane	*98.6*			*85-115*	*%REC*	100	05/17/18 18:30
Surr: Dibromofluoromethane	*108*			*85-115*	*%REC*	10	05/18/18 06:12
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	200	05/21/18 12:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-31A
Collection Date: 05/10/18 08:55 AM

Work Order: 1805785
Lab ID: 1805785-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	*91.2*			*85-110*	*%REC*	1	05/16/18 21:12
Surr: Toluene-d8	*96.6*			*85-110*	*%REC*	100	05/17/18 18:30
Surr: Toluene-d8	*97.1*			*85-110*	*%REC*	10	05/18/18 06:12
Surr: Toluene-d8	*99.4*			*85-110*	*%REC*	200	05/21/18 12:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-31B
Collection Date: 05/10/18 08:45 AM

Work Order: 1805785
Lab ID: 1805785-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 02:54
1,1,1-Trichloroethane	**6.6**		**0.36**	**1.2**	**µg/L**	1	05/18/18 02:54
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 02:54
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 02:54
1,1-Dichloroethane	**0.62**	J	**0.31**	**1.0**	**µg/L**	1	05/18/18 02:54
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 02:54
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 02:54
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 02:54
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 02:54
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 02:54
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 02:54
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 02:54
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 02:54
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 02:54
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 02:54
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 02:54
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 02:54
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 02:54
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 02:54
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 02:54
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 02:54
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 02:54
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 02:54
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 02:54
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 02:54
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 02:54
Acetone	U		0.92	3.1	µg/L	1	05/18/18 02:54
Benzene	U		0.30	1.0	µg/L	1	05/18/18 02:54
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 02:54
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 02:54
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 02:54
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 02:54
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 02:54
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 02:54
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 02:54
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 02:54
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 02:54
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 02:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-31B
Collection Date: 05/10/18 08:45 AM

Work Order: 1805785
Lab ID: 1805785-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**2.6**		**0.25**	**0.85**	**µg/L**	1	05/18/18 02:54
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 02:54
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 02:54
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 02:54
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 02:54
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 02:54
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 02:54
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 02:54
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 02:54
m,p-Xylene	**1.0**	J	**0.98**	**3.3**	**µg/L**	1	05/18/18 02:54
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 02:54
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 02:54
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 02:54
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 02:54
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 02:54
o-Xylene	**0.56**	J	**0.35**	**1.2**	**µg/L**	1	05/18/18 02:54
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 02:54
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 02:54
Styrene	U		0.24	0.79	µg/L	1	05/18/18 02:54
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 02:54
Tetrachloroethene	**10**		**0.27**	**0.91**	**µg/L**	1	05/18/18 02:54
Toluene	**1.6**		**0.37**	**1.2**	**µg/L**	1	05/18/18 02:54
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 02:54
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 02:54
Trichloroethene	**15**		**0.30**	**0.99**	**µg/L**	1	05/18/18 02:54
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 02:54
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 02:54
Xylenes, Total	**1.6**	J	**1.3**	**4.4**	**µg/L**	1	05/18/18 02:54
Surr: 1,2-Dichloroethane-d4	*95.6*			*75-120*	*%REC*	1	05/18/18 02:54
Surr: 4-Bromofluorobenzene	*99.6*			*80-110*	*%REC*	1	05/18/18 02:54
Surr: Dibromofluoromethane	*97.4*			*85-115*	*%REC*	1	05/18/18 02:54
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/18/18 02:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-33
Collection Date: 05/10/18 07:10 AM

Work Order: 1805785
Lab ID: 1805785-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
GASES IN WATER		Method: **RSK-175**					Analyst: **MEB**
Ethane	**8.7**		**0.21**	**5.0**	**µg/L**	1	05/16/18 16:38
Ethene	**39**		**0.41**	**5.0**	**µg/L**	1	05/16/18 16:38
Methane	**73**		**0.64**	**5.0**	**µg/L**	1	05/16/18 16:38
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3005A / 5/15/18		Analyst: **JF**
Iron	**120**		**0.015**	**0.080**	**mg/L**	1	05/15/18 17:14
Manganese	**7.5**		**0.0026**	**0.050**	**mg/L**	10	05/16/18 13:02
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/16/18 21:43
1,1,1-Trichloroethane	**2,000**		**72**	**240**	**µg/L**	200	05/18/18 06:54
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/16/18 21:43
1,1,2-Trichloroethane	**18**		**0.40**	**1.3**	**µg/L**	1	05/16/18 21:43
1,1-Dichloroethane	**2,000**		**62**	**210**	**µg/L**	200	05/18/18 06:54
1,1-Dichloroethene	**61**		**0.28**	**0.92**	**µg/L**	1	05/16/18 21:43
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/16/18 21:43
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/16/18 21:43
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/16/18 21:43
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/16/18 21:43
1,2,4-Trimethylbenzene	**81**		**0.37**	**1.2**	**µg/L**	1	05/16/18 21:43
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/16/18 21:43
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/16/18 21:43
1,2-Dichlorobenzene	**12**		**0.22**	**0.73**	**µg/L**	1	05/16/18 21:43
1,2-Dichloroethane	**16**		**0.17**	**0.55**	**µg/L**	1	05/16/18 21:43
1,2-Dichloropropane	**15**		**0.25**	**0.83**	**µg/L**	1	05/16/18 21:43
1,3,5-Trimethylbenzene	**21**		**0.29**	**0.95**	**µg/L**	1	05/16/18 21:43
1,3-Dichlorobenzene	**0.85**	J	**0.29**	**0.96**	**µg/L**	1	05/16/18 21:43
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/16/18 21:43
1,4-Dichlorobenzene	**2.2**		**0.21**	**0.71**	**µg/L**	1	05/16/18 21:43
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/16/18 21:43
2-Butanone	U		0.58	2.0	µg/L	1	05/16/18 21:43
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/16/18 21:43
2-Propanol	**N/A**		**0**		**µg/L**	1	05/16/18 21:43
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/16/18 21:43
4-Methyl-2-pentanone	**51**		**0.11**	**0.40**	**µg/L**	1	05/16/18 21:43
Acetone	**40**		**0.92**	**3.1**	**µg/L**	1	05/16/18 21:43
Benzene	**3.7**		**0.30**	**1.0**	**µg/L**	1	05/16/18 21:43
Bromobenzene	U		0.24	0.80	µg/L	1	05/16/18 21:43
Bromochloromethane	U		0.20	0.66	µg/L	1	05/16/18 21:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-33
Collection Date: 05/10/18 07:10 AM

Work Order: 1805785
Lab ID: 1805785-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/16/18 21:43
Bromoform	U		0.77	2.6	µg/L	1	05/16/18 21:43
Bromomethane	U		0.38	1.3	µg/L	1	05/16/18 21:43
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/16/18 21:43
Chlorobenzene	**1.1**		**0.27**	**0.90**	**µg/L**	1	05/16/18 21:43
Chloroethane	U		0.29	0.97	µg/L	1	05/16/18 21:43
Chloroform	**16**		**0.26**	**0.86**	**µg/L**	1	05/16/18 21:43
Chloromethane	**0.40**	J	**0.17**	**0.57**	**µg/L**	1	05/16/18 21:43
cis-1,2-Dichloroethene	**8,900**		**51**	**170**	**µg/L**	200	05/18/18 06:54
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/16/18 21:43
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/16/18 21:43
Dibromomethane	U		0.25	0.83	µg/L	1	05/16/18 21:43
Dichlorodifluoromethane	**1.9**		**0.13**	**0.44**	**µg/L**	1	05/16/18 21:43
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/16/18 21:43
Ethylbenzene	**98**		**10**	**34**	**µg/L**	25	05/18/18 15:55
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/16/18 21:43
Isopropylbenzene	**6.5**		**0.31**	**1.0**	**µg/L**	1	05/16/18 21:43
m,p-Xylene	**280**		**24**	**82**	**µg/L**	25	05/18/18 15:55
Methyl tert-butyl ether	**2.6**		**0.12**	**0.40**	**µg/L**	1	05/16/18 21:43
Methylene chloride	**220**		**14**	**46**	**µg/L**	25	05/18/18 15:55
Naphthalene	**10**		**0.18**	**0.59**	**µg/L**	1	05/16/18 21:43
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/16/18 21:43
n-Propylbenzene	**8.4**		**0.24**	**0.81**	**µg/L**	1	05/16/18 21:43
o-Xylene	**210**		**8.8**	**30**	**µg/L**	25	05/18/18 15:55
p-Isopropyltoluene	**1.7**		**0.14**	**0.48**	**µg/L**	1	05/16/18 21:43
sec-Butylbenzene	**0.86**	J	**0.29**	**0.98**	**µg/L**	1	05/16/18 21:43
Styrene	U		0.24	0.79	µg/L	1	05/16/18 21:43
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/16/18 21:43
Tetrachloroethene	**280**		**6.8**	**23**	**µg/L**	25	05/18/18 15:55
Toluene	**160**		**9.2**	**30**	**µg/L**	25	05/18/18 15:55
trans-1,2-Dichloroethene	**99**		**0.28**	**0.93**	**µg/L**	1	05/16/18 21:43
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/16/18 21:43
Trichloroethene	**260**		**7.4**	**25**	**µg/L**	25	05/18/18 15:55
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/16/18 21:43
Vinyl chloride	**160**		**5.1**	**17**	**µg/L**	25	05/18/18 15:55
Xylenes, Total	**490**		**33**	**110**	**µg/L**	25	05/18/18 15:55
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/16/18 21:43
Surr: 1,2-Dichloroethane-d4	*99.2*			*75-120*	*%REC*	200	05/18/18 06:54
Surr: 1,2-Dichloroethane-d4	*95.9*			*75-120*	*%REC*	25	05/18/18 15:55
Surr: 4-Bromofluorobenzene	*104*			*80-110*	*%REC*	1	05/16/18 21:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-33
Collection Date: 05/10/18 07:10 AM

Work Order: 1805785
Lab ID: 1805785-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*95.6*			*80-110*	*%REC*	200	05/18/18 06:54
Surr: 4-Bromofluorobenzene	*98.2*			*80-110*	*%REC*	25	05/18/18 15:55
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1	05/16/18 21:43
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	200	05/18/18 06:54
Surr: Dibromofluoromethane	*99.1*			*85-115*	*%REC*	25	05/18/18 15:55
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/16/18 21:43
Surr: Toluene-d8	*99.5*			*85-110*	*%REC*	200	05/18/18 06:54
Surr: Toluene-d8	*99.8*			*85-110*	*%REC*	25	05/18/18 15:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: TW-1
Collection Date: 05/10/18 10:00 AM

Work Order: 1805785
Lab ID: 1805785-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		11	37	µg/L	50	05/18/18 06:33
1,1,1-Trichloroethane	U		18	60	µg/L	50	05/18/18 06:33
1,1,2,2-Tetrachloroethane	U		9.3	31	µg/L	50	05/18/18 06:33
1,1,2-Trichloroethane	U		20	66	µg/L	50	05/18/18 06:33
1,1-Dichloroethane	**100**		**15**	**52**	**µg/L**	50	05/18/18 06:33
1,1-Dichloroethene	U		14	46	µg/L	50	05/18/18 06:33
1,1-Dichloropropene	U		18	59	µg/L	50	05/18/18 06:33
1,2,3-Trichlorobenzene	U		8.3	28	µg/L	50	05/18/18 06:33
1,2,3-Trichloropropane	U		5.5	20	µg/L	50	05/18/18 06:33
1,2,4-Trichlorobenzene	U		11	36	µg/L	50	05/18/18 06:33
1,2,4-Trimethylbenzene	**970**		**19**	**62**	**µg/L**	50	05/18/18 06:33
1,2-Dibromo-3-chloropropane	U		49	160	µg/L	50	05/18/18 06:33
1,2-Dibromoethane	U		49	160	µg/L	50	05/18/18 06:33
1,2-Dichlorobenzene	U		11	36	µg/L	50	05/18/18 06:33
1,2-Dichloroethane	U		8.3	28	µg/L	50	05/18/18 06:33
1,2-Dichloropropane	U		12	42	µg/L	50	05/18/18 06:33
1,3,5-Trimethylbenzene	**270**		**14**	**48**	**µg/L**	50	05/18/18 06:33
1,3-Dichlorobenzene	U		14	48	µg/L	50	05/18/18 06:33
1,3-Dichloropropane	U		9.2	30	µg/L	50	05/18/18 06:33
1,4-Dichlorobenzene	U		11	36	µg/L	50	05/18/18 06:33
2,2-Dichloropropane	U		22	74	µg/L	50	05/18/18 06:33
2-Butanone	**2,000**		**29**	**98**	**µg/L**	50	05/18/18 06:33
2-Chlorotoluene	U		16	54	µg/L	50	05/18/18 06:33
2-Propanol	**N/A**		**0**		**µg/L**	50	05/18/18 06:33
4-Chlorotoluene	U		14	48	µg/L	50	05/18/18 06:33
4-Methyl-2-pentanone	**350**		**5.7**	**20**	**µg/L**	50	05/18/18 06:33
Acetone	**130**		**9.2**	**31**	**µg/L**	10	05/16/18 21:59
Benzene	U		15	50	µg/L	50	05/18/18 06:33
Bromobenzene	U		12	40	µg/L	50	05/18/18 06:33
Bromochloromethane	U		9.8	33	µg/L	50	05/18/18 06:33
Bromodichloromethane	U		12	39	µg/L	50	05/18/18 06:33
Bromoform	U		38	130	µg/L	50	05/18/18 06:33
Bromomethane	U		19	63	µg/L	50	05/18/18 06:33
Carbon tetrachloride	U		16	52	µg/L	50	05/18/18 06:33
Chlorobenzene	U		14	45	µg/L	50	05/18/18 06:33
Chloroethane	U		15	48	µg/L	50	05/18/18 06:33
Chloroform	U		13	43	µg/L	50	05/18/18 06:33
Chloromethane	U		8.6	28	µg/L	50	05/18/18 06:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: TW-1
Collection Date: 05/10/18 10:00 AM

Work Order: 1805785
Lab ID: 1805785-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**53**		**13**	**42**	**µg/L**	50	05/18/18 06:33
cis-1,3-Dichloropropene	U		20	66	µg/L	50	05/18/18 06:33
Dibromochloromethane	U		19	62	µg/L	50	05/18/18 06:33
Dibromomethane	U		12	42	µg/L	50	05/18/18 06:33
Dichlorodifluoromethane	U		6.6	22	µg/L	50	05/18/18 06:33
Diisopropyl ether	U		6.5	22	µg/L	50	05/18/18 06:33
Ethylbenzene	**1,300**		**20**	**67**	**µg/L**	50	05/18/18 06:33
Hexachlorobutadiene	U		12	40	µg/L	50	05/18/18 06:33
Isopropylbenzene	**84**		**16**	**52**	**µg/L**	50	05/18/18 06:33
m,p-Xylene	**5,000**		**49**	**160**	**µg/L**	50	05/18/18 06:33
Methyl tert-butyl ether	U		5.8	20	µg/L	50	05/18/18 06:33
Methylene chloride	U		28	92	µg/L	50	05/18/18 06:33
Naphthalene	**72**	B	**8.8**	**30**	**µg/L**	50	05/18/18 06:33
n-Butylbenzene	U		11	36	µg/L	50	05/18/18 06:33
n-Propylbenzene	**140**		**12**	**40**	**µg/L**	50	05/18/18 06:33
o-Xylene	**1,500**		**18**	**59**	**µg/L**	50	05/18/18 06:33
p-Isopropyltoluene	U		7.2	24	µg/L	50	05/18/18 06:33
sec-Butylbenzene	U		15	49	µg/L	50	05/18/18 06:33
Styrene	U		12	40	µg/L	50	05/18/18 06:33
tert-Butylbenzene	U		17	58	µg/L	50	05/18/18 06:33
Tetrachloroethene	U		14	46	µg/L	50	05/18/18 06:33
Toluene	**1,100**		**18**	**61**	**µg/L**	50	05/18/18 06:33
trans-1,2-Dichloroethene	U		14	46	µg/L	50	05/18/18 06:33
trans-1,3-Dichloropropene	U		41	140	µg/L	50	05/18/18 06:33
Trichloroethene	U		15	50	µg/L	50	05/18/18 06:33
Trichlorofluoromethane	U		10	33	µg/L	50	05/18/18 06:33
Vinyl chloride	U		10	34	µg/L	50	05/18/18 06:33
Xylenes, Total	**6,500**		**66**	**220**	**µg/L**	50	05/18/18 06:33
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	10	05/16/18 21:59
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	50	05/18/18 06:33
Surr: 4-Bromofluorobenzene	*106*			*80-110*	*%REC*	10	05/16/18 21:59
Surr: 4-Bromofluorobenzene	*95.0*			*80-110*	*%REC*	50	05/18/18 06:33
Surr: Dibromofluoromethane	*97.4*			*85-115*	*%REC*	10	05/16/18 21:59
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	50	05/18/18 06:33
Surr: Toluene-d8	*97.0*			*85-110*	*%REC*	10	05/16/18 21:59
Surr: Toluene-d8	*101*			*85-110*	*%REC*	50	05/18/18 06:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: DW
Collection Date: 05/10/18 10:50 AM

Work Order: 1805785
Lab ID: 1805785-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 12:39
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 12:39
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 12:39
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 12:39
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 12:39
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 12:39
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 12:39
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 12:39
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 12:39
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 12:39
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 12:39
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 12:39
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 12:39
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 12:39
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 12:39
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 12:39
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 12:39
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 12:39
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 12:39
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 12:39
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 12:39
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 12:39
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 12:39
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 12:39
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 12:39
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 12:39
Acetone	U		0.92	3.1	µg/L	1	05/17/18 12:39
Benzene	U		0.30	1.0	µg/L	1	05/17/18 12:39
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 12:39
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 12:39
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 12:39
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 12:39
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 12:39
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 12:39
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 12:39
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 12:39
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 12:39
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: DW
Collection Date: 05/10/18 10:50 AM

Work Order: 1805785
Lab ID: 1805785-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 12:39
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 12:39
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 12:39
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 12:39
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 12:39
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 12:39
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 12:39
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 12:39
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 12:39
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 12:39
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 12:39
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 12:39
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 12:39
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 12:39
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 12:39
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 12:39
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 12:39
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 12:39
Styrene	U		0.24	0.79	µg/L	1	05/17/18 12:39
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 12:39
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 12:39
Toluene	U		0.37	1.2	µg/L	1	05/17/18 12:39
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 12:39
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 12:39
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 12:39
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 12:39
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 12:39
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 12:39
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	1	05/17/18 12:39
Surr: 4-Bromofluorobenzene	*91.0*			*80-110*	*%REC*	1	05/17/18 12:39
Surr: Dibromofluoromethane	*98.8*			*85-115*	*%REC*	1	05/17/18 12:39
Surr: Toluene-d8	*98.4*			*85-110*	*%REC*	1	05/17/18 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-2
Collection Date: 05/10/18 09:35 AM

Work Order: 1805785
Lab ID: 1805785-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 01:04
1,1,1-Trichloroethane	**30**		**0.36**	**1.2**	**µg/L**	1	05/17/18 01:04
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 01:04
1,1,2-Trichloroethane	**3.3**		**0.40**	**1.3**	**µg/L**	1	05/17/18 01:04
1,1-Dichloroethane	**37**		**0.31**	**1.0**	**µg/L**	1	05/17/18 01:04
1,1-Dichloroethene	**0.29**	J	**0.28**	**0.92**	**µg/L**	1	05/17/18 01:04
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 01:04
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 01:04
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 01:04
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:04
1,2,4-Trimethylbenzene	**0.70**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 01:04
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 01:04
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 01:04
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 01:04
1,2-Dichloroethane	**1.3**		**0.17**	**0.55**	**µg/L**	1	05/17/18 01:04
1,2-Dichloropropane	**2.0**		**0.25**	**0.83**	**µg/L**	1	05/17/18 01:04
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 01:04
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 01:04
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 01:04
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:04
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 01:04
2-Butanone	**34**		**0.58**	**2.0**	**µg/L**	1	05/17/18 01:04
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 01:04
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 01:04
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 01:04
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 01:04
Acetone	**88**		**0.92**	**3.1**	**µg/L**	1	05/17/18 01:04
Benzene	U		0.30	1.0	µg/L	1	05/17/18 01:04
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 01:04
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 01:04
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 01:04
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 01:04
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 01:04
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 01:04
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 01:04
Chloroethane	**9.3**		**0.29**	**0.97**	**µg/L**	1	05/17/18 01:04
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 01:04
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 01:04

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-2
Collection Date: 05/10/18 09:35 AM

Work Order: 1805785
Lab ID: 1805785-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**63**		**0.25**	**0.85**	**µg/L**	1	05/17/18 01:04
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 01:04
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 01:04
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 01:04
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 01:04
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 01:04
Ethylbenzene	**2.5**		**0.40**	**1.3**	**µg/L**	1	05/17/18 01:04
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 01:04
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 01:04
m,p-Xylene	**7.4**		**0.98**	**3.3**	**µg/L**	1	05/17/18 01:04
Methyl tert-butyl ether	**3.4**		**0.12**	**0.40**	**µg/L**	1	05/17/18 01:04
Methylene chloride	**2.8**		**0.56**	**1.8**	**µg/L**	1	05/17/18 01:04
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 01:04
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 01:04
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 01:04
o-Xylene	**3.7**		**0.35**	**1.2**	**µg/L**	1	05/17/18 01:04
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 01:04
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 01:04
Styrene	U		0.24	0.79	µg/L	1	05/17/18 01:04
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 01:04
Tetrachloroethene	**21**		**0.27**	**0.91**	**µg/L**	1	05/17/18 01:04
Toluene	**12**		**0.37**	**1.2**	**µg/L**	1	05/17/18 01:04
trans-1,2-Dichloroethene	**1.4**		**0.28**	**0.93**	**µg/L**	1	05/17/18 01:04
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 01:04
Trichloroethene	**12**		**0.30**	**0.99**	**µg/L**	1	05/17/18 01:04
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 01:04
Vinyl chloride	**7.1**		**0.20**	**0.68**	**µg/L**	1	05/17/18 01:04
Xylenes, Total	**11**		**1.3**	**4.4**	**µg/L**	1	05/17/18 01:04
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	1	05/17/18 01:04
Surr: 4-Bromofluorobenzene	*92.6*			*80-110*	*%REC*	1	05/17/18 01:04
Surr: Dibromofluoromethane	*85.4*			*85-115*	*%REC*	1	05/17/18 01:04
Surr: Toluene-d8	*97.0*			*85-110*	*%REC*	1	05/17/18 01:04

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-5
Collection Date: 05/10/18 11:00 AM

Work Order: 1805785
Lab ID: 1805785-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 03:10
1,1,1-Trichloroethane	**6.4**		**0.36**	**1.2**	**µg/L**	1	05/18/18 03:10
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 03:10
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 03:10
1,1-Dichloroethane	**71**		**0.31**	**1.0**	**µg/L**	1	05/18/18 03:10
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 03:10
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 03:10
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 03:10
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 03:10
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:10
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 03:10
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 03:10
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 03:10
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 03:10
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 03:10
1,2-Dichloropropane	**0.69**	J	**0.25**	**0.83**	**µg/L**	1	05/18/18 03:10
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 03:10
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 03:10
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 03:10
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:10
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 03:10
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 03:10
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 03:10
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 03:10
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 03:10
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 03:10
Acetone	U		0.92	3.1	µg/L	1	05/18/18 03:10
Benzene	**0.76**	J	**0.30**	**1.0**	**µg/L**	1	05/18/18 03:10
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 03:10
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 03:10
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 03:10
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 03:10
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 03:10
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 03:10
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 03:10
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 03:10
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 03:10
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 03:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-5
Collection Date: 05/10/18 11:00 AM

Work Order: 1805785
Lab ID: 1805785-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**48**		**0.25**	**0.85**	**µg/L**	1	05/18/18 03:10
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 03:10
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 03:10
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 03:10
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 03:10
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 03:10
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 03:10
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 03:10
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 03:10
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 03:10
Methyl tert-butyl ether	**1.8**		**0.12**	**0.40**	**µg/L**	1	05/18/18 03:10
Methylene chloride	**6.4**		**0.56**	**1.8**	**µg/L**	1	05/18/18 03:10
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 03:10
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 03:10
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 03:10
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 03:10
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 03:10
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 03:10
Styrene	U		0.24	0.79	µg/L	1	05/18/18 03:10
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 03:10
Tetrachloroethene	**1.4**		**0.27**	**0.91**	**µg/L**	1	05/18/18 03:10
Toluene	U		0.37	1.2	µg/L	1	05/18/18 03:10
trans-1,2-Dichloroethene	**0.94**		**0.28**	**0.93**	**µg/L**	1	05/18/18 03:10
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 03:10
Trichloroethene	**1.8**		**0.30**	**0.99**	**µg/L**	1	05/18/18 03:10
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 03:10
Vinyl chloride	**33**		**0.20**	**0.68**	**µg/L**	1	05/18/18 03:10
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 03:10
Surr: 1,2-Dichloroethane-d4	*94.4*			*75-120*	*%REC*	1	05/18/18 03:10
Surr: 4-Bromofluorobenzene	*97.8*			*80-110*	*%REC*	1	05/18/18 03:10
Surr: Dibromofluoromethane	*96.4*			*85-115*	*%REC*	1	05/18/18 03:10
Surr: Toluene-d8	*97.6*			*85-110*	*%REC*	1	05/18/18 03:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-7
Collection Date: 05/10/18 10:10 AM

Work Order: 1805785
Lab ID: 1805785-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 01:52
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 01:52
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 01:52
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 01:52
1,1-Dichloroethane	**23**		**0.31**	**1.0**	**µg/L**	1	05/17/18 01:52
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 01:52
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 01:52
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 01:52
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 01:52
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:52
1,2,4-Trimethylbenzene	**10**		**0.37**	**1.2**	**µg/L**	1	05/17/18 01:52
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 01:52
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 01:52
1,2-Dichlorobenzene	**1.2**		**0.22**	**0.73**	**µg/L**	1	05/17/18 01:52
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 01:52
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 01:52
1,3,5-Trimethylbenzene	**3.8**		**0.29**	**0.95**	**µg/L**	1	05/17/18 01:52
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 01:52
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 01:52
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:52
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 01:52
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 01:52
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 01:52
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 01:52
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 01:52
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 01:52
Acetone	**3.5**		**0.92**	**3.1**	**µg/L**	1	05/17/18 01:52
Benzene	**16**		**0.30**	**1.0**	**µg/L**	1	05/17/18 01:52
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 01:52
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 01:52
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 01:52
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 01:52
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 01:52
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 01:52
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 01:52
Chloroethane	**76**		**0.29**	**0.97**	**µg/L**	1	05/17/18 01:52
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 01:52
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 01:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-7
Collection Date: 05/10/18 10:10 AM

Work Order: 1805785
Lab ID: 1805785-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**5.1**		**0.25**	**0.85**	**µg/L**	1	05/17/18 01:52
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 01:52
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 01:52
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 01:52
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 01:52
Diisopropyl ether	**6.2**		**0.13**	**0.43**	**µg/L**	1	05/17/18 01:52
Ethylbenzene	**460**		**8.1**	**27**	**µg/L**	20	05/18/18 05:50
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 01:52
Isopropylbenzene	**2.5**		**0.31**	**1.0**	**µg/L**	1	05/17/18 01:52
m,p-Xylene	**620**		**20**	**65**	**µg/L**	20	05/18/18 05:50
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 01:52
Methylene chloride	**1.0**	J	**0.56**	**1.8**	**µg/L**	1	05/17/18 01:52
Naphthalene	**0.72**		**0.18**	**0.59**	**µg/L**	1	05/17/18 01:52
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 01:52
n-Propylbenzene	**1.4**		**0.24**	**0.81**	**µg/L**	1	05/17/18 01:52
o-Xylene	**250**		**7.1**	**24**	**µg/L**	20	05/18/18 05:50
p-Isopropyltoluene	**0.44**	J	**0.14**	**0.48**	**µg/L**	1	05/17/18 01:52
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 01:52
Styrene	U		0.24	0.79	µg/L	1	05/17/18 01:52
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 01:52
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 01:52
Toluene	**34**		**0.37**	**1.2**	**µg/L**	1	05/17/18 01:52
trans-1,2-Dichloroethene	**2.4**		**0.28**	**0.93**	**µg/L**	1	05/17/18 01:52
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 01:52
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 01:52
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 01:52
Vinyl chloride	**19**		**0.20**	**0.68**	**µg/L**	1	05/17/18 01:52
Xylenes, Total	**860**		**27**	**89**	**µg/L**	20	05/18/18 05:50
Surr: 1,2-Dichloroethane-d4	*107*			*75-120*	*%REC*	1	05/17/18 01:52
Surr: 1,2-Dichloroethane-d4	*97.8*			*75-120*	*%REC*	20	05/18/18 05:50
Surr: 4-Bromofluorobenzene	*104*			*80-110*	*%REC*	1	05/17/18 01:52
Surr: 4-Bromofluorobenzene	*94.0*			*80-110*	*%REC*	20	05/18/18 05:50
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	1	05/17/18 01:52
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	20	05/18/18 05:50
Surr: Toluene-d8	*94.7*			*85-110*	*%REC*	1	05/17/18 01:52
Surr: Toluene-d8	*96.0*			*85-110*	*%REC*	20	05/18/18 05:50

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-8
Collection Date: 05/10/18 09:30 AM

Work Order: 1805785
Lab ID: 1805785-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 02:17
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 02:17
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 02:17
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 02:17
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 02:17
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 02:17
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 02:17
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 02:17
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 02:17
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:17
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 02:17
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 02:17
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 02:17
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 02:17
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 02:17
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 02:17
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 02:17
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 02:17
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 02:17
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:17
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 02:17
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 02:17
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 02:17
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 02:17
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 02:17
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 02:17
Acetone	**3.1**	J	**0.92**	**3.1**	**µg/L**	1	05/17/18 02:17
Benzene	U		0.30	1.0	µg/L	1	05/17/18 02:17
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 02:17
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 02:17
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 02:17
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 02:17
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 02:17
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 02:17
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 02:17
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 02:17
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 02:17
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 02:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-8
Collection Date: 05/10/18 09:30 AM

Work Order: 1805785
Lab ID: 1805785-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 02:17
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 02:17
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 02:17
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 02:17
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 02:17
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 02:17
Ethylbenzene	**0.77**	J	**0.40**	**1.3**	**µg/L**	1	05/17/18 02:17
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 02:17
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 02:17
m,p-Xylene	**1.1**	J	**0.98**	**3.3**	**µg/L**	1	05/17/18 02:17
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 02:17
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 02:17
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 02:17
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 02:17
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 02:17
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 02:17
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 02:17
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 02:17
Styrene	U		0.24	0.79	µg/L	1	05/17/18 02:17
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 02:17
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 02:17
Toluene	**0.58**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 02:17
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 02:17
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 02:17
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 02:17
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 02:17
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 02:17
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 02:17
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	1	05/17/18 02:17
Surr: 4-Bromofluorobenzene	*91.0*			*80-110*	*%REC*	1	05/17/18 02:17
Surr: Dibromofluoromethane	*99.0*			*85-115*	*%REC*	1	05/17/18 02:17
Surr: Toluene-d8	*98.0*			*85-110*	*%REC*	1	05/17/18 02:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-9
Collection Date: 05/10/18 09:32 AM

Work Order: 1805785
Lab ID: 1805785-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 02:41
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 02:41
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 02:41
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 02:41
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 02:41
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 02:41
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 02:41
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 02:41
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 02:41
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:41
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 02:41
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 02:41
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 02:41
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 02:41
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 02:41
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 02:41
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 02:41
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 02:41
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 02:41
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:41
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 02:41
2-Butanone	**7.8**		**0.58**	**2.0**	**µg/L**	1	05/17/18 02:41
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 02:41
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 02:41
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 02:41
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 02:41
Acetone	**32**		**0.92**	**3.1**	**µg/L**	1	05/17/18 02:41
Benzene	U		0.30	1.0	µg/L	1	05/17/18 02:41
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 02:41
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 02:41
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 02:41
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 02:41
Bromomethane	**14**		**0.38**	**1.3**	**µg/L**	1	05/17/18 02:41
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 02:41
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 02:41
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 02:41
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 02:41
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 02:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-9
Collection Date: 05/10/18 09:32 AM

Work Order: 1805785
Lab ID: 1805785-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 02:41
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 02:41
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 02:41
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 02:41
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 02:41
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 02:41
Ethylbenzene	**0.50**	J	**0.40**	**1.3**	**µg/L**	1	05/17/18 02:41
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 02:41
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 02:41
m,p-Xylene	**1.2**	J	**0.98**	**3.3**	**µg/L**	1	05/17/18 02:41
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 02:41
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 02:41
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 02:41
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 02:41
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 02:41
o-Xylene	**0.50**	J	**0.35**	**1.2**	**µg/L**	1	05/17/18 02:41
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 02:41
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 02:41
Styrene	U		0.24	0.79	µg/L	1	05/17/18 02:41
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 02:41
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 02:41
Toluene	**3.2**		**0.37**	**1.2**	**µg/L**	1	05/17/18 02:41
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 02:41
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 02:41
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 02:41
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 02:41
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 02:41
Xylenes, Total	**1.7**	J	**1.3**	**4.4**	**µg/L**	1	05/17/18 02:41
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	1	05/17/18 02:41
Surr: 4-Bromofluorobenzene	*93.6*			*80-110*	*%REC*	1	05/17/18 02:41
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	05/17/18 02:41
Surr: Toluene-d8	*98.8*			*85-110*	*%REC*	1	05/17/18 02:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-12
Collection Date: 05/10/18 09:55 AM

Work Order: 1805785
Lab ID: 1805785-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		2.2	7.4	µg/L	10	05/17/18 03:05
1,1,1-Trichloroethane	**2,600**		**360**	**1,200**	**µg/L**	1000	05/18/18 06:06
1,1,2,2-Tetrachloroethane	U		1.9	6.2	µg/L	10	05/17/18 03:05
1,1,2-Trichloroethane	**180**		**4.0**	**13**	**µg/L**	10	05/17/18 03:05
1,1-Dichloroethane	**1,600**		**310**	**1,000**	**µg/L**	1000	05/18/18 06:06
1,1-Dichloroethene	**250**		**2.8**	**9.2**	**µg/L**	10	05/17/18 03:05
1,1-Dichloropropene	U		3.5	12	µg/L	10	05/17/18 03:05
1,2,3-Trichlorobenzene	U		1.7	5.5	µg/L	10	05/17/18 03:05
1,2,3-Trichloropropane	U		1.1	4.0	µg/L	10	05/17/18 03:05
1,2,4-Trichlorobenzene	U		2.1	7.1	µg/L	10	05/17/18 03:05
1,2,4-Trimethylbenzene	**280**		**3.7**	**12**	**µg/L**	10	05/17/18 03:05
1,2-Dibromo-3-chloropropane	U		9.7	32	µg/L	10	05/17/18 03:05
1,2-Dibromoethane	U		9.8	33	µg/L	10	05/17/18 03:05
1,2-Dichlorobenzene	**7.4**		**2.2**	**7.3**	**µg/L**	10	05/17/18 03:05
1,2-Dichloroethane	**210**		**1.7**	**5.5**	**µg/L**	10	05/17/18 03:05
1,2-Dichloropropane	**92**		**2.5**	**8.3**	**µg/L**	10	05/17/18 03:05
1,3,5-Trimethylbenzene	**82**		**2.9**	**9.5**	**µg/L**	10	05/17/18 03:05
1,3-Dichlorobenzene	U		2.9	9.6	µg/L	10	05/17/18 03:05
1,3-Dichloropropane	U		1.8	6.1	µg/L	10	05/17/18 03:05
1,4-Dichlorobenzene	U		2.1	7.1	µg/L	10	05/17/18 03:05
2,2-Dichloropropane	U		4.4	15	µg/L	10	05/17/18 03:05
2-Butanone	**16,000**		**580**	**2,000**	**µg/L**	1000	05/18/18 06:06
2-Chlorotoluene	U		3.2	11	µg/L	10	05/17/18 03:05
2-Propanol	**N/A**		**0**		**µg/L**	10	05/17/18 03:05
4-Chlorotoluene	U		2.8	9.5	µg/L	10	05/17/18 03:05
4-Methyl-2-pentanone	**6,900**		**110**	**400**	**µg/L**	1000	05/18/18 06:06
Acetone	**80,000**		**920**	**3,100**	**µg/L**	1000	05/18/18 06:06
Benzene	**97**		**3.0**	**10**	**µg/L**	10	05/17/18 03:05
Bromobenzene	U		2.4	8.0	µg/L	10	05/17/18 03:05
Bromochloromethane	U		2.0	6.6	µg/L	10	05/17/18 03:05
Bromodichloromethane	U		2.3	7.8	µg/L	10	05/17/18 03:05
Bromoform	U		7.7	26	µg/L	10	05/17/18 03:05
Bromomethane	U		3.8	13	µg/L	10	05/17/18 03:05
Carbon tetrachloride	U		3.1	10	µg/L	10	05/17/18 03:05
Chlorobenzene	U		2.7	9.0	µg/L	10	05/17/18 03:05
Chloroethane	**260**		**2.9**	**9.7**	**µg/L**	10	05/17/18 03:05
Chloroform	**56**		**2.6**	**8.6**	**µg/L**	10	05/17/18 03:05
Chloromethane	U		1.7	5.7	µg/L	10	05/17/18 03:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: RW-12
Collection Date: 05/10/18 09:55 AM

Work Order: 1805785
Lab ID: 1805785-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**9,000**		**250**	**850**	**µg/L**	1000	05/18/18 06:06
cis-1,3-Dichloropropene	U		3.9	13	µg/L	10	05/17/18 03:05
Dibromochloromethane	U		3.8	12	µg/L	10	05/17/18 03:05
Dibromomethane	U		2.5	8.3	µg/L	10	05/17/18 03:05
Dichlorodifluoromethane	U		1.3	4.4	µg/L	10	05/17/18 03:05
Diisopropyl ether	**19**		**1.3**	**4.3**	**µg/L**	10	05/17/18 03:05
Ethylbenzene	**4,100**		**400**	**1,300**	**µg/L**	1000	05/18/18 06:06
Hexachlorobutadiene	U		2.4	8.0	µg/L	10	05/17/18 03:05
Isopropylbenzene	**37**		**3.1**	**10**	**µg/L**	10	05/17/18 03:05
m,p-Xylene	**11,000**		**980**	**3,300**	**µg/L**	1000	05/18/18 06:06
Methyl tert-butyl ether	**6.1**		**1.2**	**4.0**	**µg/L**	10	05/17/18 03:05
Methylene chloride	**2,400**		**560**	**1,800**	**µg/L**	1000	05/18/18 06:06
Naphthalene	**26**		**1.8**	**5.9**	**µg/L**	10	05/17/18 03:05
n-Butylbenzene	**5.3**	J	**2.2**	**7.3**	**µg/L**	10	05/17/18 03:05
n-Propylbenzene	**41**		**2.4**	**8.1**	**µg/L**	10	05/17/18 03:05
o-Xylene	**3,600**		**350**	**1,200**	**µg/L**	1000	05/18/18 06:06
p-Isopropyltoluene	**2.2**	J	**1.4**	**4.8**	**µg/L**	10	05/17/18 03:05
sec-Butylbenzene	U		2.9	9.8	µg/L	10	05/17/18 03:05
Styrene	**34**		**2.4**	**7.9**	**µg/L**	10	05/17/18 03:05
tert-Butylbenzene	U		3.4	12	µg/L	10	05/17/18 03:05
Tetrachloroethene	**190**		**2.7**	**9.1**	**µg/L**	10	05/17/18 03:05
Toluene	**62,000**		**370**	**1,200**	**µg/L**	1000	05/18/18 06:06
trans-1,2-Dichloroethene	**16**		**2.8**	**9.3**	**µg/L**	10	05/17/18 03:05
trans-1,3-Dichloropropene	U		8.2	27	µg/L	10	05/17/18 03:05
Trichloroethene	**490**		**3.0**	**9.9**	**µg/L**	10	05/17/18 03:05
Trichlorofluoromethane	U		2.0	6.6	µg/L	10	05/17/18 03:05
Vinyl chloride	**540**		**2.0**	**6.8**	**µg/L**	10	05/17/18 03:05
Xylenes, Total	**15,000**		**1,300**	**4,400**	**µg/L**	1000	05/18/18 06:06
Surr: 1,2-Dichloroethane-d4	*112*			*75-120*	*%REC*	10	05/17/18 03:05
Surr: 1,2-Dichloroethane-d4	*99.6*			*75-120*	*%REC*	1000	05/18/18 06:06
Surr: 4-Bromofluorobenzene	*107*			*80-110*	*%REC*	10	05/17/18 03:05
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1000	05/18/18 06:06
Surr: Dibromofluoromethane	*122*	S		*85-115*	*%REC*	10	05/17/18 03:05
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1000	05/18/18 06:06
Surr: Toluene-d8	*116*	S		*85-110*	*%REC*	10	05/17/18 03:05
Surr: Toluene-d8	*97.9*			*85-110*	*%REC*	1000	05/18/18 06:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/10/18

Work Order: 1805785
Lab ID: 1805785-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 12:15
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 12:15
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 12:15
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 12:15
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 12:15
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 12:15
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 12:15
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 12:15
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 12:15
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 12:15
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 12:15
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 12:15
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 12:15
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 12:15
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 12:15
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 12:15
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 12:15
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 12:15
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 12:15
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 12:15
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 12:15
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 12:15
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 12:15
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 12:15
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 12:15
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 12:15
Acetone	U		0.92	3.1	µg/L	1	05/17/18 12:15
Benzene	U		0.30	1.0	µg/L	1	05/17/18 12:15
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 12:15
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 12:15
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 12:15
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 12:15
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 12:15
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 12:15
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 12:15
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 12:15
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 12:15
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 12:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/10/18

Work Order: 1805785
Lab ID: 1805785-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 12:15
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 12:15
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 12:15
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 12:15
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 12:15
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 12:15
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 12:15
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 12:15
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 12:15
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 12:15
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 12:15
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 12:15
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 12:15
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 12:15
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 12:15
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 12:15
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 12:15
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 12:15
Styrene	U		0.24	0.79	µg/L	1	05/17/18 12:15
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 12:15
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 12:15
Toluene	U		0.37	1.2	µg/L	1	05/17/18 12:15
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 12:15
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 12:15
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 12:15
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 12:15
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 12:15
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 12:15
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	05/17/18 12:15
Surr: 4-Bromofluorobenzene	*91.5*			*80-110*	*%REC*	1	05/17/18 12:15
Surr: Dibromofluoromethane	*96.2*			*85-115*	*%REC*	1	05/17/18 12:15
Surr: Toluene-d8	*98.6*			*85-110*	*%REC*	1	05/17/18 12:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.

Work Order: 1805785

Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236070** Instrument ID **GC10** Method: **RSK-175**

MBLK Sample ID: **RBLK1-180516-R236070** Units: **µg/L** Analysis Date: **05/16/18 03:06 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038161** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	U	0.21	5.0								
Ethene	U	0.41	5.0								
Methane	U	0.64	5.0								

LCS Sample ID: **RLCS1-180516-R236070** Units: **µg/L** Analysis Date: **05/16/18 04:29 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038179** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	40.82	0.21	5.0	36.1	0	113	75-125	0			
Ethene	36.77	0.41	5.0	33.7	0	109	75-125	0			
Methane	20.35	0.64	5.0	19.2	0	106	75-125	0			

MS Sample ID: **1805786-23B MS** Units: **µg/L** Analysis Date: **05/16/18 05:19 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038184** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	39.56	0.21	5.0	36.1	0	110	70-130	0			
Ethene	35.33	0.41	5.0	33.7	3.8	93.6	70-130	0			
Methane	35.11	0.64	5.0	19.2	9.81	132	70-130	0			S

MSD Sample ID: **1805786-23B MSD** Units: **µg/L** Analysis Date: **05/16/18 05:22 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038185** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	45.56	0.21	5.0	36.1	0	126	70-130	39.56	14.1	30	
Ethene	38.97	0.41	5.0	33.7	3.8	104	70-130	35.33	9.8	30	
Methane	26.47	0.64	5.0	19.2	9.81	86.8	70-130	35.11	28.1	30	

The following samples were analyzed in this batch: 1805785-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **118350** Instrument ID **ICPMS3** Method: **SW6020A**

MBLK Sample ID: **MBLK-118340-118350** Units: **mg/L** Analysis Date: **05/15/18 03:53 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035365** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	U	0.015	0.080								
Manganese	U	0.00026	0.0050								

MBLK Sample ID: **MBLK-118350-118350** Units: **mg/L** Analysis Date: **05/15/18 04:24 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035383** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	U	0.015	0.080								
Manganese	U	0.00026	0.0050								

LCS Sample ID: **LCS-118340-118350** Units: **mg/L** Analysis Date: **05/15/18 03:55 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035366** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.92	0.015	0.080	10	0	109	80-120	0			
Manganese	0.1076	0.00026	0.0050	0.1	0	108	80-120	0			

LCS Sample ID: **LCS-118350-118350** Units: **mg/L** Analysis Date: **05/15/18 04:26 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035384** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.2	0.015	0.080	10	0	102	80-120	0			
Manganese	0.09999	0.00026	0.0050	0.1	0	100	80-120	0			

MS Sample ID: **1805746-01CMS** Units: **mg/L** Analysis Date: **05/15/18 04:58 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035403** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.34	0.015	0.080	10	1.722	96.2	75-125	0			
Manganese	0.4287	0.00026	0.0050	0.1	0.3305	98.1	75-125	0			

MSD Sample ID: **1805746-01CMSD** Units: **mg/L** Analysis Date: **05/15/18 05:00 PM**
Client ID: Run ID: **ICPMS3_180515A** SeqNo: **5035404** Prep Date: **05/15/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.8	0.015	0.080	10	1.722	101	75-125	11.34	3.96	20	
Manganese	0.4273	0.00026	0.0050	0.1	0.3305	96.7	75-125	0.4287	0.33	20	

The following samples were analyzed in this batch: 1805785-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180516-R236015** Units: **µg/L** Analysis Date: **05/16/18 03:33 PM**
Client ID: Run ID: **VMS10_180516A** SeqNo: **5086869** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.46*	0	0	*20*	0	*102*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.43*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.46*	0	0	*20*	0	*97.3*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180516-R236015** Units: **µg/L** Analysis Date: **05/16/18 02:45 PM**
Client ID: Run ID: **VMS10_180516A** SeqNo: **5086868** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	22.45	0.22	0.74	20	0	112	73-114	0			
1,1,1-Trichloroethane	22.22	0.36	1.2	20	0	111	75-130	0			
1,1,2,2-Tetrachloroethane	25.19	0.19	0.62	20	0	126	75-130	0			
1,1,2-Trichloroethane	22.69	0.4	1.3	20	0	113	75-125	0			
1,1-Dichloroethane	24.46	0.31	1.0	20	0	122	75-133	0			
1,1-Dichloroethene	20.83	0.28	0.92	20	0	104	70-145	0			
1,1-Dichloropropene	21.04	0.35	1.2	20	0	105	75-135	0			
1,2,3-Trichlorobenzene	21.25	0.17	0.55	20	0	106	70-140	0			
1,2,3-Trichloropropane	22.63	0.11	0.40	20	0	113	75-125	0			
1,2,4-Trichlorobenzene	21.61	0.21	0.71	20	0	108	70-135	0			
1,2,4-Trimethylbenzene	21.58	0.37	1.2	20	0	108	75-130	0			
1,2-Dibromo-3-chloropropane	23.75	0.97	3.2	20	0	119	60-130	0			
1,2-Dibromoethane	25.98	0.98	3.3	20	0	130	90-195	0			
1,2-Dichlorobenzene	22.01	0.22	0.73	20	0	110	70-130	0			
1,2-Dichloroethane	21.5	0.17	0.55	20	0	108	78-125	0			
1,2-Dichloropropane	23.12	0.25	0.83	20	0	116	75-125	0			
1,3,5-Trimethylbenzene	22.45	0.29	0.95	20	0	112	75-130	0			
1,3-Dichlorobenzene	22.16	0.29	0.96	20	0	111	75-130	0			
1,3-Dichloropropane	22.19	0.18	0.61	20	0	111	75-125	0			
1,4-Dichlorobenzene	22.13	0.21	0.71	20	0	111	75-130	0			
2,2-Dichloropropane	24.6	0.44	1.5	20	0	123	43-150	0			
2-Butanone	22.73	0.58	2.0	20	0	114	55-150	0			
2-Chlorotoluene	22.62	0.32	1.1	20	0	113	84-133	0			
4-Chlorotoluene	22.05	0.28	0.95	20	0	110	80-125	0			
4-Methyl-2-pentanone	35.43	0.11	0.40	20	0	177	77-178	0			
Acetone	19.54	0.92	3.1	20	0	97.7	60-160	0			
Benzene	22.22	0.3	1.0	20	0	111	85-125	0			
Bromobenzene	22.8	0.24	0.80	20	0	114	80-125	0			
Bromochloromethane	24.22	0.2	0.66	20	0	121	72-141	0			
Bromodichloromethane	22.52	0.23	0.78	20	0	113	75-125	0			
Bromoform	21.45	0.77	2.6	20	0	107	60-125	0			
Bromomethane	16.52	0.38	1.3	20	0	82.6	30-185	0			
Carbon tetrachloride	22.09	0.31	1.0	20	0	110	65-140	0			
Chlorobenzene	21.53	0.27	0.90	20	0	108	80-120	0			
Chloroethane	22.97	0.29	0.97	20	0	115	50-140	0			
Chloroform	22.94	0.26	0.86	20	0	115	80-130	0			
Chloromethane	23.77	0.17	0.57	20	0	119	46-148	0			
cis-1,2-Dichloroethene	25.15	0.25	0.85	20	0	126	75-134	0			
cis-1,3-Dichloropropene	23.13	0.39	1.3	20	0	116	70-130	0			
Dibromochloromethane	21.97	0.38	1.2	20	0	110	60-115	0			
Dibromomethane	22.15	0.25	0.83	20	0	111	85-125	0			
Dichlorodifluoromethane	17.63	0.13	0.44	20	0	88.2	20-120	0			
Ethylbenzene	21.5	0.4	1.3	20	0	108	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015**	Instrument ID **VMS10**			Method: **SW8260C**					
Hexachlorobutadiene	23.76	0.24	0.80	20	0	119	70-155	0	
Isopropylbenzene	21.94	0.31	1.0	20	0	110	80-127	0	
m,p-Xylene	43.53	0.98	3.3	40	0	109	75-130	0	
Methyl tert-butyl ether	26.9	0.12	0.40	20	0	134	80-130	0	S
Methylene chloride	21.82	0.56	1.8	20	0	109	75-140	0	
Naphthalene	22.28	0.18	0.59	20	0	111	55-160	0	
n-Butylbenzene	23.63	0.22	0.73	20	0	118	75-145	0	
n-Propylbenzene	22.26	0.24	0.81	20	0	111	83-135	0	
o-Xylene	21.99	0.35	1.2	20	0	110	80-125	0	
p-Isopropyltoluene	22.22	0.14	0.48	20	0	111	61-164	0	
sec-Butylbenzene	22.37	0.29	0.98	20	0	112	80-134	0	
Styrene	22.83	0.24	0.79	20	0	114	83-137	0	
tert-Butylbenzene	23.99	0.34	1.2	20	0	120	70-130	0	
Tetrachloroethene	21.22	0.27	0.91	20	0	106	68-166	0	
Toluene	21.07	0.37	1.2	20	0	105	76-125	0	
trans-1,2-Dichloroethene	24.76	0.28	0.93	20	0	124	80-140	0	
trans-1,3-Dichloropropene	22.86	0.82	2.7	20	0	114	56-132	0	
Trichloroethene	21.01	0.3	0.99	20	0	105	84-130	0	
Trichlorofluoromethane	22.09	0.2	0.66	20	0	110	60-140	0	
Vinyl chloride	21.32	0.2	0.68	20	0	107	50-136	0	
Xylenes, Total	65.52	1.3	4.4	60	0	109	80-126	0	
Surr: 1,2-Dichloroethane-d4	*20.6*	0	0	*20*	0	*103*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*20.25*	0	0	*20*	0	*101*	*80-110*	0	
Surr: Dibromofluoromethane	*21*	0	0	*20*	0	*105*	*85-115*	0	
Surr: Toluene-d8	*19.71*	0	0	*20*	0	*98.6*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/16/18 10:15 PM**
Client ID: **TW-1** Run ID: **VMS10_180516A** SeqNo: **5086880** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	214.5	2.2	7.4	200	0	107	73-114	0			
1,1,1-Trichloroethane	264.4	3.6	12	200	32.5	116	75-130	0			
1,1,2,2-Tetrachloroethane	236.4	1.9	6.2	200	0	118	75-130	0			
1,1,2-Trichloroethane	219.5	4	13	200	0	110	75-125	0			
1,1-Dichloroethane	383.8	3.1	10	200	155.7	114	75-133	0			
1,1-Dichloroethene	224.1	2.8	9.2	200	0	112	70-145	0			
1,1-Dichloropropene	228.7	3.5	12	200	0	114	75-135	0			
1,2,3-Trichlorobenzene	204.7	1.7	5.5	200	0	102	70-140	0			
1,2,3-Trichloropropane	224	1.1	4.0	200	0	112	75-125	0			
1,2,4-Trichlorobenzene	197.9	2.1	7.1	200	0	99	70-135	0			
1,2,4-Trimethylbenzene	1799	3.7	12	200	1631	83.8	75-130	0			EO
1,2-Dibromo-3-chloropropane	211.8	9.7	32	200	0	106	60-130	0			
1,2-Dibromoethane	250.7	9.8	33	200	0	125	90-195	0			
1,2-Dichlorobenzene	248.3	2.2	7.3	200	42.3	103	70-130	0			
1,2-Dichloroethane	222.1	1.7	5.5	200	0	111	78-125	0			
1,2-Dichloropropane	231.2	2.5	8.3	200	0	116	75-125	0			
1,3,5-Trimethylbenzene	702.9	2.9	9.5	200	438.1	132	75-130	0			S
1,3-Dichlorobenzene	212.6	2.9	9.6	200	0	106	75-130	0			
1,3-Dichloropropane	213.5	1.8	6.1	200	0	107	75-125	0			
1,4-Dichlorobenzene	214.6	2.1	7.1	200	0	107	75-130	0			
2,2-Dichloropropane	215.2	4.4	15	200	0	108	43-150	0			
2-Butanone	342.3	5.8	20	200	116.3	113	55-150	0			
2-Chlorotoluene	509.7	3.2	11	200	0	255	84-133	0			S
4-Chlorotoluene	279.2	2.8	9.5	200	0	140	80-125	0			S
4-Methyl-2-pentanone	334.5	1.1	4.0	200	0	167	77-178	0			
Acetone	327.6	9.2	31	200	133.8	96.9	60-160	0			
Benzene	235	3	10	200	0	118	85-125	0			
Bromobenzene	246.6	2.4	8.0	200	0	123	80-125	0			
Bromochloromethane	246.6	2	6.6	200	0	123	72-141	0			
Bromodichloromethane	210.6	2.3	7.8	200	0	105	75-125	0			
Bromoform	185.2	7.7	26	200	0	92.6	60-125	0			
Bromomethane	159.3	3.8	13	200	0	79.6	30-185	0			
Carbon tetrachloride	232.5	3.1	10	200	0	116	65-140	0			
Chlorobenzene	210.4	2.7	9.0	200	0	105	80-120	0			
Chloroethane	250.7	2.9	9.7	200	11.8	119	50-140	0			
Chloroform	228	2.6	8.6	200	0	114	80-130	0			
Chloromethane	267.3	1.7	5.7	200	0	134	46-148	0			
cis-1,2-Dichloroethene	339.3	2.5	8.5	200	188.5	75.4	75-134	0			
cis-1,3-Dichloropropene	222.9	3.9	13	200	0	111	70-130	0			
Dibromochloromethane	190	3.8	12	200	0	95	60-115	0			
Dibromomethane	221.6	2.5	8.3	200	0	111	85-125	0			
Dichlorodifluoromethane	232.7	1.3	4.4	200	82.4	75.2	20-120	0			
Ethylbenzene	2263	4	13	200	2179	42.1	76-123	0			SEO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

Hexachlorobutadiene	220.5	2.4	8.0	200	0	110	70-155	0	
Isopropylbenzene	377.7	3.1	10	200	149.9	114	80-127	0	
m,p-Xylene	7989	9.8	33	400	8149	-40	75-130	0	SEO
Methyl tert-butyl ether	257.6	1.2	4.0	200	0	129	80-130	0	
Methylene chloride	219.5	5.6	18	200	0	110	75-140	0	
Naphthalene	331.8	1.8	5.9	200	119	106	55-160	0	
n-Butylbenzene	268.2	2.2	7.3	200	0	134	75-145	0	
n-Propylbenzene	507.5	2.4	8.1	200	280.6	113	83-135	0	
o-Xylene	2392	3.5	12	200	2288	52	80-125	0	SEO
p-Isopropyltoluene	229.5	1.4	4.8	200	9.6	110	61-164	0	
sec-Butylbenzene	251.9	2.9	9.8	200	9.1	121	80-134	0	
Styrene	299	2.4	7.9	200	0	150	83-137	0	S
tert-Butylbenzene	237.9	3.4	12	200	0	119	70-130	0	
Tetrachloroethene	231.2	2.7	9.1	200	15.7	108	68-166	0	
Toluene	852	3.7	12	200	700	76	76-125	0	
trans-1,2-Dichloroethene	258.4	2.8	9.3	200	0	129	80-140	0	
trans-1,3-Dichloropropene	202.7	8.2	27	200	0	101	56-132	0	
Trichloroethene	233.4	3	9.9	200	0	117	84-130	0	
Trichlorofluoromethane	257.5	2	6.6	200	0	129	60-140	0	
Vinyl chloride	322	2	6.8	200	83.9	119	50-136	0	
Xylenes, Total	10380	13	44	600	10440	-9.33	80-126	0	SEO
Surr: 1,2-Dichloroethane-d4	*208*	0	0	*200*	0	*104*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*205.4*	0	0	*200*	0	*103*	*80-110*	0	
Surr: Dibromofluoromethane	*218.6*	0	0	*200*	0	*109*	*85-115*	0	
Surr: Toluene-d8	*191.2*	0	0	*200*	0	*95.6*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/16/18 10:31 PM**
Client ID: **TW-1** Run ID: **VMS10_180516A** SeqNo: **5086881** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	233.4	2.2	7.4	200	0	117	73-114	214.5	8.44	30	S
1,1,1-Trichloroethane	268.5	3.6	12	200	32.5	118	75-130	264.4	1.54	30	
1,1,2,2-Tetrachloroethane	245.3	1.9	6.2	200	0	123	75-130	236.4	3.7	30	
1,1,2-Trichloroethane	228.5	4	13	200	0	114	75-125	219.5	4.02	30	
1,1-Dichloroethane	405	3.1	10	200	155.7	125	75-133	383.8	5.38	30	
1,1-Dichloroethene	238.2	2.8	9.2	200	0	119	70-145	224.1	6.1	30	
1,1-Dichloropropene	238.9	3.5	12	200	0	119	75-135	228.7	4.36	30	
1,2,3-Trichlorobenzene	213.3	1.7	5.5	200	0	107	70-140	204.7	4.11	30	
1,2,3-Trichloropropane	241	1.1	4.0	200	0	120	75-125	224	7.31	30	
1,2,4-Trichlorobenzene	207.2	2.1	7.1	200	0	104	70-135	197.9	4.59	30	
1,2,4-Trimethylbenzene	1866	3.7	12	200	1631	118	75-130	1799	3.69	30	EO
1,2-Dibromo-3-chloropropane	214.7	9.7	32	200	0	107	60-130	211.8	1.36	30	
1,2-Dibromoethane	265.9	9.8	33	200	0	133	90-195	250.7	5.88	30	
1,2-Dichlorobenzene	256.2	2.2	7.3	200	42.3	107	70-130	248.3	3.13	30	
1,2-Dichloroethane	229.4	1.7	5.5	200	0	115	78-125	222.1	3.23	30	
1,2-Dichloropropane	241.2	2.5	8.3	200	0	121	75-125	231.2	4.23	30	
1,3,5-Trimethylbenzene	740.2	2.9	9.5	200	438.1	151	75-130	702.9	5.17	30	S
1,3-Dichlorobenzene	219.4	2.9	9.6	200	0	110	75-130	212.6	3.15	30	
1,3-Dichloropropane	227.4	1.8	6.1	200	0	114	75-125	213.5	6.31	30	
1,4-Dichlorobenzene	223.7	2.1	7.1	200	0	112	75-130	214.6	4.15	30	
2,2-Dichloropropane	233.9	4.4	15	200	0	117	43-150	215.2	8.33	30	
2-Butanone	370.3	5.8	20	200	116.3	127	55-150	342.3	7.86	30	
2-Chlorotoluene	546.6	3.2	11	200	0	273	84-133	509.7	6.99	30	S
4-Chlorotoluene	282.6	2.8	9.5	200	0	141	80-125	279.2	1.21	30	S
4-Methyl-2-pentanone	357.3	1.1	4.0	200	0	179	77-178	334.5	6.59	30	S
Acetone	356.6	9.2	31	200	133.8	111	60-160	327.6	8.48	30	
Benzene	245	3	10	200	0	122	85-125	235	4.17	30	
Bromobenzene	253.3	2.4	8.0	200	0	127	80-125	246.6	2.68	30	S
Bromochloromethane	264.6	2	6.6	200	0	132	72-141	246.6	7.04	30	
Bromodichloromethane	223.6	2.3	7.8	200	0	112	75-125	210.6	5.99	30	
Bromoform	198.1	7.7	26	200	0	99	60-125	185.2	6.73	30	
Bromomethane	164.3	3.8	13	200	0	82.2	30-185	159.3	3.09	30	
Carbon tetrachloride	236.5	3.1	10	200	0	118	65-140	232.5	1.71	30	
Chlorobenzene	223.8	2.7	9.0	200	0	112	80-120	210.4	6.17	30	
Chloroethane	268.5	2.9	9.7	200	11.8	128	50-140	250.7	6.86	30	
Chloroform	245.1	2.6	8.6	200	0	123	80-130	228	7.23	30	
Chloromethane	294.3	1.7	5.7	200	0	147	46-148	267.3	9.62	30	
cis-1,2-Dichloroethene	344.8	2.5	8.5	200	188.5	78.2	75-134	339.3	1.61	30	
cis-1,3-Dichloropropene	232.2	3.9	13	200	0	116	70-130	222.9	4.09	30	
Dibromochloromethane	204.8	3.8	12	200	0	102	60-115	190	7.5	30	
Dibromomethane	226.9	2.5	8.3	200	0	113	85-125	221.6	2.36	30	
Dichlorodifluoromethane	246.9	1.3	4.4	200	82.4	82.2	20-120	232.7	5.92	30	
Ethylbenzene	2383	4	13	200	2179	102	76-123	2263	5.18	30	EO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015**	Instrument ID **VMS10**				Method: **SW8260C**						
Hexachlorobutadiene	218	2.4	8.0	200	0	109	70-155	220.5	1.14	30	
Isopropylbenzene	396.2	3.1	10	200	149.9	123	80-127	377.7	4.78	30	
m,p-Xylene	8298	9.8	33	400	8149	37.4	75-130	7989	3.8	30	SEO
Methyl tert-butyl ether	280.7	1.2	4.0	200	0	140	80-130	257.6	8.58	30	S
Methylene chloride	239.1	5.6	18	200	0	120	75-140	219.5	8.55	30	
Naphthalene	342	1.8	5.9	200	119	112	55-160	331.8	3.03	30	
n-Butylbenzene	278.6	2.2	7.3	200	0	139	75-145	268.2	3.8	30	
n-Propylbenzene	528.4	2.4	8.1	200	280.6	124	83-135	507.5	4.04	30	
o-Xylene	2516	3.5	12	200	2288	114	80-125	2392	5.03	30	EO
p-Isopropyltoluene	234.3	1.4	4.8	200	9.6	112	61-164	229.5	2.07	30	
sec-Butylbenzene	260.8	2.9	9.8	200	9.1	126	80-134	251.9	3.47	30	
Styrene	312.9	2.4	7.9	200	0	156	83-137	299	4.54	30	S
tert-Butylbenzene	239.6	3.4	12	200	0	120	70-130	237.9	0.712	30	
Tetrachloroethene	241.4	2.7	9.1	200	15.7	113	68-166	231.2	4.32	30	
Toluene	892.2	3.7	12	200	700	96.1	76-125	852	4.61	30	
trans-1,2-Dichloroethene	277	2.8	9.3	200	0	138	80-140	258.4	6.95	30	
trans-1,3-Dichloropropene	219	8.2	27	200	0	110	56-132	202.7	7.73	30	
Trichloroethene	236.4	3	9.9	200	0	118	84-130	233.4	1.28	30	
Trichlorofluoromethane	277.2	2	6.6	200	0	139	60-140	257.5	7.37	30	
Vinyl chloride	340.7	2	6.8	200	83.9	128	50-136	322	5.64	30	
Xylenes, Total	10810	13	44	600	10440	62.8	80-126	10380	4.09	30	SEO
Surr: 1,2-Dichloroethane-d4	*210.6*	0	0	*200*	0	*105*	*75-120*	208	*1.24*	*30*	
Surr: 4-Bromofluorobenzene	*216.9*	0	0	*200*	0	*108*	*80-110*	205.4	*5.45*	*30*	
Surr: Dibromofluoromethane	*214*	0	0	*200*	0	*107*	*85-115*	218.6	*2.13*	*30*	
Surr: Toluene-d8	*196.2*	0	0	*200*	0	*98.1*	*85-110*	191.2	*2.58*	*30*	

The following samples were analyzed in this batch:

1805785-01A	1805785-02A	1805785-03A
1805785-04A	1805785-06A	1805785-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180516-R236015A** Units: **µg/L** Analysis Date: **05/16/18 03:33 PM**
Client ID: Run ID: **VMS10_180516A** SeqNo: **5038202** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015A**	Instrument ID **VMS10**			Method: **SW8260C**				
Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*20.46*	0	0	*20*	0	*102*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.43*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.46*	0	0	*20*	0	*97.3*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180516-R236015A** Units: **µg/L** Analysis Date: **05/16/18 03:01 PM**
Client ID: Run ID: **VMS10_180516A** SeqNo: **5039144** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.26	0.33	1.0	20	0	101	75-130	0			
1,1,2,2-Tetrachloroethane	22.81	0.17	1.0	20	0	114	75-130	0			
1,1,2-Trichloroethane	20.54	0.22	1.0	20	0	103	75-125	0			
1,1-Dichloroethane	21.35	0.48	1.0	20	0	107	68-142	0			
1,1-Dichloroethene	21.95	0.36	1.0	20	0	110	70-145	0			
1,2,3-Trichlorobenzene	19.23	0.29	1.0	20	0	96.2	70-140	0			
1,2,4-Trichlorobenzene	19.22	0.25	1.0	20	0	96.1	70-135	0			
1,2-Dibromo-3-chloropropane	19.92	0.43	1.0	20	0	99.6	60-130	0			
1,2-Dibromoethane	24.02	0.17	1.0	20	0	120	67-155	0			
1,2-Dichlorobenzene	19.55	0.12	1.0	20	0	97.8	70-130	0			
1,2-Dichloroethane	19.95	0.11	1.0	20	0	99.8	78-125	0			
1,2-Dichloropropane	20.45	0.34	1.0	20	0	102	75-125	0			
1,3-Dichlorobenzene	19.65	0.13	1.0	20	0	98.2	75-130	0			
1,4-Dichlorobenzene	20.14	0.13	1.0	20	0	101	75-130	0			
2-Butanone	21.63	0.47	5.0	20	0	108	55-150	0			
2-Hexanone	22.68	0.5	5.0	20	0	113	60-135	0			
4-Methyl-2-pentanone	33.27	0.52	1.0	20	0	166	77-178	0			
Acetone	17.4	0.47	10	20	0	87	60-160	0			
Benzene	20.15	0.42	1.0	20	0	101	85-125	0			
Bromochloromethane	21.36	0.15	1.0	20	0	107	72-141	0			
Bromodichloromethane	20.12	0.22	1.0	20	0	101	75-125	0			
Bromoform	19.45	0.56	1.0	20	0	97.2	60-125	0			
Bromomethane	14.13	0.29	1.0	20	0	70.6	30-185	0			
Carbon disulfide	17.16	0.39	1.0	20	0	85.8	60-165	0			
Carbon tetrachloride	19.92	0.32	1.0	20	0	99.6	65-140	0			
Chlorobenzene	19.44	0.21	1.0	20	0	97.2	80-120	0			
Chloroethane	19.81	0.68	1.0	20	0	99	50-140	0			
Chloroform	20.62	0.46	1.0	20	0	103	80-130	0			
Chloromethane	19.92	0.68	1.0	20	0	99.6	46-148	0			
cis-1,2-Dichloroethene	22.35	0.38	1.0	20	0	112	75-134	0			
cis-1,3-Dichloropropene	21.39	0.13	1.0	20	0	107	70-130	0			
Dibromochloromethane	19.46	0.2	1.0	20	0	97.3	60-115	0			
Dichlorodifluoromethane	14.67	0.3	1.0	20	0	73.4	20-120	0			
Ethylbenzene	19.69	0.29	1.0	20	0	98.4	76-123	0			
Isopropylbenzene	20.07	0.17	1.0	20	0	100	80-127	0			
m,p-Xylene	39.55	0.53	2.0	40	0	98.9	75-130	0			
Methyl tert-butyl ether	24.08	0.21	1.0	20	0	120	68-129	0			
Methylene chloride	20.21	0.16	5.0	20	0	101	75-140	0			
o-Xylene	20.03	0.19	1.0	20	0	100	76-127	0			
Styrene	20.83	0.19	1.0	20	0	104	83-137	0			
Tetrachloroethene	19.8	0.28	1.0	20	0	99	68-166	0			
Toluene	19.12	0.32	1.0	20	0	95.6	76-125	0			
trans-1,2-Dichloroethene	22.36	0.48	1.0	20	0	112	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,3-Dichloropropene	20.71	0.15	1.0	20	0	104	56-132	0
Trichloroethene	19.23	0.33	1.0	20	0	96.2	84-130	0
Trichlorofluoromethane	19.99	0.24	1.0	20	0	100	60-140	0
Vinyl chloride	19.3	0.53	1.0	20	0	96.5	50-136	0
Surr: 1,2-Dichloroethane-d4	*20.17*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.43*	0	0	*20*	0	*102*	*80-110*	0
Surr: Dibromofluoromethane	*20.76*	0	0	*20*	0	*104*	*85-115*	0
Surr: Toluene-d8	*19.49*	0	0	*20*	0	*97.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/16/18 10:15 PM**
Client ID: **TW-1** Run ID: **VMS10_180516A** SeqNo: **5038218** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	264.4	3.3	10	200	32.5	116	75-130	0			
1,1,2,2-Tetrachloroethane	236.4	1.7	10	200	0	118	75-130	0			
1,1,2-Trichloroethane	219.5	2.2	10	200	0	110	75-125	0			
1,1-Dichloroethane	383.8	4.8	10	200	155.7	114	68-142	0			
1,1-Dichloroethene	224.1	3.6	10	200	0	112	70-145	0			
1,2,3-Trichlorobenzene	204.7	2.9	10	200	0	102	70-140	0			
1,2,4-Trichlorobenzene	197.9	2.5	10	200	0	99	70-135	0			
1,2-Dibromo-3-chloropropane	211.8	4.3	10	200	0	106	60-130	0			
1,2-Dibromoethane	250.7	1.7	10	200	0	125	67-155	0			
1,2-Dichlorobenzene	248.3	1.2	10	200	42.3	103	70-130	0			
1,2-Dichloroethane	222.1	1.1	10	200	0	111	78-125	0			
1,2-Dichloropropane	231.2	3.4	10	200	0	116	75-125	0			
1,3-Dichlorobenzene	212.6	1.3	10	200	0	106	75-130	0			
1,4-Dichlorobenzene	214.6	1.3	10	200	0	107	75-130	0			
2-Butanone	342.3	4.7	50	200	116.3	113	55-150	0			
2-Hexanone	242.3	5	50	200	0	121	60-135	0			
4-Methyl-2-pentanone	334.5	5.2	10	200	0	167	77-178	0			
Acetone	327.6	4.7	100	200	133.8	96.9	60-160	0			
Benzene	235	4.2	10	200	0	118	85-125	0			
Bromochloromethane	246.6	1.5	10	200	0	123	72-141	0			
Bromodichloromethane	210.6	2.2	10	200	0	105	75-125	0			
Bromoform	185.2	5.6	10	200	0	92.6	60-125	0			
Bromomethane	159.3	2.9	10	200	0	79.6	30-185	0			
Carbon disulfide	186.3	3.9	10	200	0	93.2	60-165	0			
Carbon tetrachloride	232.5	3.2	10	200	0	116	65-140	0			
Chlorobenzene	210.4	2.1	10	200	0	105	80-120	0			
Chloroethane	250.7	6.8	10	200	11.8	119	50-140	0			
Chloroform	228	4.6	10	200	0	114	80-130	0			
Chloromethane	267.3	6.8	10	200	0	134	46-148	0			
cis-1,2-Dichloroethene	339.3	3.8	10	200	188.5	75.4	75-134	0			
cis-1,3-Dichloropropene	222.9	1.3	10	200	0	111	70-130	0			
Dibromochloromethane	190	2	10	200	0	95	60-115	0			
Dichlorodifluoromethane	232.7	3	10	200	82.4	75.2	20-120	0			
Ethylbenzene	2263	2.9	10	200	2179	42.1	76-123	0			SEO
Isopropylbenzene	377.7	1.7	10	200	149.9	114	80-127	0			
m,p-Xylene	7989	5.3	20	400	8149	-40	75-130	0			SEO
Methyl tert-butyl ether	257.6	2.1	10	200	0	129	68-129	0			
Methylene chloride	219.5	1.6	50	200	0	110	75-140	0			
o-Xylene	2392	1.9	10	200	2288	52	76-127	0			SEO
Styrene	299	1.9	10	200	0	150	83-137	0			S
Tetrachloroethene	231.2	2.8	10	200	15.7	108	68-166	0			
Toluene	852	3.2	10	200	700	76	76-125	0			
trans-1,2-Dichloroethene	258.4	4.8	10	200	0	129	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,3-Dichloropropene	202.7	1.5	10	200	0	101	56-132	0
Trichloroethene	233.4	3.3	10	200	0	117	84-130	0
Trichlorofluoromethane	257.5	2.4	10	200	0	129	60-140	0
Vinyl chloride	322	5.3	10	200	83.9	119	50-136	0
Surr: 1,2-Dichloroethane-d4	*208*	0	0	*200*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*205.4*	0	0	*200*	0	*103*	*80-110*	0
Surr: Dibromofluoromethane	*218.6*	0	0	*200*	0	*109*	*85-115*	0
Surr: Toluene-d8	*191.2*	0	0	*200*	0	*95.6*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/16/18 10:31 PM**
Client ID: **TW-1** Run ID: **VMS10_180516A** SeqNo: **5038219** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	268.5	3.3	10	200	32.5	118	75-130	264.4	1.54	30	
1,1,2,2-Tetrachloroethane	245.3	1.7	10	200	0	123	75-130	236.4	3.7	30	
1,1,2-Trichloroethane	228.5	2.2	10	200	0	114	75-125	219.5	4.02	30	
1,1-Dichloroethane	405	4.8	10	200	155.7	125	68-142	383.8	5.38	30	
1,1-Dichloroethene	238.2	3.6	10	200	0	119	70-145	224.1	6.1	30	
1,2,3-Trichlorobenzene	213.3	2.9	10	200	0	107	70-140	204.7	4.11	30	
1,2,4-Trichlorobenzene	207.2	2.5	10	200	0	104	70-135	197.9	4.59	30	
1,2-Dibromo-3-chloropropane	214.7	4.3	10	200	0	107	60-130	211.8	1.36	30	
1,2-Dibromoethane	265.9	1.7	10	200	0	133	67-155	250.7	5.88	30	
1,2-Dichlorobenzene	256.2	1.2	10	200	42.3	107	70-130	248.3	3.13	30	
1,2-Dichloroethane	229.4	1.1	10	200	0	115	78-125	222.1	3.23	30	
1,2-Dichloropropane	241.2	3.4	10	200	0	121	75-125	231.2	4.23	30	
1,3-Dichlorobenzene	219.4	1.3	10	200	0	110	75-130	212.6	3.15	30	
1,4-Dichlorobenzene	223.7	1.3	10	200	0	112	75-130	214.6	4.15	30	
2-Butanone	370.3	4.7	50	200	116.3	127	55-150	342.3	7.86	30	
2-Hexanone	256.7	5	50	200	0	128	60-135	242.3	5.77	30	
4-Methyl-2-pentanone	357.3	5.2	10	200	0	179	77-178	334.5	6.59	30	S
Acetone	356.6	4.7	100	200	133.8	111	60-160	327.6	8.48	30	
Benzene	245	4.2	10	200	0	122	85-125	235	4.17	30	
Bromochloromethane	264.6	1.5	10	200	0	132	72-141	246.6	7.04	30	
Bromodichloromethane	223.6	2.2	10	200	0	112	75-125	210.6	5.99	30	
Bromoform	198.1	5.6	10	200	0	99	60-125	185.2	6.73	30	
Bromomethane	164.3	2.9	10	200	0	82.2	30-185	159.3	3.09	30	
Carbon disulfide	207.6	3.9	10	200	0	104	60-165	186.3	10.8	30	
Carbon tetrachloride	236.5	3.2	10	200	0	118	65-140	232.5	1.71	30	
Chlorobenzene	223.8	2.1	10	200	0	112	80-120	210.4	6.17	30	
Chloroethane	268.5	6.8	10	200	11.8	128	50-140	250.7	6.86	30	
Chloroform	245.1	4.6	10	200	0	123	80-130	228	7.23	30	
Chloromethane	294.3	6.8	10	200	0	147	46-148	267.3	9.62	30	
cis-1,2-Dichloroethene	344.8	3.8	10	200	188.5	78.2	75-134	339.3	1.61	30	
cis-1,3-Dichloropropene	232.2	1.3	10	200	0	116	70-130	222.9	4.09	30	
Dibromochloromethane	204.8	2	10	200	0	102	60-115	190	7.5	30	
Dichlorodifluoromethane	246.9	3	10	200	82.4	82.2	20-120	232.7	5.92	30	
Ethylbenzene	2383	2.9	10	200	2179	102	76-123	2263	5.18	30	EO
Isopropylbenzene	396.2	1.7	10	200	149.9	123	80-127	377.7	4.78	30	
m,p-Xylene	8298	5.3	20	400	8149	37.4	75-130	7989	3.8	30	SEO
Methyl tert-butyl ether	280.7	2.1	10	200	0	140	68-129	257.6	8.58	30	S
Methylene chloride	239.1	1.6	50	200	0	120	75-140	219.5	8.55	30	
o-Xylene	2516	1.9	10	200	2288	114	76-127	2392	5.03	30	EO
Styrene	312.9	1.9	10	200	0	156	83-137	299	4.54	30	S
Tetrachloroethene	241.4	2.8	10	200	15.7	113	68-166	231.2	4.32	30	
Toluene	892.2	3.2	10	200	700	96.1	76-125	852	4.61	30	
trans-1,2-Dichloroethene	277	4.8	10	200	0	138	80-140	258.4	6.95	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236015A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,3-Dichloropropene	219	1.5	10	200	0	110	56-132	202.7	7.73	30
Trichloroethene	236.4	3.3	10	200	0	118	84-130	233.4	1.28	30
Trichlorofluoromethane	277.2	2.4	10	200	0	139	60-140	257.5	7.37	30
Vinyl chloride	340.7	5.3	10	200	83.9	128	50-136	322	5.64	30
Surr: 1,2-Dichloroethane-d4	*210.6*	0	0	*200*	0	*105*	*75-120*	208	*1.24*	*30*
Surr: 4-Bromofluorobenzene	*216.9*	0	0	*200*	0	*108*	*80-110*	205.4	*5.45*	*30*
Surr: Dibromofluoromethane	*214*	0	0	*200*	0	*107*	*85-115*	218.6	*2.13*	*30*
Surr: Toluene-d8	*196.2*	0	0	*200*	0	*98.1*	*85-110*	191.2	*2.58*	*30*

The following samples were analyzed in this batch:

1805785-01A	1805785-02A	1805785-03A
1805785-04A	1805785-05A	1805785-06A
1805785-07A		

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236039** Units: **µg/L** Analysis Date: **05/16/18 11:26 PM**

Client ID: Run ID: **VMS9_180516B** SeqNo: **5094529** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.54*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.15*	0	0	*20*	0	*90.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.97*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*20.12*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCS1-180615-R236039** Units: **µg/L** Analysis Date: **06/15/18 04:03 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094527** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.64	0.22	0.74	20	0	103	73-114	0			
1,1,1-Trichloroethane	19.97	0.36	1.2	20	0	99.8	75-130	0			
1,1,2,2-Tetrachloroethane	16.7	0.19	0.62	20	0	83.5	75-130	0			
1,1,2-Trichloroethane	19.22	0.4	1.3	20	0	96.1	75-125	0			
1,1-Dichloroethane	14.95	0.31	1.0	20	0	74.8	75-133	0			S
1,1-Dichloroethene	20.52	0.28	0.92	20	0	103	70-145	0			
1,1-Dichloropropene	18.93	0.35	1.2	20	0	94.6	75-135	0			
1,2,3-Trichlorobenzene	20.73	0.17	0.55	20	0	104	70-140	0			
1,2,3-Trichloropropane	16.04	0.11	0.40	20	0	80.2	75-125	0			
1,2,4-Trichlorobenzene	20.42	0.21	0.71	20	0	102	70-135	0			
1,2,4-Trimethylbenzene	16.98	0.37	1.2	20	0	84.9	75-130	0			
1,2-Dibromo-3-chloropropane	19.37	0.97	3.2	20	0	96.8	60-130	0			
1,2-Dibromoethane	20.77	0.98	3.3	20	0	104	90-195	0			
1,2-Dichlorobenzene	18.94	0.22	0.73	20	0	94.7	70-130	0			
1,2-Dichloroethane	17.64	0.17	0.55	20	0	88.2	78-125	0			
1,2-Dichloropropane	18.38	0.25	0.83	20	0	91.9	75-125	0			
1,3,5-Trimethylbenzene	16.98	0.29	0.95	20	0	84.9	75-130	0			
1,3-Dichlorobenzene	19.25	0.29	0.96	20	0	96.2	75-130	0			
1,3-Dichloropropane	19.94	0.18	0.61	20	0	99.7	75-125	0			
1,4-Dichlorobenzene	19.91	0.21	0.71	20	0	99.6	75-130	0			
2,2-Dichloropropane	18.39	0.44	1.5	20	0	92	43-150	0			
2-Butanone	20.87	0.58	2.0	20	0	104	55-150	0			
2-Chlorotoluene	15.3	0.32	1.1	20	0	76.5	84-133	0			S
4-Chlorotoluene	15.76	0.28	0.95	20	0	78.8	80-125	0			S
4-Methyl-2-pentanone	28.45	0.11	0.40	20	0	142	77-178	0			
Acetone	19.17	0.92	3.1	20	0	95.8	60-160	0			
Benzene	18.21	0.3	1.0	20	0	91	85-125	0			
Bromobenzene	16.22	0.24	0.80	20	0	81.1	80-125	0			
Bromochloromethane	19.42	0.2	0.66	20	0	97.1	72-141	0			
Bromodichloromethane	19.83	0.23	0.78	20	0	99.2	75-125	0			
Bromoform	20.36	0.77	2.6	20	0	102	60-125	0			
Bromomethane	17.25	0.38	1.3	20	0	86.2	30-185	0			
Carbon tetrachloride	18.42	0.31	1.0	20	0	92.1	65-140	0			
Chlorobenzene	19.67	0.27	0.90	20	0	98.4	80-120	0			
Chloroethane	16.85	0.29	0.97	20	0	84.2	50-140	0			
Chloroform	19.03	0.26	0.86	20	0	95.2	80-130	0			
Chloromethane	13.93	0.17	0.57	20	0	69.6	46-148	0			
cis-1,2-Dichloroethene	19.2	0.25	0.85	20	0	96	75-134	0			
cis-1,3-Dichloropropene	19.17	0.39	1.3	20	0	95.8	70-130	0			
Dibromochloromethane	19.75	0.38	1.2	20	0	98.8	60-115	0			
Dibromomethane	20.07	0.25	0.83	20	0	100	85-125	0			
Dichlorodifluoromethane	14.64	0.13	0.44	20	0	73.2	20-120	0			
Ethylbenzene	19.61	0.4	1.3	20	0	98	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	20.48	0.24	0.80	20	0	102	70-155	0	
Isopropylbenzene	18.31	0.31	1.0	20	0	91.6	80-127	0	
m,p-Xylene	39.47	0.98	3.3	40	0	98.7	75-130	0	
Methyl tert-butyl ether	22.96	0.12	0.40	20	0	115	80-130	0	
Methylene chloride	18.9	0.56	1.8	20	0	94.5	75-140	0	
Naphthalene	20.71	0.18	0.59	20	0	104	55-160	0	
n-Butylbenzene	17.76	0.22	0.73	20	0	88.8	75-145	0	
n-Propylbenzene	15.62	0.24	0.81	20	0	78.1	83-135	0	S
o-Xylene	19.11	0.35	1.2	20	0	95.6	80-125	0	
p-Isopropyltoluene	17.73	0.14	0.48	20	0	88.6	61-164	0	
sec-Butylbenzene	16.13	0.29	0.98	20	0	80.6	80-134	0	
Styrene	19.31	0.24	0.79	20	0	96.6	83-137	0	
tert-Butylbenzene	16.78	0.34	1.2	20	0	83.9	70-130	0	
Tetrachloroethene	18.92	0.27	0.91	20	0	94.6	68-166	0	
Toluene	11.84	0.37	1.2	20	0	59.2	76-125	0	S
trans-1,2-Dichloroethene	19.74	0.28	0.93	20	0	98.7	80-140	0	
trans-1,3-Dichloropropene	19.1	0.82	2.7	20	0	95.5	56-132	0	
Trichloroethene	19.03	0.3	0.99	20	0	95.2	84-130	0	
Trichlorofluoromethane	15.84	0.2	0.66	20	0	79.2	60-140	0	
Vinyl chloride	18.09	0.2	0.68	20	0	90.4	50-136	0	
Xylenes, Total	58.58	1.3	4.4	60	0	97.6	80-126	0	
Surr: 1,2-Dichloroethane-d4	*18.8*	0	0	*20*	0	*94*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*16.14*	0	0	*20*	0	*80.7*	*80-110*	0	
Surr: Dibromofluoromethane	*20.25*	0	0	*20*	0	*101*	*85-115*	0	
Surr: Toluene-d8	*19.49*	0	0	*20*	0	*97.4*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236039** Units: **µg/L** Analysis Date: **05/16/18 10:13 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094528** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.76	0.22	0.74	20	0	104	73-114	0			
1,1,1-Trichloroethane	23.07	0.36	1.2	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	21.2	0.19	0.62	20	0	106	75-130	0			
1,1,2-Trichloroethane	20.92	0.4	1.3	20	0	105	75-125	0			
1,1-Dichloroethane	23.2	0.31	1.0	20	0	116	75-133	0			
1,1-Dichloroethene	22.76	0.28	0.92	20	0	114	70-145	0			
1,1-Dichloropropene	21.06	0.35	1.2	20	0	105	75-135	0			
1,2,3-Trichlorobenzene	19.96	0.17	0.55	20	0	99.8	70-140	0			
1,2,3-Trichloropropane	19.98	0.11	0.40	20	0	99.9	75-125	0			
1,2,4-Trichlorobenzene	19.56	0.21	0.71	20	0	97.8	70-135	0			
1,2,4-Trimethylbenzene	23.31	0.37	1.2	20	0	117	75-130	0			
1,2-Dibromo-3-chloropropane	18.88	0.97	3.2	20	0	94.4	60-130	0			
1,2-Dibromoethane	25.28	0.98	3.3	20	0	126	90-195	0			
1,2-Dichlorobenzene	20.04	0.22	0.73	20	0	100	70-130	0			
1,2-Dichloroethane	22.93	0.17	0.55	20	0	115	78-125	0			
1,2-Dichloropropane	23.44	0.25	0.83	20	0	117	75-125	0			
1,3,5-Trimethylbenzene	23.97	0.29	0.95	20	0	120	75-130	0			
1,3-Dichlorobenzene	20.49	0.29	0.96	20	0	102	75-130	0			
1,3-Dichloropropane	21.59	0.18	0.61	20	0	108	75-125	0			
1,4-Dichlorobenzene	20.32	0.21	0.71	20	0	102	75-130	0			
2,2-Dichloropropane	21.31	0.44	1.5	20	0	107	43-150	0			
2-Butanone	21.99	0.58	2.0	20	0	110	55-150	0			
2-Chlorotoluene	23.25	0.32	1.1	20	0	116	84-133	0			
4-Chlorotoluene	23.15	0.28	0.95	20	0	116	80-125	0			
4-Methyl-2-pentanone	28.23	0.11	0.40	20	0	141	77-178	0			
Acetone	22.27	0.92	3.1	20	0	111	60-160	0			
Benzene	21.83	0.3	1.0	20	0	109	85-125	0			
Bromobenzene	21.38	0.24	0.80	20	0	107	80-125	0			
Bromochloromethane	22.08	0.2	0.66	20	0	110	72-141	0			
Bromodichloromethane	20.8	0.23	0.78	20	0	104	75-125	0			
Bromoform	18.39	0.77	2.6	20	0	92	60-125	0			
Bromomethane	19.64	0.38	1.3	20	0	98.2	30-185	0			
Carbon tetrachloride	21.62	0.31	1.0	20	0	108	65-140	0			
Chlorobenzene	20.71	0.27	0.90	20	0	104	80-120	0			
Chloroethane	20.93	0.29	0.97	20	0	105	50-140	0			
Chloroform	21.8	0.26	0.86	20	0	109	80-130	0			
Chloromethane	17.82	0.17	0.57	20	0	89.1	46-148	0			
cis-1,2-Dichloroethene	23.81	0.25	0.85	20	0	119	75-134	0			
cis-1,3-Dichloropropene	22.76	0.39	1.3	20	0	114	70-130	0			
Dibromochloromethane	17.97	0.38	1.2	20	0	89.8	60-115	0			
Dibromomethane	21.56	0.25	0.83	20	0	108	85-125	0			
Dichlorodifluoromethane	11.6	0.13	0.44	20	0	58	20-120	0			
Ethylbenzene	22.32	0.4	1.3	20	0	112	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	20.37	0.24	0.80	20	0	102	70-155	0
Isopropylbenzene	23.85	0.31	1.0	20	0	119	80-127	0
m,p-Xylene	47.6	0.98	3.3	40	0	119	75-130	0
Methyl tert-butyl ether	25.18	0.12	0.40	20	0	126	80-130	0
Methylene chloride	21.4	0.56	1.8	20	0	107	75-140	0
Naphthalene	19.96	0.18	0.59	20	0	99.8	55-160	0
n-Butylbenzene	21.57	0.22	0.73	20	0	108	75-145	0
n-Propylbenzene	22.94	0.24	0.81	20	0	115	83-135	0
o-Xylene	23.7	0.35	1.2	20	0	118	80-125	0
p-Isopropyltoluene	22.61	0.14	0.48	20	0	113	61-164	0
sec-Butylbenzene	23.76	0.29	0.98	20	0	119	80-134	0
Styrene	25.07	0.24	0.79	20	0	125	83-137	0
tert-Butylbenzene	23.15	0.34	1.2	20	0	116	70-130	0
Tetrachloroethene	20.33	0.27	0.91	20	0	102	68-166	0
Toluene	21	0.37	1.2	20	0	105	76-125	0
trans-1,2-Dichloroethene	22.52	0.28	0.93	20	0	113	80-140	0
trans-1,3-Dichloropropene	21.61	0.82	2.7	20	0	108	56-132	0
Trichloroethene	22.64	0.3	0.99	20	0	113	84-130	0
Trichlorofluoromethane	18.86	0.2	0.66	20	0	94.3	60-140	0
Vinyl chloride	17.22	0.2	0.68	20	0	86.1	50-136	0
Xylenes, Total	71.3	1.3	4.4	60	0	119	80-126	0
Surr: 1,2-Dichloroethane-d4	*20.88*	0	0	*20*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*21.67*	0	0	*20*	0	*108*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.82*	0	0	*20*	0	*99.1*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/17/18 08:22 AM**
Client ID: **RW-12** Run ID: **VMS9_180516B** SeqNo: **5094548** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	209.5	2.2	7.4	200	0	105	73-114	0			
1,1,1-Trichloroethane	2906	3.6	12	200	2807	49.6	75-130	0			SEO
1,1,2,2-Tetrachloroethane	193.9	1.9	6.2	200	0	97	75-130	0			
1,1,2-Trichloroethane	403.4	4	13	200	184.9	109	75-125	0			
1,1-Dichloroethane	1965	3.1	10	200	1374	296	75-133	0			SEO
1,1-Dichloroethene	604.7	2.8	9.2	200	245.1	180	70-145	0			S
1,1-Dichloropropene	257.1	3.5	12	200	0	129	75-135	0			
1,2,3-Trichlorobenzene	183.3	1.7	5.5	200	0	91.6	70-140	0			
1,2,3-Trichloropropane	175.3	1.1	4.0	200	0	87.6	75-125	0			
1,2,4-Trichlorobenzene	181.1	2.1	7.1	200	0	90.6	70-135	0			
1,2,4-Trimethylbenzene	552.5	3.7	12	200	275.6	138	75-130	0			S
1,2-Dibromo-3-chloropropane	182.5	9.7	32	200	0	91.2	60-130	0			
1,2-Dibromoethane	259	9.8	33	200	0	130	90-195	0			
1,2-Dichlorobenzene	196.2	2.2	7.3	200	7.4	94.4	70-130	0			
1,2-Dichloroethane	477.1	1.7	5.5	200	208.9	134	78-125	0			S
1,2-Dichloropropane	350.3	2.5	8.3	200	92.4	129	75-125	0			S
1,3,5-Trimethylbenzene	342	2.9	9.5	200	81.9	130	75-130	0			S
1,3-Dichlorobenzene	195.6	2.9	9.6	200	0	97.8	75-130	0			
1,3-Dichloropropane	219.1	1.8	6.1	200	0	110	75-125	0			
1,4-Dichlorobenzene	194.9	2.1	7.1	200	0	97.4	75-130	0			
2,2-Dichloropropane	217.3	4.4	15	200	0	109	43-150	0			
2-Butanone	18500	5.8	20	200	14520	1990	55-150	0			SEO
2-Chlorotoluene	232.9	3.2	11	200	0	116	84-133	0			
4-Chlorotoluene	238	2.8	9.5	200	0	119	80-125	0			
4-Methyl-2-pentanone	8582	1.1	4.0	200	7826	378	77-178	0			SEO
Acetone	80990	9.2	31	200	61690	9650	60-160	0			SEO
Benzene	355.7	3	10	200	96.6	130	85-125	0			S
Bromobenzene	204	2.4	8.0	200	0	102	80-125	0			
Bromochloromethane	246.9	2	6.6	200	0	123	72-141	0			
Bromodichloromethane	231.2	2.3	7.8	200	0	116	75-125	0			
Bromoform	188.1	7.7	26	200	0	94	60-125	0			
Bromomethane	705.4	3.8	13	200	0	353	30-185	0			S
Carbon tetrachloride	244.1	3.1	10	200	0	122	65-140	0			
Chlorobenzene	210.6	2.7	9.0	200	0	105	80-120	0			
Chloroethane	512.3	2.9	9.7	200	262.1	125	50-140	0			
Chloroform	312.8	2.6	8.6	200	55.9	128	80-130	0			
Chloromethane	207.4	1.7	5.7	200	0	104	46-148	0			
cis-1,2-Dichloroethene	10960	2.5	8.5	200	8487	1230	75-134	0			SEO
cis-1,3-Dichloropropene	237.9	3.9	13	200	0	119	70-130	0			
Dibromochloromethane	195.8	3.8	12	200	0	97.9	60-115	0			
Dibromomethane	239.8	2.5	8.3	200	0	120	85-125	0			
Dichlorodifluoromethane	181	1.3	4.4	200	0	90.5	20-120	0			
Ethylbenzene	4712	4	13	200	4225	244	76-123	0			SEO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	186.9	2.4	8.0	200	0	93.4	70-155	0	
Isopropylbenzene	284.2	3.1	10	200	37	124	80-127	0	
m,p-Xylene	13400	9.8	33	400	12270	283	75-130	0	SEO
Methyl tert-butyl ether	265.9	1.2	4.0	200	6.1	130	80-130	0	
Methylene chloride	2487	5.6	18	200	1778	354	75-140	0	SEO
Naphthalene	211.9	1.8	5.9	200	26.5	92.7	55-160	0	
n-Butylbenzene	217.1	2.2	7.3	200	5.3	106	75-145	0	
n-Propylbenzene	276.9	2.4	8.1	200	41.3	118	83-135	0	
o-Xylene	4462	3.5	12	200	3986	238	80-125	0	SEO
p-Isopropyltoluene	221.5	1.4	4.8	200	2.2	110	61-164	0	
sec-Butylbenzene	246.2	2.9	9.8	200	0	123	80-134	0	
Styrene	292.3	2.4	7.9	200	33.5	129	83-137	0	
tert-Butylbenzene	237.7	3.4	12	200	0	119	70-130	0	
Tetrachloroethene	360.6	2.7	9.1	200	189.2	85.7	68-166	0	
Toluene	U	3.7	12	200	22440	-1E+04	76-125	0	SO
trans-1,2-Dichloroethene	286	2.8	9.3	200	16	135	80-140	0	
trans-1,3-Dichloropropene	222.9	8.2	27	200	0	111	56-132	0	
Trichloroethene	633.9	3	9.9	200	487.9	73	84-130	0	S
Trichlorofluoromethane	255.3	2	6.6	200	0	128	60-140	0	
Vinyl chloride	941.2	2	6.8	200	541.1	200	50-136	0	S
Xylenes, Total	17860	13	44	600	16260	268	80-126	0	SEO
Surr: 1,2-Dichloroethane-d4	*230.6*	0	0	*200*	0	*115*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*208.7*	0	0	*200*	0	*104*	*80-110*	0	
Surr: Dibromofluoromethane	*206.5*	0	0	*200*	0	*103*	*85-115*	0	
Surr: Toluene-d8	*230.6*	0	0	*200*	0	*115*	*85-110*	0	*S*

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/17/18 08:47 AM**
Client ID: **RW-12** Run ID: **VMS9_180516B** SeqNo: **5094549** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	197.3	2.2	7.4	200	0	98.6	73-114	209.5	6	30	
1,1,1-Trichloroethane	3337	3.6	12	200	2807	265	75-130	2906	13.8	30	SEO
1,1,2,2-Tetrachloroethane	191.3	1.9	6.2	200	0	95.6	75-130	193.9	1.35	30	
1,1,2-Trichloroethane	383.4	4	13	200	184.9	99.2	75-125	403.4	5.08	30	
1,1-Dichloroethane	1758	3.1	10	200	1374	192	75-133	1965	11.1	30	SEO
1,1-Dichloroethene	538.1	2.8	9.2	200	245.1	146	70-145	604.7	11.7	30	S
1,1-Dichloropropene	258.7	3.5	12	200	0	129	75-135	257.1	0.62	30	
1,2,3-Trichlorobenzene	183.1	1.7	5.5	200	0	91.6	70-140	183.3	0.109	30	
1,2,3-Trichloropropane	177	1.1	4.0	200	0	88.5	75-125	175.3	0.965	30	
1,2,4-Trichlorobenzene	183.6	2.1	7.1	200	0	91.8	70-135	181.1	1.37	30	
1,2,4-Trimethylbenzene	557.1	3.7	12	200	275.6	141	75-130	552.5	0.829	30	S
1,2-Dibromo-3-chloropropane	176.8	9.7	32	200	0	88.4	60-130	182.5	3.17	30	
1,2-Dibromoethane	244.4	9.8	33	200	0	122	90-195	259	5.8	30	
1,2-Dichlorobenzene	199.6	2.2	7.3	200	7.4	96.1	70-130	196.2	1.72	30	
1,2-Dichloroethane	503.5	1.7	5.5	200	208.9	147	78-125	477.1	5.38	30	S
1,2-Dichloropropane	366.5	2.5	8.3	200	92.4	137	75-125	350.3	4.52	30	S
1,3,5-Trimethylbenzene	345	2.9	9.5	200	81.9	132	75-130	342	0.873	30	S
1,3-Dichlorobenzene	196.6	2.9	9.6	200	0	98.3	75-130	195.6	0.51	30	
1,3-Dichloropropane	212.3	1.8	6.1	200	0	106	75-125	219.1	3.15	30	
1,4-Dichlorobenzene	196.6	2.1	7.1	200	0	98.3	75-130	194.9	0.868	30	
2,2-Dichloropropane	199.2	4.4	15	200	0	99.6	43-150	217.3	8.69	30	
2-Butanone	17160	5.8	20	200	14520	1320	55-150	18500	7.5	30	SEO
2-Chlorotoluene	235.6	3.2	11	200	0	118	84-133	232.9	1.15	30	
4-Chlorotoluene	241.1	2.8	9.5	200	0	121	80-125	238	1.29	30	
4-Methyl-2-pentanone	8763	1.1	4.0	200	7826	468	77-178	8582	2.08	30	SEO
Acetone	67730	9.2	31	200	61690	3020	60-160	80990	17.8	30	SEO
Benzene	346.4	3	10	200	96.6	125	85-125	355.7	2.65	30	
Bromobenzene	204.9	2.4	8.0	200	0	102	80-125	204	0.44	30	
Bromochloromethane	224.2	2	6.6	200	0	112	72-141	246.9	9.64	30	
Bromodichloromethane	249	2.3	7.8	200	0	124	75-125	231.2	7.41	30	
Bromoform	174	7.7	26	200	0	87	60-125	188.1	7.79	30	
Bromomethane	814.8	3.8	13	200	0	407	30-185	705.4	14.4	30	S
Carbon tetrachloride	288.5	3.1	10	200	0	144	65-140	244.1	16.7	30	S
Chlorobenzene	215.7	2.7	9.0	200	0	108	80-120	210.6	2.39	30	
Chloroethane	452.4	2.9	9.7	200	262.1	95.2	50-140	512.3	12.4	30	
Chloroform	302.6	2.6	8.6	200	55.9	123	80-130	312.8	3.31	30	
Chloromethane	183.8	1.7	5.7	200	0	91.9	46-148	207.4	12.1	30	
cis-1,2-Dichloroethene	9820	2.5	8.5	200	8487	667	75-134	10960	10.9	30	SEO
cis-1,3-Dichloropropene	248.6	3.9	13	200	0	124	70-130	237.9	4.4	30	
Dibromochloromethane	183.5	3.8	12	200	0	91.8	60-115	195.8	6.49	30	
Dibromomethane	253.7	2.5	8.3	200	0	127	85-125	239.8	5.63	30	S
Dichlorodifluoromethane	153.5	1.3	4.4	200	0	76.8	20-120	181	16.4	30	
Ethylbenzene	4797	4	13	200	4225	286	76-123	4712	1.78	30	SEO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	190.2	2.4	8.0	200	0	95.1	70-155	186.9	1.75	30	
Isopropylbenzene	288.1	3.1	10	200	37	126	80-127	284.2	1.36	30	
m,p-Xylene	13590	9.8	33	400	12270	330	75-130	13400	1.41	30	SEO
Methyl tert-butyl ether	241.9	1.2	4.0	200	6.1	118	80-130	265.9	9.45	30	
Methylene chloride	2226	5.6	18	200	1778	224	75-140	2487	11.1	30	SEO
Naphthalene	214.6	1.8	5.9	200	26.5	94	55-160	211.9	1.27	30	
n-Butylbenzene	227.1	2.2	7.3	200	5.3	111	75-145	217.1	4.5	30	
n-Propylbenzene	283	2.4	8.1	200	41.3	121	83-135	276.9	2.18	30	
o-Xylene	4519	3.5	12	200	3986	267	80-125	4462	1.28	30	SEO
p-Isopropyltoluene	229.9	1.4	4.8	200	2.2	114	61-164	221.5	3.72	30	
sec-Butylbenzene	257.7	2.9	9.8	200	0	129	80-134	246.2	4.56	30	
Styrene	301.8	2.4	7.9	200	33.5	134	83-137	292.3	3.2	30	
tert-Butylbenzene	246.5	3.4	12	200	0	123	70-130	237.7	3.63	30	
Tetrachloroethene	354.7	2.7	9.1	200	189.2	82.8	68-166	360.6	1.65	30	
Toluene	U	3.7	12	200	22440	-1E+04	76-125	0	0	30	SO
trans-1,2-Dichloroethene	256.4	2.8	9.3	200	16	120	80-140	286	10.9	30	
trans-1,3-Dichloropropene	205.1	8.2	27	200	0	103	56-132	222.9	8.32	30	
Trichloroethene	624.2	3	9.9	200	487.9	68.2	84-130	633.9	1.54	30	S
Trichlorofluoromethane	213.4	2	6.6	200	0	107	60-140	255.3	17.9	30	
Vinyl chloride	812.9	2	6.8	200	541.1	136	50-136	941.2	14.6	30	
Xylenes, Total	18110	13	44	600	16260	309	80-126	17860	1.37	30	SEO
Surr: 1,2-Dichloroethane-d4	*243*	0	0	*200*	0	*122*	*75-120*	230.6	*5.24*	*30*	*S*
Surr: 4-Bromofluorobenzene	*215.7*	0	0	*200*	0	*108*	*80-110*	208.7	*3.3*	*30*	
Surr: Dibromofluoromethane	*257.8*	0	0	*200*	0	*129*	*85-115*	206.5	*22.1*	*30*	*S*
Surr: Toluene-d8	*229.5*	0	0	*200*	0	*115*	*85-110*	230.6	*0.478*	*30*	*S*

The following samples were analyzed in this batch:

1805785-09A	1805785-10A	1805785-11A
1805785-12A	1805785-13A	1805785-14A
1805785-15A	1805785-16A	

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236039a** Units: **µg/L** Analysis Date: **05/16/18 11:26 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5038782** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236039a**	Instrument ID **VMS9**			Method: **SW8260C**				
Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*20.54*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.15*	0	0	*20*	0	*90.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.97*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*20.12*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236039a** Units: **µg/L** Analysis Date: **05/16/18 10:13 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5038781** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23.07	0.33	1.0	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	21.2	0.17	1.0	20	0	106	75-130	0			
1,1,2-Trichloroethane	20.92	0.22	1.0	20	0	105	75-125	0			
1,1-Dichloroethane	23.2	0.48	1.0	20	0	116	68-142	0			
1,1-Dichloroethene	22.76	0.36	1.0	20	0	114	70-145	0			
1,2,3-Trichlorobenzene	19.96	0.29	1.0	20	0	99.8	70-140	0			
1,2,4-Trichlorobenzene	19.56	0.25	1.0	20	0	97.8	70-135	0			
1,2-Dibromo-3-chloropropane	18.88	0.43	1.0	20	0	94.4	60-130	0			
1,2-Dibromoethane	25.28	0.17	1.0	20	0	126	67-155	0			
1,2-Dichlorobenzene	20.04	0.12	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	22.93	0.11	1.0	20	0	115	78-125	0			
1,2-Dichloropropane	23.44	0.34	1.0	20	0	117	75-125	0			
1,3-Dichlorobenzene	20.49	0.13	1.0	20	0	102	75-130	0			
1,4-Dichlorobenzene	20.32	0.13	1.0	20	0	102	75-130	0			
2-Butanone	21.99	0.47	5.0	20	0	110	55-150	0			
2-Hexanone	20.68	0.5	5.0	20	0	103	60-135	0			
4-Methyl-2-pentanone	28.23	0.52	1.0	20	0	141	77-178	0			
Acetone	22.27	0.47	10	20	0	111	60-160	0			
Benzene	21.83	0.42	1.0	20	0	109	85-125	0			
Bromochloromethane	22.08	0.15	1.0	20	0	110	72-141	0			
Bromodichloromethane	20.8	0.22	1.0	20	0	104	75-125	0			
Bromoform	18.39	0.56	1.0	20	0	92	60-125	0			
Bromomethane	19.64	0.29	1.0	20	0	98.2	30-185	0			
Carbon disulfide	20.29	0.39	1.0	20	0	101	60-165	0			
Carbon tetrachloride	21.62	0.32	1.0	20	0	108	65-140	0			
Chlorobenzene	20.71	0.21	1.0	20	0	104	80-120	0			
Chloroethane	20.93	0.68	1.0	20	0	105	50-140	0			
Chloroform	21.8	0.46	1.0	20	0	109	80-130	0			
Chloromethane	17.82	0.68	1.0	20	0	89.1	46-148	0			
cis-1,2-Dichloroethene	23.81	0.38	1.0	20	0	119	75-134	0			
cis-1,3-Dichloropropene	22.76	0.13	1.0	20	0	114	70-130	0			
Dibromochloromethane	17.97	0.2	1.0	20	0	89.8	60-115	0			
Dichlorodifluoromethane	11.6	0.3	1.0	20	0	58	20-120	0			
Ethylbenzene	22.32	0.29	1.0	20	0	112	76-123	0			
Isopropylbenzene	23.85	0.17	1.0	20	0	119	80-127	0			
m,p-Xylene	47.6	0.53	2.0	40	0	119	75-130	0			
Methyl tert-butyl ether	25.18	0.21	1.0	20	0	126	68-129	0			
Methylene chloride	21.4	0.16	5.0	20	0	107	75-140	0			
o-Xylene	23.7	0.19	1.0	20	0	118	76-127	0			
Styrene	25.07	0.19	1.0	20	0	125	83-137	0			
Tetrachloroethene	20.33	0.28	1.0	20	0	102	68-166	0			
Toluene	21	0.32	1.0	20	0	105	76-125	0			
trans-1,2-Dichloroethene	22.52	0.48	1.0	20	0	113	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

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Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

trans-1,3-Dichloropropene	21.61	0.15	1.0	20	0	108	56-132	0
Trichloroethene	22.64	0.33	1.0	20	0	113	84-130	0
Trichlorofluoromethane	18.86	0.24	1.0	20	0	94.3	60-140	0
Vinyl chloride	17.22	0.53	1.0	20	0	86.1	50-136	0
Surr: 1,2-Dichloroethane-d4	*20.88*	0	0	*20*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*21.67*	0	0	*20*	0	*108*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.82*	0	0	*20*	0	*99.1*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/17/18 08:22 AM**
Client ID: **RW-12** Run ID: **VMS9_180516B** SeqNo: **5038801** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2906	3.3	10	200	2807	49.6	75-130	0			SEO
1,1,2,2-Tetrachloroethane	193.9	1.7	10	200	0	97	75-130	0			
1,1,2-Trichloroethane	403.4	2.2	10	200	184.9	109	75-125	0			
1,1-Dichloroethane	1965	4.8	10	200	1374	296	68-142	0			SEO
1,1-Dichloroethene	604.7	3.6	10	200	245.1	180	70-145	0			S
1,2,3-Trichlorobenzene	183.3	2.9	10	200	0	91.6	70-140	0			
1,2,4-Trichlorobenzene	181.1	2.5	10	200	0	90.6	70-135	0			
1,2-Dibromo-3-chloropropane	182.5	4.3	10	200	0	91.2	60-130	0			
1,2-Dibromoethane	259	1.7	10	200	0	130	67-155	0			
1,2-Dichlorobenzene	196.2	1.2	10	200	7.4	94.4	70-130	0			
1,2-Dichloroethane	477.1	1.1	10	200	208.9	134	78-125	0			S
1,2-Dichloropropane	350.3	3.4	10	200	92.4	129	75-125	0			S
1,3-Dichlorobenzene	195.6	1.3	10	200	0	97.8	75-130	0			
1,4-Dichlorobenzene	194.9	1.3	10	200	0	97.4	75-130	0			
2-Butanone	18500	4.7	50	200	14520	1990	55-150	0			SEO
2-Hexanone	209.6	5	50	200	25.9	91.8	60-135	0			
4-Methyl-2-pentanone	8582	5.2	10	200	7826	378	77-178	0			SEO
Acetone	80990	4.7	100	200	61690	9650	60-160	0			SEO
Benzene	355.7	4.2	10	200	96.6	130	85-125	0			S
Bromochloromethane	246.9	1.5	10	200	0	123	72-141	0			
Bromodichloromethane	231.2	2.2	10	200	0	116	75-125	0			
Bromoform	188.1	5.6	10	200	0	94	60-125	0			
Bromomethane	705.4	2.9	10	200	0	353	30-185	0			S
Carbon disulfide	296.9	3.9	10	200	0	148	60-165	0			
Carbon tetrachloride	244.1	3.2	10	200	0	122	65-140	0			
Chlorobenzene	210.6	2.1	10	200	0	105	80-120	0			
Chloroethane	512.3	6.8	10	200	262.1	125	50-140	0			
Chloroform	312.8	4.6	10	200	55.9	128	80-130	0			
Chloromethane	207.4	6.8	10	200	0	104	46-148	0			
cis-1,2-Dichloroethene	10960	3.8	10	200	8487	1230	75-134	0			SEO
cis-1,3-Dichloropropene	237.9	1.3	10	200	0	119	70-130	0			
Dibromochloromethane	195.8	2	10	200	0	97.9	60-115	0			
Dichlorodifluoromethane	181	3	10	200	0	90.5	20-120	0			
Ethylbenzene	4712	2.9	10	200	4225	244	76-123	0			SEO
Isopropylbenzene	284.2	1.7	10	200	37	124	80-127	0			
m,p-Xylene	13400	5.3	20	400	12270	283	75-130	0			SEO
Methyl tert-butyl ether	265.9	2.1	10	200	6.1	130	68-129	0			S
Methylene chloride	2487	1.6	50	200	1778	354	75-140	0			SEO
o-Xylene	4462	1.9	10	200	3986	238	76-127	0			SEO
Styrene	292.3	1.9	10	200	33.5	129	83-137	0			
Tetrachloroethene	360.6	2.8	10	200	189.2	85.7	68-166	0			
Toluene	U	3.2	10	200	22440	-1E+04	76-125	0			SO
trans-1,2-Dichloroethene	286	4.8	10	200	16	135	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

trans-1,3-Dichloropropene	222.9	1.5	10	200	0	111	56-132	0	
Trichloroethene	633.9	3.3	10	200	487.9	73	84-130	0	S
Trichlorofluoromethane	255.3	2.4	10	200	0	128	60-140	0	
Vinyl chloride	941.2	5.3	10	200	541.1	200	50-136	0	S
Surr: 1,2-Dichloroethane-d4	*230.6*	0	0	*200*	0	*115*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*208.7*	0	0	*200*	0	*104*	*80-110*	0	
Surr: Dibromofluoromethane	*206.5*	0	0	*200*	0	*103*	*85-115*	0	
Surr: Toluene-d8	*230.6*	0	0	*200*	0	*115*	*85-110*	0	*S*

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/17/18 08:47 AM**
Client ID: **RW-12** Run ID: **VMS9_180516B** SeqNo: **5038802** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	3337	3.3	10	200	2807	265	75-130	2906	13.8	30	SEO
1,1,2,2-Tetrachloroethane	191.3	1.7	10	200	0	95.6	75-130	193.9	1.35	30	
1,1,2-Trichloroethane	383.4	2.2	10	200	184.9	99.2	75-125	403.4	5.08	30	
1,1-Dichloroethane	1758	4.8	10	200	1374	192	68-142	1965	11.1	30	SEO
1,1-Dichloroethene	538.1	3.6	10	200	245.1	146	70-145	604.7	11.7	30	S
1,2,3-Trichlorobenzene	183.1	2.9	10	200	0	91.6	70-140	183.3	0.109	30	
1,2,4-Trichlorobenzene	183.6	2.5	10	200	0	91.8	70-135	181.1	1.37	30	
1,2-Dibromo-3-chloropropane	176.8	4.3	10	200	0	88.4	60-130	182.5	3.17	30	
1,2-Dibromoethane	244.4	1.7	10	200	0	122	67-155	259	5.8	30	
1,2-Dichlorobenzene	199.6	1.2	10	200	7.4	96.1	70-130	196.2	1.72	30	
1,2-Dichloroethane	503.5	1.1	10	200	208.9	147	78-125	477.1	5.38	30	S
1,2-Dichloropropane	366.5	3.4	10	200	92.4	137	75-125	350.3	4.52	30	S
1,3-Dichlorobenzene	196.6	1.3	10	200	0	98.3	75-130	195.6	0.51	30	
1,4-Dichlorobenzene	196.6	1.3	10	200	0	98.3	75-130	194.9	0.868	30	
2-Butanone	17160	4.7	50	200	14520	1320	55-150	18500	7.5	30	SEO
2-Hexanone	211	5	50	200	25.9	92.6	60-135	209.6	0.666	30	
4-Methyl-2-pentanone	8763	5.2	10	200	7826	468	77-178	8582	2.08	30	SEO
Acetone	67730	4.7	100	200	61690	3020	60-160	80990	17.8	30	SEO
Benzene	346.4	4.2	10	200	96.6	125	85-125	355.7	2.65	30	
Bromochloromethane	224.2	1.5	10	200	0	112	72-141	246.9	9.64	30	
Bromodichloromethane	249	2.2	10	200	0	124	75-125	231.2	7.41	30	
Bromoform	174	5.6	10	200	0	87	60-125	188.1	7.79	30	
Bromomethane	814.8	2.9	10	200	0	407	30-185	705.4	14.4	30	S
Carbon disulfide	259.8	3.9	10	200	0	130	60-165	296.9	13.3	30	
Carbon tetrachloride	288.5	3.2	10	200	0	144	65-140	244.1	16.7	30	S
Chlorobenzene	215.7	2.1	10	200	0	108	80-120	210.6	2.39	30	
Chloroethane	452.4	6.8	10	200	262.1	95.2	50-140	512.3	12.4	30	
Chloroform	302.6	4.6	10	200	55.9	123	80-130	312.8	3.31	30	
Chloromethane	183.8	6.8	10	200	0	91.9	46-148	207.4	12.1	30	
cis-1,2-Dichloroethene	9820	3.8	10	200	8487	667	75-134	10960	10.9	30	SEO
cis-1,3-Dichloropropene	248.6	1.3	10	200	0	124	70-130	237.9	4.4	30	
Dibromochloromethane	183.5	2	10	200	0	91.8	60-115	195.8	6.49	30	
Dichlorodifluoromethane	153.5	3	10	200	0	76.8	20-120	181	16.4	30	
Ethylbenzene	4797	2.9	10	200	4225	286	76-123	4712	1.78	30	SEO
Isopropylbenzene	288.1	1.7	10	200	37	126	80-127	284.2	1.36	30	
m,p-Xylene	13590	5.3	20	400	12270	330	75-130	13400	1.41	30	SEO
Methyl tert-butyl ether	241.9	2.1	10	200	6.1	118	68-129	265.9	9.45	30	
Methylene chloride	2226	1.6	50	200	1778	224	75-140	2487	11.1	30	SEO
o-Xylene	4519	1.9	10	200	3986	267	76-127	4462	1.28	30	SEO
Styrene	301.8	1.9	10	200	33.5	134	83-137	292.3	3.2	30	
Tetrachloroethene	354.7	2.8	10	200	189.2	82.8	68-166	360.6	1.65	30	
Toluene	U	3.2	10	200	22440	-1E+04	76-125	0	0	30	SO
trans-1,2-Dichloroethene	256.4	4.8	10	200	16	120	80-140	286	10.9	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

trans-1,3-Dichloropropene	205.1	1.5	10	200	0	103	56-132	222.9	8.32	30	
Trichloroethene	624.2	3.3	10	200	487.9	68.2	84-130	633.9	1.54	30	S
Trichlorofluoromethane	213.4	2.4	10	200	0	107	60-140	255.3	17.9	30	
Vinyl chloride	812.9	5.3	10	200	541.1	136	50-136	941.2	14.6	30	
Surr: 1,2-Dichloroethane-d4	*243*	0	0	*200*	0	*122*	*75-120*	230.6	*5.24*	*30*	*S*
Surr: 4-Bromofluorobenzene	*215.7*	0	0	*200*	0	*108*	*80-110*	208.7	*3.3*	*30*	
Surr: Dibromofluoromethane	*257.8*	0	0	*200*	0	*129*	*85-115*	206.5	*22.1*	*30*	*S*
Surr: Toluene-d8	*229.5*	0	0	*200*	0	*115*	*85-110*	230.6	*0.478*	*30*	*S*

The following samples were analyzed in this batch:

1805785-09A	1805785-10A	1805785-11A
1805785-12A	1805785-13A	1805785-14A
1805785-15A	1805785-16A	

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180517-R236094** Units: **µg/L** Analysis Date: **05/18/18 12:12 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5040182** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.28	1.0								
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,1-Dichloropropene	U	0.28	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,3-Trichloropropane	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2,4-Trimethylbenzene	U	0.11	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3,5-Trimethylbenzene	U	0.15	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,3-Dichloropropane	U	0.14	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2,2-Dichloropropane	U	0.31	1.0								
2-Butanone	U	0.47	5.0								
2-Chlorotoluene	U	0.14	1.0								
2-Hexanone	U	0.5	5.0								
4-Chlorotoluene	U	0.18	1.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Benzene	U	0.42	1.0								
Bromobenzene	U	0.13	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dibromomethane	U	0.16	1.0						
Dichlorodifluoromethane	U	0.3	1.0						
Diisopropyl ether	U	0.38	5.0						
Ethylbenzene	U	0.29	1.0						
Hexachlorobutadiene	U	0.15	1.0						
Isopropylbenzene	U	0.17	1.0						
m,p-Xylene	0.64	0.53	2.0						J
Methyl acetate	U	0.26	2.0						
Methyl tert-butyl ether	U	0.21	1.0						
Methylcyclohexane	U	0.09	1.0						
Methylene chloride	U	0.16	5.0						
Naphthalene	0.59	0.14	5.0						J
n-Butylbenzene	U	0.09	1.0						
n-Propylbenzene	U	0.16	1.0						
o-Xylene	U	0.19	1.0						
p-Isopropyltoluene	U	0.1	1.0						
sec-Butylbenzene	U	0.11	1.0						
Styrene	U	0.19	1.0						
tert-Butylbenzene	U	0.1	1.0						
Tetrachloroethene	U	0.28	1.0						
Toluene	U	0.32	1.0						
trans-1,2-Dichloroethene	U	0.48	1.0						
trans-1,3-Dichloropropene	U	0.15	1.0						
Trichloroethene	U	0.33	1.0						
Trichlorofluoromethane	U	0.24	1.0						
Vinyl chloride	U	0.53	1.0						
Xylenes, Total	U	0.74	3.0						
Surr: 1,2-Dichloroethane-d4	*19.52*	0	0	*20*	0	*97.6*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*17.9*	0	0	*20*	0	*89.5*	*80-110*	0	
Surr: Dibromofluoromethane	*19.41*	0	0	*20*	0	*97*	*85-115*	0	
Surr: Toluene-d8	*18.9*	0	0	*20*	0	*94.5*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180517-R236094** Units: **µg/L** Analysis Date: **05/18/18 12:12 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5094580** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Hexanone	U	0.13	0.42								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon disulfide	U	0.23	0.76								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Cyclohexane	U	0.22	0.73								
Dibromochloromethane	U	0.38	1.2								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dibromomethane	U	0.25	0.83					
Dichlorodifluoromethane	U	0.13	0.44					
Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylcyclohexane	U	0.27	0.90					
Methylene chloride	U	0.56	1.8					
Naphthalene	0.65	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.2*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*17.48*	0	0	*20*	0	*87.4*	*80-110*	0
Surr: Dibromofluoromethane	*19.86*	0	0	*20*	0	*99.3*	*85-115*	0
Surr: Toluene-d8	*18.43*	0	0	*20*	0	*92.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236094** Units: **µg/L** Analysis Date: **05/17/18 11:08 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5040163** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.3	0.28	1.0	20	0	106	73-114	0			
1,1,1-Trichloroethane	22.23	0.33	1.0	20	0	111	75-130	0			
1,1,2,2-Tetrachloroethane	20.06	0.17	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	20.17	0.22	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	20.86	0.48	1.0	20	0	104	68-142	0			
1,1-Dichloroethene	26.1	0.36	1.0	20	0	130	70-145	0			
1,1-Dichloropropene	21.4	0.28	1.0	20	0	107	75-135	0			
1,2,3-Trichlorobenzene	21.76	0.29	1.0	20	0	109	70-140	0			
1,2,3-Trichloropropane	20.99	0.29	1.0	20	0	105	75-125	0			
1,2,4-Trichlorobenzene	21.39	0.25	1.0	20	0	107	70-135	0			
1,2,4-Trimethylbenzene	19.42	0.11	1.0	20	0	97.1	75-130	0			
1,2-Dibromo-3-chloropropane	21.79	0.43	1.0	20	0	109	60-130	0			
1,2-Dibromoethane	21.87	0.17	1.0	20	0	109	67-155	0			
1,2-Dichlorobenzene	20.07	0.12	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	20.54	0.11	1.0	20	0	103	78-125	0			
1,2-Dichloropropane	20.6	0.34	1.0	20	0	103	75-125	0			
1,3,5-Trimethylbenzene	19.21	0.15	1.0	20	0	96	75-130	0			
1,3-Dichlorobenzene	20.18	0.13	1.0	20	0	101	75-130	0			
1,3-Dichloropropane	19.57	0.14	1.0	20	0	97.8	75-125	0			
1,4-Dichlorobenzene	21.02	0.13	1.0	20	0	105	75-130	0			
2,2-Dichloropropane	20.29	0.31	1.0	20	0	101	43-150	0			
2-Butanone	19.51	0.47	5.0	20	0	97.6	55-150	0			
2-Chlorotoluene	20.08	0.14	1.0	20	0	100	76-117	0			
2-Hexanone	16.94	0.5	5.0	20	0	84.7	60-135	0			
4-Chlorotoluene	20.42	0.18	1.0	20	0	102	80-125	0			
4-Methyl-2-pentanone	22.71	0.52	1.0	20	0	114	77-178	0			
Benzene	20.64	0.42	1.0	20	0	103	85-125	0			
Bromobenzene	19.12	0.13	1.0	20	0	95.6	80-125	0			
Bromochloromethane	21.22	0.15	1.0	20	0	106	72-141	0			
Bromodichloromethane	20.63	0.22	1.0	20	0	103	75-125	0			
Bromoform	19.23	0.56	1.0	20	0	96.2	60-125	0			
Bromomethane	42.64	0.29	1.0	20	0	213	30-185	0			S
Carbon disulfide	24.98	0.39	1.0	20	0	125	60-165	0			
Carbon tetrachloride	21.58	0.32	1.0	20	0	108	65-140	0			
Chlorobenzene	20.26	0.21	1.0	20	0	101	80-120	0			
Chloroethane	21.45	0.68	1.0	20	0	107	50-140	0			
Chloroform	21.52	0.46	1.0	20	0	108	80-130	0			
Chloromethane	14.82	0.68	1.0	20	0	74.1	46-148	0			
cis-1,2-Dichloroethene	21.78	0.38	1.0	20	0	109	75-134	0			
cis-1,3-Dichloropropene	20.72	0.13	1.0	20	0	104	70-130	0			
Dibromochloromethane	19.74	0.2	1.0	20	0	98.7	60-115	0			
Dibromomethane	21.49	0.16	1.0	20	0	107	85-125	0			
Dichlorodifluoromethane	14.99	0.3	1.0	20	0	75	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Diisopropyl ether	19.77	0.38	5.0	20	0	98.8	58-133	0
Ethylbenzene	20.08	0.29	1.0	20	0	100	76-123	0
Hexachlorobutadiene	22.17	0.15	1.0	20	0	111	70-155	0
Isopropylbenzene	20.42	0.17	1.0	20	0	102	80-127	0
m,p-Xylene	37.74	0.53	2.0	40	0	94.4	75-130	0
Methyl tert-butyl ether	19.2	0.21	1.0	20	0	96	68-129	0
Methylene chloride	22.8	0.16	5.0	20	0	114	75-140	0
Naphthalene	19.19	0.14	5.0	20	0	96	55-160	0
n-Butylbenzene	20.17	0.09	1.0	20	0	101	75-145	0
n-Propylbenzene	19.02	0.16	1.0	20	0	95.1	76-116	0
o-Xylene	19.84	0.19	1.0	20	0	99.2	76-127	0
p-Isopropyltoluene	19.71	0.1	1.0	20	0	98.6	61-164	0
sec-Butylbenzene	19.22	0.11	1.0	20	0	96.1	80-134	0
Styrene	21.47	0.19	1.0	20	0	107	83-137	0
tert-Butylbenzene	20.33	0.1	1.0	20	0	102	70-130	0
Tetrachloroethene	21.05	0.28	1.0	20	0	105	68-166	0
Toluene	18.18	0.32	1.0	20	0	90.9	76-125	0
trans-1,2-Dichloroethene	21.94	0.48	1.0	20	0	110	80-140	0
trans-1,3-Dichloropropene	19.76	0.15	1.0	20	0	98.8	56-132	0
Trichloroethene	22.17	0.33	1.0	20	0	111	84-130	0
Trichlorofluoromethane	19.51	0.24	1.0	20	0	97.6	60-140	0
Vinyl chloride	19.02	0.53	1.0	20	0	95.1	50-136	0
Xylenes, Total	57.58	0.74	3.0	60	0	96	76-127	0
Surr: 1,2-Dichloroethane-d4	*19.63*	0	0	*20*	0	*98.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.93*	0	0	*20*	0	*105*	*85-115*	0
Surr: Toluene-d8	*20.07*	0	0	*20*	0	*100*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236094** Units: **µg/L** Analysis Date: **05/17/18 11:08 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5094568** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	23.2	0.22	0.74	20	0	116	73-114	0			S
1,1,1-Trichloroethane	24.44	0.36	1.2	20	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	23.1	0.19	0.62	20	0	116	75-130	0			
1,1,2-Trichloroethane	22.3	0.4	1.3	20	0	112	75-125	0			
1,1-Dichloroethane	21.72	0.31	1.0	20	0	109	75-133	0			
1,1-Dichloroethene	32.55	0.28	0.92	20	0	163	70-145	0			S
1,1-Dichloropropene	21.3	0.35	1.2	20	0	106	75-135	0			
1,2,3-Trichlorobenzene	22.34	0.17	0.55	20	0	112	70-140	0			
1,2,3-Trichloropropane	22.92	0.11	0.40	20	0	115	75-125	0			
1,2,4-Trichlorobenzene	22	0.21	0.71	20	0	110	70-135	0			
1,2,4-Trimethylbenzene	20.26	0.37	1.2	20	0	101	75-130	0			
1,2-Dibromo-3-chloropropane	25.95	0.97	3.2	20	0	130	60-130	0			
1,2-Dibromoethane	24.18	0.98	3.3	20	0	121	90-195	0			
1,2-Dichlorobenzene	21.64	0.22	0.73	20	0	108	70-130	0			
1,2-Dichloroethane	22.35	0.17	0.55	20	0	112	78-125	0			
1,2-Dichloropropane	22.63	0.25	0.83	20	0	113	75-125	0			
1,3,5-Trimethylbenzene	21.39	0.29	0.95	20	0	107	75-130	0			
1,3-Dichlorobenzene	21.24	0.29	0.96	20	0	106	75-130	0			
1,3-Dichloropropane	20.74	0.18	0.61	20	0	104	75-125	0			
1,4-Dichlorobenzene	21.55	0.21	0.71	20	0	108	75-130	0			
2,2-Dichloropropane	20.4	0.44	1.5	20	0	102	43-150	0			
2-Butanone	23.49	0.58	2.0	20	0	117	55-150	0			
2-Chlorotoluene	20.96	0.32	1.1	20	0	105	84-133	0			
2-Hexanone	19.92	0.13	0.42	20	0	99.6	60-135	0			
4-Chlorotoluene	21.53	0.28	0.95	20	0	108	80-125	0			
4-Methyl-2-pentanone	29.37	0.11	0.40	20	0	147	77-178	0			
Benzene	21.9	0.3	1.0	20	0	110	85-125	0			
Bromobenzene	19.57	0.24	0.80	20	0	97.8	80-125	0			
Bromochloromethane	22.24	0.2	0.66	20	0	111	72-141	0			
Bromodichloromethane	23.06	0.23	0.78	20	0	115	75-125	0			
Bromoform	22.43	0.77	2.6	20	0	112	60-125	0			
Bromomethane	24.75	0.38	1.3	20	0	124	30-185	0			
Carbon disulfide	26.57	0.23	0.76	20	0	133	60-165	0			
Carbon tetrachloride	23.78	0.31	1.0	20	0	119	65-140	0			
Chlorobenzene	22.22	0.27	0.90	20	0	111	80-120	0			
Chloroethane	20.05	0.29	0.97	20	0	100	50-140	0			
Chloroform	23.48	0.26	0.86	20	0	117	80-130	0			
Chloromethane	18.66	0.17	0.57	20	0	93.3	46-148	0			
cis-1,2-Dichloroethene	23.06	0.25	0.85	20	0	115	75-134	0			
cis-1,3-Dichloropropene	22.45	0.39	1.3	20	0	112	70-130	0			
Dibromochloromethane	22.27	0.38	1.2	20	0	111	60-115	0			
Dibromomethane	23.26	0.25	0.83	20	0	116	85-125	0			
Dichlorodifluoromethane	20.7	0.13	0.44	20	0	104	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Ethylbenzene	21.58	0.4	1.3	20	0	108	76-123	0
Hexachlorobutadiene	22.4	0.24	0.80	20	0	112	70-155	0
Isopropylbenzene	21.47	0.31	1.0	20	0	107	80-127	0
m,p-Xylene	40.9	0.98	3.3	40	0	102	75-130	0
Methyl tert-butyl ether	25.24	0.12	0.40	20	0	126	80-130	0
Methylene chloride	26.46	0.56	1.8	20	0	132	75-140	0
Naphthalene	21.16	0.18	0.59	20	0	106	55-160	0
n-Butylbenzene	22.35	0.22	0.73	20	0	112	75-145	0
n-Propylbenzene	20.6	0.24	0.81	20	0	103	83-135	0
o-Xylene	21.16	0.35	1.2	20	0	106	80-125	0
p-Isopropyltoluene	20.51	0.14	0.48	20	0	103	61-164	0
sec-Butylbenzene	20.62	0.29	0.98	20	0	103	80-134	0
Styrene	21.9	0.24	0.79	20	0	110	83-137	0
tert-Butylbenzene	21.93	0.34	1.2	20	0	110	70-130	0
Tetrachloroethene	21.76	0.27	0.91	20	0	109	68-166	0
Toluene	21.57	0.37	1.2	20	0	108	76-125	0
trans-1,2-Dichloroethene	22.89	0.28	0.93	20	0	114	80-140	0
trans-1,3-Dichloropropene	21.54	0.82	2.7	20	0	108	56-132	0
Trichloroethene	21.59	0.3	0.99	20	0	108	84-130	0
Trichlorofluoromethane	25.28	0.2	0.66	20	0	126	60-140	0
Vinyl chloride	22.53	0.2	0.68	20	0	113	50-136	0
Xylenes, Total	62.06	1.3	4.4	60	0	103	80-126	0
Surr: 1,2-Dichloroethane-d4	*20.31*	0	0	*20*	0	*102*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.71*	0	0	*20*	0	*93.6*	*80-110*	0
Surr: Dibromofluoromethane	*21.43*	0	0	*20*	0	*107*	*85-115*	0
Surr: Toluene-d8	*19.57*	0	0	*20*	0	*97.8*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **1805786-14A MS** Units: **µg/L** Analysis Date: **05/18/18 07:36 AM**

Client ID: Run ID: **VMS7_180517A** SeqNo: **5040180** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	518	7	25	500	0	104	73-114	0			
1,1,1-Trichloroethane	806.8	8.2	25	500	0	161	75-130	0			S
1,1,2,2-Tetrachloroethane	455	4.2	25	500	0	91	75-130	0			
1,1,2-Trichloroethane	495.2	5.5	25	500	0	99	75-125	0			
1,1-Dichloroethane	603	12	25	500	66.75	107	68-142	0			
1,1-Dichloroethene	776.8	9	25	500	0	155	70-145	0			S
1,1-Dichloropropene	587.5	7	25	500	0	118	75-135	0			
1,2,3-Trichlorobenzene	479.2	7.2	25	500	0	95.8	70-140	0			
1,2,3-Trichloropropane	457.8	7.2	25	500	0	91.6	75-125	0			
1,2,4-Trichlorobenzene	483.5	6.2	25	500	0	96.7	70-135	0			
1,2,4-Trimethylbenzene	456.2	2.8	25	500	0	91.2	75-130	0			
1,2-Dibromo-3-chloropropane	435.5	11	25	500	0	87.1	60-130	0			
1,2-Dibromoethane	494.8	4.2	25	500	0	99	67-155	0			
1,2-Dichlorobenzene	506.8	3	25	500	0	101	70-130	0			
1,2-Dichloroethane	515	2.8	25	500	0	103	78-125	0			
1,2-Dichloropropane	522.5	8.5	25	500	0	104	75-125	0			
1,3,5-Trimethylbenzene	470.5	3.8	25	500	0	94.1	75-130	0			
1,3-Dichlorobenzene	511.8	3.2	25	500	0	102	75-130	0			
1,3-Dichloropropane	487.2	3.5	25	500	0	97.4	75-125	0			
1,4-Dichlorobenzene	521	3.2	25	500	0	104	75-130	0			
2,2-Dichloropropane	434	7.8	25	500	0	86.8	43-150	0			
2-Butanone	446.2	12	120	500	0	89.2	55-150	0			
2-Chlorotoluene	493.5	3.5	25	500	0	98.7	76-117	0			
2-Hexanone	343.5	12	120	500	0	68.7	60-135	0			
4-Chlorotoluene	493.5	4.5	25	500	0	98.7	80-125	0			
4-Methyl-2-pentanone	504	13	25	500	31.25	94.6	77-178	0			
Benzene	552.8	10	25	500	14.75	108	85-125	0			
Bromobenzene	466.2	3.2	25	500	0	93.2	80-125	0			
Bromochloromethane	570.2	3.8	25	500	0	114	72-141	0			
Bromodichloromethane	530.2	5.5	25	500	0	106	75-125	0			
Bromoform	434.5	14	25	500	0	86.9	60-125	0			
Bromomethane	1296	7.2	25	500	0	259	30-185	0			S
Carbon disulfide	657.8	9.8	25	500	0	132	60-165	0			
Carbon tetrachloride	575.2	8	25	500	0	115	65-140	0			
Chlorobenzene	514.5	5.2	25	500	0	103	80-120	0			
Chloroethane	2009	17	25	500	1732	55.4	50-140	0			
Chloroform	567.2	12	25	500	0	113	80-130	0			
Chloromethane	408.2	17	25	500	0	81.6	46-148	0			
cis-1,2-Dichloroethene	641	9.5	25	500	3.75	127	75-134	0			
cis-1,3-Dichloropropene	496	3.2	25	500	0	99.2	70-130	0			
Dibromochloromethane	457.2	5	25	500	0	91.4	60-115	0			
Dibromomethane	531.5	4	25	500	0	106	85-125	0			
Dichlorodifluoromethane	459.2	7.5	25	500	0	91.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Diisopropyl ether	481.5	9.5	120	500	0	96.3	58-133	0	
Ethylbenzene	502.5	7.2	25	500	8.25	98.8	76-123	0	
Hexachlorobutadiene	547	3.8	25	500	0	109	70-155	0	
Isopropylbenzene	522	4.2	25	500	0	104	80-127	0	
m,p-Xylene	997	13	50	1000	19.75	97.7	75-130	0	
Methyl tert-butyl ether	513.5	5.2	25	500	0	103	68-129	0	
Methylene chloride	658.2	4	120	500	0	132	75-140	0	
Naphthalene	407.8	3.5	120	500	0	81.6	55-160	0	
n-Butylbenzene	499.5	2.2	25	500	0	99.9	75-145	0	
n-Propylbenzene	461.2	4	25	500	0	92.2	76-116	0	
o-Xylene	498	4.8	25	500	12	97.2	76-127	0	
p-Isopropyltoluene	528	2.5	25	500	0	106	61-164	0	
sec-Butylbenzene	518	2.8	25	500	0	104	80-134	0	
Styrene	536	4.8	25	500	0	107	83-137	0	
tert-Butylbenzene	494.5	2.5	25	500	0	98.9	70-130	0	
Tetrachloroethene	578.5	7	25	500	0	116	68-166	0	
Toluene	991.5	8	25	500	681.5	62	76-125	0	S
trans-1,2-Dichloroethene	643.5	12	25	500	49.5	119	80-140	0	
trans-1,3-Dichloropropene	449.2	3.8	25	500	0	89.8	56-132	0	
Trichloroethene	843.8	8.2	25	500	0	169	84-130	0	S
Trichlorofluoromethane	598.5	6	25	500	0	120	60-140	0	
Vinyl chloride	541	13	25	500	0	108	50-136	0	
Xylenes, Total	1495	18	75	1500	31.75	97.6	76-127	0	
Surr: 1,2-Dichloroethane-d4	*521.2*	0	0	*500*	0	*104*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*490.8*	0	0	*500*	0	*98.2*	*80-110*	0	
Surr: Dibromofluoromethane	*529.8*	0	0	*500*	0	*106*	*85-115*	0	
Surr: Toluene-d8	*482.5*	0	0	*500*	0	*96.5*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **1805786-14A MS** Units: **µg/L** Analysis Date: **05/18/18 07:36 AM**

Client ID: Run ID: **VMS7_180517A** SeqNo: **5094578** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	518	5.6	18	500	0	104	73-114	0			
1,1,1-Trichloroethane	806.8	9	30	500	0	161	75-130	0			S
1,1,2,2-Tetrachloroethane	455	4.6	16	500	0	91	75-130	0			
1,1,2-Trichloroethane	495.2	10	33	500	0	99	75-125	0			
1,1-Dichloroethane	603	7.7	26	500	69.5	107	75-133	0			
1,1-Dichloroethene	776.8	6.9	23	500	0	155	70-145	0			S
1,1-Dichloropropene	587.5	8.8	30	500	0	118	75-135	0			
1,2,3-Trichlorobenzene	479.2	4.2	14	500	0	95.8	70-140	0			
1,2,3-Trichloropropane	457.8	2.8	10	500	0	91.6	75-125	0			
1,2,4-Trichlorobenzene	483.5	5.4	18	500	0	96.7	70-135	0			
1,2,4-Trimethylbenzene	456.2	9.3	31	500	0	91.2	75-130	0			
1,2-Dibromo-3-chloropropane	435.5	24	81	500	0	87.1	60-130	0			
1,2-Dibromoethane	494.8	25	82	500	0	99	90-195	0			
1,2-Dichlorobenzene	506.8	5.4	18	500	0	101	70-130	0			
1,2-Dichloroethane	515	4.2	14	500	0	103	78-125	0			
1,2-Dichloropropane	522.5	6.2	21	500	0	104	75-125	0			
1,3,5-Trimethylbenzene	470.5	7.2	24	500	0	94.1	75-130	0			
1,3-Dichlorobenzene	511.8	7.2	24	500	0	102	75-130	0			
1,3-Dichloropropane	487.2	4.6	15	500	0	97.4	75-125	0			
1,4-Dichlorobenzene	521	5.3	18	500	0	104	75-130	0			
2,2-Dichloropropane	434	11	37	500	0	86.8	43-150	0			
2-Butanone	446.2	15	49	500	0	89.2	55-150	0			
2-Chlorotoluene	493.5	8.1	27	500	0	98.7	84-133	0			
2-Hexanone	343.5	3.2	10	500	0	68.7	60-135	0			
4-Chlorotoluene	493.5	7.1	24	500	0	98.7	80-125	0			
4-Methyl-2-pentanone	504	2.8	10	500	40.5	92.7	77-178	0			
Benzene	552.8	7.6	25	500	15.75	107	85-125	0			
Bromobenzene	466.2	6	20	500	0	93.2	80-125	0			
Bromochloromethane	570.2	4.9	16	500	0	114	72-141	0			
Bromodichloromethane	530.2	5.8	20	500	0	106	75-125	0			
Bromoform	434.5	19	64	500	0	86.9	60-125	0			
Bromomethane	1296	9.4	32	500	0	259	30-185	0			S
Carbon disulfide	657.8	5.7	19	500	0	132	60-165	0			
Carbon tetrachloride	575.2	7.8	26	500	0	115	65-140	0			
Chlorobenzene	514.5	6.8	22	500	0	103	80-120	0			
Chloroethane	2009	7.3	24	500	1559	90	50-140	0			
Chloroform	567.2	6.4	22	500	0	113	80-130	0			
Chloromethane	408.2	4.3	14	500	0	81.6	46-148	0			
cis-1,2-Dichloroethene	641	6.4	21	500	0	128	75-134	0			
cis-1,3-Dichloropropene	496	9.8	33	500	0	99.2	70-130	0			
Dibromochloromethane	457.2	9.4	31	500	0	91.4	60-115	0			
Dibromomethane	531.5	6.2	21	500	0	106	85-125	0			
Dichlorodifluoromethane	459.2	3.3	11	500	0	91.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Ethylbenzene	502.5	10	34	500	0	100	76-123	0	
Hexachlorobutadiene	547	6	20	500	0	109	70-155	0	
Isopropylbenzene	522	7.8	26	500	0	104	80-127	0	
m,p-Xylene	997	24	82	1000	21.25	97.6	75-130	0	
Methyl tert-butyl ether	513.5	2.9	10	500	0	103	80-130	0	
Methylene chloride	658.2	14	46	500	0	132	75-140	0	
Naphthalene	407.8	4.4	15	500	0	81.6	55-160	0	B
n-Butylbenzene	499.5	5.4	18	500	0	99.9	75-145	0	
n-Propylbenzene	461.2	6.1	20	500	0	92.2	83-135	0	
o-Xylene	498	8.8	30	500	12.75	97	80-125	0	
p-Isopropyltoluene	528	3.6	12	500	0	106	61-164	0	
sec-Butylbenzene	518	7.4	24	500	0	104	80-134	0	
Styrene	536	6	20	500	0	107	83-137	0	
tert-Butylbenzene	494.5	8.6	29	500	0	98.9	70-130	0	
Tetrachloroethene	578.5	6.8	23	500	0	116	68-166	0	
Toluene	991.5	9.2	30	500	808.5	36.6	76-125	0	S
trans-1,2-Dichloroethene	643.5	7	23	500	51.5	118	80-140	0	
trans-1,3-Dichloropropene	449.2	20	68	500	0	89.8	56-132	0	
Trichloroethene	843.8	7.4	25	500	0	169	84-130	0	S
Trichlorofluoromethane	598.5	5	16	500	0	120	60-140	0	
Vinyl chloride	541	5.1	17	500	0	108	50-136	0	
Xylenes, Total	1495	33	110	1500	12.75	98.8	80-126	0	
Surr: 1,2-Dichloroethane-d4	*521.2*	0	0	*500*	0	*104*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*490.8*	0	0	*500*	0	*98.2*	*80-110*	0	
Surr: Dibromofluoromethane	*529.8*	0	0	*500*	0	*106*	*85-115*	0	
Surr: Toluene-d8	*482.5*	0	0	*500*	0	*96.5*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805786-14A MSD** Units: **µg/L** Analysis Date: **05/18/18 07:57 AM**

Client ID: Run ID: **VMS7_180517A** SeqNo: **5040181** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	570.8	7	25	500	0	114	73-114	518	9.69	30	S
1,1,1-Trichloroethane	676.2	8.2	25	500	0	135	75-130	806.8	17.6	30	S
1,1,2,2-Tetrachloroethane	508.2	4.2	25	500	0	102	75-130	455	11.1	30	
1,1,2-Trichloroethane	523.5	5.5	25	500	0	105	75-125	495.2	5.55	30	
1,1-Dichloroethane	618.5	12	25	500	66.75	110	68-142	603	2.54	30	
1,1-Dichloroethene	723	9	25	500	0	145	70-145	776.8	7.17	30	
1,1-Dichloropropene	574.8	7	25	500	0	115	75-135	587.5	2.19	30	
1,2,3-Trichlorobenzene	512.8	7.2	25	500	0	103	70-140	479.2	6.75	30	
1,2,3-Trichloropropane	524.5	7.2	25	500	0	105	75-125	457.8	13.6	30	
1,2,4-Trichlorobenzene	493.8	6.2	25	500	0	98.8	70-135	483.5	2.1	30	
1,2,4-Trimethylbenzene	510.8	2.8	25	500	0	102	75-130	456.2	11.3	30	
1,2-Dibromo-3-chloropropane	470	11	25	500	0	94	60-130	435.5	7.62	30	
1,2-Dibromoethane	540.8	4.2	25	500	0	108	67-155	494.8	8.88	30	
1,2-Dichlorobenzene	534	3	25	500	0	107	70-130	506.8	5.24	30	
1,2-Dichloroethane	553.5	2.8	25	500	0	111	78-125	515	7.21	30	
1,2-Dichloropropane	552.8	8.5	25	500	0	111	75-125	522.5	5.63	30	
1,3,5-Trimethylbenzene	516.2	3.8	25	500	0	103	75-130	470.5	9.27	30	
1,3-Dichlorobenzene	527.8	3.2	25	500	0	106	75-130	511.8	3.08	30	
1,3-Dichloropropane	539.8	3.5	25	500	0	108	75-125	487.2	10.2	30	
1,4-Dichlorobenzene	537.8	3.2	25	500	0	108	75-130	521	3.16	30	
2,2-Dichloropropane	420	7.8	25	500	0	84	43-150	434	3.28	30	
2-Butanone	483.8	12	120	500	0	96.8	55-150	446.2	8.06	30	
2-Chlorotoluene	536	3.5	25	500	0	107	76-117	493.5	8.26	30	
2-Hexanone	391.5	12	120	500	0	78.3	60-135	343.5	13.1	30	
4-Chlorotoluene	527	4.5	25	500	0	105	80-125	493.5	6.57	30	
4-Methyl-2-pentanone	523.8	13	25	500	31.25	98.5	77-178	504	3.84	30	
Benzene	579	10	25	500	14.75	113	85-125	552.8	4.64	30	
Bromobenzene	483.8	3.2	25	500	0	96.8	80-125	466.2	3.68	30	
Bromochloromethane	567	3.8	25	500	0	113	72-141	570.2	0.572	30	
Bromodichloromethane	566	5.5	25	500	0	113	75-125	530.2	6.52	30	
Bromoform	474	14	25	500	0	94.8	60-125	434.5	8.7	30	
Bromomethane	1232	7.2	25	500	0	246	30-185	1296	4.98	30	S
Carbon disulfide	692	9.8	25	500	0	138	60-165	657.8	5.08	30	
Carbon tetrachloride	581.8	8	25	500	0	116	65-140	575.2	1.12	30	
Chlorobenzene	532.5	5.2	25	500	0	106	80-120	514.5	3.44	30	
Chloroethane	1998	17	25	500	1732	53.2	50-140	2009	0.537	30	
Chloroform	573.5	12	25	500	0	115	80-130	567.2	1.1	30	
Chloromethane	409.2	17	25	500	0	81.8	46-148	408.2	0.245	30	
cis-1,2-Dichloroethene	582.8	9.5	25	500	3.75	116	75-134	641	9.52	30	
cis-1,3-Dichloropropene	511	3.2	25	500	0	102	70-130	496	2.98	30	
Dibromochloromethane	495	5	25	500	0	99	60-115	457.2	7.93	30	
Dibromomethane	542.5	4	25	500	0	108	85-125	531.5	2.05	30	
Dichlorodifluoromethane	465.5	7.5	25	500	0	93.1	20-120	459.2	1.35	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Diisopropyl ether	508.8	9.5	120	500	0	102	58-133	481.5	5.5	30	
Ethylbenzene	526.8	7.2	25	500	8.25	104	76-123	502.5	4.71	30	
Hexachlorobutadiene	555.2	3.8	25	500	0	111	70-155	547	1.5	30	
Isopropylbenzene	537	4.2	25	500	0	107	80-127	522	2.83	30	
m,p-Xylene	1047	13	50	1000	19.75	103	75-130	997	4.87	30	
Methyl tert-butyl ether	520.5	5.2	25	500	0	104	68-129	513.5	1.35	30	
Methylene chloride	630.2	4	120	500	0	126	75-140	658.2	4.35	30	
Naphthalene	444.5	3.5	120	500	0	88.9	55-160	407.8	8.62	30	
n-Butylbenzene	519.2	2.2	25	500	0	104	75-145	499.5	3.88	30	
n-Propylbenzene	505	4	25	500	0	101	76-116	461.2	9.06	30	
o-Xylene	541.8	4.8	25	500	12	106	76-127	498	8.42	30	
p-Isopropyltoluene	539.2	2.5	25	500	0	108	61-164	528	2.11	30	
sec-Butylbenzene	537.8	2.8	25	500	0	108	80-134	518	3.74	30	
Styrene	589	4.8	25	500	0	118	83-137	536	9.42	30	
tert-Butylbenzene	523.5	2.5	25	500	0	105	70-130	494.5	5.7	30	
Tetrachloroethene	588	7	25	500	0	118	68-166	578.5	1.63	30	
Toluene	1057	8	25	500	681.5	75.2	76-125	991.5	6.42	30	S
trans-1,2-Dichloroethene	659.8	12	25	500	49.5	122	80-140	643.5	2.49	30	
trans-1,3-Dichloropropene	464.8	3.8	25	500	0	93	56-132	449.2	3.39	30	
Trichloroethene	663	8.2	25	500	0	133	84-130	843.8	24	30	S
Trichlorofluoromethane	626.8	6	25	500	0	125	60-140	598.5	4.61	30	
Vinyl chloride	564	13	25	500	0	113	50-136	541	4.16	30	
Xylenes, Total	1588	18	75	1500	31.75	104	76-127	1495	6.06	30	
Surr: 1,2-Dichloroethane-d4	*512*	0	0	*500*	0	*102*	*75-120*	521.2	*1.79*	*30*	
Surr: 4-Bromofluorobenzene	*498*	0	0	*500*	0	*99.6*	*80-110*	490.8	*1.47*	*30*	
Surr: Dibromofluoromethane	*517.8*	0	0	*500*	0	*104*	*85-115*	529.8	*2.29*	*30*	
Surr: Toluene-d8	*482.2*	0	0	*500*	0	*96.4*	*85-110*	482.5	*0.0518*	*30*	

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805786-14A MSD** Units: **µg/L** Analysis Date: **05/18/18 07:57 AM**

Client ID: Run ID: **VMS7_180517A** SeqNo: **5094579** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	570.8	5.6	18	500	0	114	73-114	518	9.69	30	S
1,1,1-Trichloroethane	676.2	9	30	500	0	135	75-130	806.8	17.6	30	S
1,1,2,2-Tetrachloroethane	508.2	4.6	16	500	0	102	75-130	455	11.1	30	
1,1,2-Trichloroethane	523.5	10	33	500	0	105	75-125	495.2	5.55	30	
1,1-Dichloroethane	618.5	7.7	26	500	69.5	110	75-133	603	2.54	30	
1,1-Dichloroethene	723	6.9	23	500	0	145	70-145	776.8	7.17	30	
1,1-Dichloropropene	574.8	8.8	30	500	0	115	75-135	587.5	2.19	30	
1,2,3-Trichlorobenzene	512.8	4.2	14	500	0	103	70-140	479.2	6.75	30	
1,2,3-Trichloropropane	524.5	2.8	10	500	0	105	75-125	457.8	13.6	30	
1,2,4-Trichlorobenzene	493.8	5.4	18	500	0	98.8	70-135	483.5	2.1	30	
1,2,4-Trimethylbenzene	510.8	9.3	31	500	0	102	75-130	456.2	11.3	30	
1,2-Dibromo-3-chloropropane	470	24	81	500	0	94	60-130	435.5	7.62	30	
1,2-Dibromoethane	540.8	25	82	500	0	108	90-195	494.8	8.88	30	
1,2-Dichlorobenzene	534	5.4	18	500	0	107	70-130	506.8	5.24	30	
1,2-Dichloroethane	553.5	4.2	14	500	0	111	78-125	515	7.21	30	
1,2-Dichloropropane	552.8	6.2	21	500	0	111	75-125	522.5	5.63	30	
1,3,5-Trimethylbenzene	516.2	7.2	24	500	0	103	75-130	470.5	9.27	30	
1,3-Dichlorobenzene	527.8	7.2	24	500	0	106	75-130	511.8	3.08	30	
1,3-Dichloropropane	539.8	4.6	15	500	0	108	75-125	487.2	10.2	30	
1,4-Dichlorobenzene	537.8	5.3	18	500	0	108	75-130	521	3.16	30	
2,2-Dichloropropane	420	11	37	500	0	84	43-150	434	3.28	30	
2-Butanone	483.8	15	49	500	0	96.8	55-150	446.2	8.06	30	
2-Chlorotoluene	536	8.1	27	500	0	107	84-133	493.5	8.26	30	
2-Hexanone	391.5	3.2	10	500	0	78.3	60-135	343.5	13.1	30	
4-Chlorotoluene	527	7.1	24	500	0	105	80-125	493.5	6.57	30	
4-Methyl-2-pentanone	523.8	2.8	10	500	40.5	96.6	77-178	504	3.84	30	
Benzene	579	7.6	25	500	15.75	113	85-125	552.8	4.64	30	
Bromobenzene	483.8	6	20	500	0	96.8	80-125	466.2	3.68	30	
Bromochloromethane	567	4.9	16	500	0	113	72-141	570.2	0.572	30	
Bromodichloromethane	566	5.8	20	500	0	113	75-125	530.2	6.52	30	
Bromoform	474	19	64	500	0	94.8	60-125	434.5	8.7	30	
Bromomethane	1232	9.4	32	500	0	246	30-185	1296	4.98	30	S
Carbon disulfide	692	5.7	19	500	0	138	60-165	657.8	5.08	30	
Carbon tetrachloride	581.8	7.8	26	500	0	116	65-140	575.2	1.12	30	
Chlorobenzene	532.5	6.8	22	500	0	106	80-120	514.5	3.44	30	
Chloroethane	1998	7.3	24	500	1559	87.8	50-140	2009	0.537	30	
Chloroform	573.5	6.4	22	500	0	115	80-130	567.2	1.1	30	
Chloromethane	409.2	4.3	14	500	0	81.8	46-148	408.2	0.245	30	
cis-1,2-Dichloroethene	582.8	6.4	21	500	0	117	75-134	641	9.52	30	
cis-1,3-Dichloropropene	511	9.8	33	500	0	102	70-130	496	2.98	30	
Dibromochloromethane	495	9.4	31	500	0	99	60-115	457.2	7.93	30	
Dibromomethane	542.5	6.2	21	500	0	108	85-125	531.5	2.05	30	
Dichlorodifluoromethane	465.5	3.3	11	500	0	93.1	20-120	459.2	1.35	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Ethylbenzene	526.8	10	34	500	0	105	76-123	502.5	4.71	30	
Hexachlorobutadiene	555.2	6	20	500	0	111	70-155	547	1.5	30	
Isopropylbenzene	537	7.8	26	500	0	107	80-127	522	2.83	30	
m,p-Xylene	1047	24	82	1000	21.25	103	75-130	997	4.87	30	
Methyl tert-butyl ether	520.5	2.9	10	500	0	104	80-130	513.5	1.35	30	
Methylene chloride	630.2	14	46	500	0	126	75-140	658.2	4.35	30	
Naphthalene	444.5	4.4	15	500	0	88.9	55-160	407.8	8.62	30	B
n-Butylbenzene	519.2	5.4	18	500	0	104	75-145	499.5	3.88	30	
n-Propylbenzene	505	6.1	20	500	0	101	83-135	461.2	9.06	30	
o-Xylene	541.8	8.8	30	500	12.75	106	80-125	498	8.42	30	
p-Isopropyltoluene	539.2	3.6	12	500	0	108	61-164	528	2.11	30	
sec-Butylbenzene	537.8	7.4	24	500	0	108	80-134	518	3.74	30	
Styrene	589	6	20	500	0	118	83-137	536	9.42	30	
tert-Butylbenzene	523.5	8.6	29	500	0	105	70-130	494.5	5.7	30	
Tetrachloroethene	588	6.8	23	500	0	118	68-166	578.5	1.63	30	
Toluene	1057	9.2	30	500	808.5	49.8	76-125	991.5	6.42	30	S
trans-1,2-Dichloroethene	659.8	7	23	500	51.5	122	80-140	643.5	2.49	30	
trans-1,3-Dichloropropene	464.8	20	68	500	0	93	56-132	449.2	3.39	30	
Trichloroethene	663	7.4	25	500	0	133	84-130	843.8	24	30	S
Trichlorofluoromethane	626.8	5	16	500	0	125	60-140	598.5	4.61	30	
Vinyl chloride	564	5.1	17	500	0	113	50-136	541	4.16	30	
Xylenes, Total	1588	33	110	1500	12.75	105	80-126	1495	6.06	30	
Surr: 1,2-Dichloroethane-d4	*512*	0	0	*500*	0	*102*	*75-120*	521.2	*1.79*	*30*	
Surr: 4-Bromofluorobenzene	*498*	0	0	*500*	0	*99.6*	*80-110*	490.8	*1.47*	*30*	
Surr: Dibromofluoromethane	*517.8*	0	0	*500*	0	*104*	*85-115*	529.8	*2.29*	*30*	
Surr: Toluene-d8	*482.2*	0	0	*500*	0	*96.4*	*85-110*	482.5	*0.0518*	*30*	

The following samples were analyzed in this batch: 1805785-04A 1805785-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:52 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041076** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
Ethylbenzene	U	0.29	1.0								
m,p-Xylene	U	0.53	2.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								
Tetrachloroethene	U	0.28	1.0								
Toluene	U	0.32	1.0								
Trichloroethene	U	0.33	1.0								
Vinyl chloride	U	0.53	1.0								
Xylenes, Total	U	0.74	3.0								
Surr: 1,2-Dichloroethane-d4	*19.93*	0	0	*20*	0	*99.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.69*	0	0	*20*	0	*98.4*	*80-110*	0			
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.68*	0	0	*20*	0	*98.4*	*85-110*	0			

MBLK Sample ID: **VBLKSW-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:52 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093040** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	U	0.4	1.3								
m,p-Xylene	U	0.98	3.3								
Methylene chloride	U	0.56	1.8								
o-Xylene	U	0.35	1.2								
Tetrachloroethene	U	0.27	0.91								
Toluene	U	0.37	1.2								
Trichloroethene	U	0.3	0.99								
Vinyl chloride	U	0.2	0.68								
Xylenes, Total	U	1.3	4.4								
Surr: 1,2-Dichloroethane-d4	*19.93*	0	0	*20*	0	*99.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.69*	0	0	*20*	0	*98.4*	*80-110*	0			
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.68*	0	0	*20*	0	*98.4*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:04 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041075** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	19.97	0.29	1.0	20	0	99.8	76-123	0			
m,p-Xylene	40.04	0.53	2.0	40	0	100	75-130	0			
Methylene chloride	17.65	0.16	5.0	20	0	88.2	75-140	0			
o-Xylene	19.31	0.19	1.0	20	0	96.6	76-127	0			
Tetrachloroethene	20.78	0.28	1.0	20	0	104	68-166	0			
Toluene	20.08	0.32	1.0	20	0	100	76-125	0			
Trichloroethene	19.28	0.33	1.0	20	0	96.4	84-130	0			
Vinyl chloride	17.33	0.53	1.0	20	0	86.6	50-136	0			
Xylenes, Total	59.35	0.74	3.0	60	0	98.9	76-127	0			
Surr: 1,2-Dichloroethane-d4	*19.66*	0	0	*20*	0	*98.3*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.57*	0	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.37*	0	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	0	*20*	0	*98.1*	*85-110*	0			

LCS Sample ID: **VLCSW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:04 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093039** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	19.97	0.4	1.3	20	0	99.8	76-123	0			
m,p-Xylene	40.04	0.98	3.3	40	0	100	75-130	0			
Methylene chloride	17.65	0.56	1.8	20	0	88.2	75-140	0			
o-Xylene	19.31	0.35	1.2	20	0	96.6	80-125	0			
Tetrachloroethene	20.78	0.27	0.91	20	0	104	68-166	0			
Toluene	20.08	0.37	1.2	20	0	100	76-125	0			
Trichloroethene	19.28	0.3	0.99	20	0	96.4	84-130	0			
Vinyl chloride	17.33	0.2	0.68	20	0	86.6	50-136	0			
Xylenes, Total	59.35	1.3	4.4	60	0	98.9	80-126	0			
Surr: 1,2-Dichloroethane-d4	*19.66*	0	0	*20*	0	*98.3*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.57*	0	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.37*	0	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	0	*20*	0	*98.1*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/18/18 05:30 PM**
Client ID: **TW-1** Run ID: **VMS8_180518A** SeqNo: **5041559** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	3884	29	100	2000	1603	114	76-123	0			
m,p-Xylene	10630	53	200	4000	5842	120	75-130	0			
Methylene chloride	1869	16	500	2000	0	93.4	75-140	0			
o-Xylene	3805	19	100	2000	1596	110	76-127	0			
Tetrachloroethene	2285	28	100	2000	0	114	68-166	0			
Toluene	2558	32	100	2000	512	102	76-125	0			
Trichloroethene	2028	33	100	2000	0	101	84-130	0			
Vinyl chloride	1799	53	100	2000	0	90	50-136	0			
Xylenes, Total	14440	74	300	6000	7438	117	76-127	0			
Surr: 1,2-Dichloroethane-d4	*1875*	0	0	*2000*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1929*	0	0	*2000*	0	*96.4*	*80-110*	0			
Surr: Dibromofluoromethane	*2060*	0	0	*2000*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/18/18 05:30 PM**
Client ID: **TW-1** Run ID: **VMS8_180518A** SeqNo: **5093046** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	3884	40	130	2000	1603	114	76-123	0			
m,p-Xylene	10630	98	330	4000	5842	120	75-130	0			
Methylene chloride	1869	56	180	2000	0	93.4	75-140	0			
o-Xylene	3805	35	120	2000	1596	110	80-125	0			
Tetrachloroethene	2285	27	91	2000	0	114	68-166	0			
Toluene	2558	37	120	2000	512	102	76-125	0			
Trichloroethene	2028	30	99	2000	0	101	84-130	0			
Vinyl chloride	1799	20	68	2000	0	90	50-136	0			
Xylenes, Total	14440	130	440	6000	7438	117	80-126	0			
Surr: 1,2-Dichloroethane-d4	*1875*	0	0	*2000*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1929*	0	0	*2000*	0	*96.4*	*80-110*	0			
Surr: Dibromofluoromethane	*2060*	0	0	*2000*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/18/18 05:46 PM**
Client ID: **TW-1** Run ID: **VMS8_180518A** SeqNo: **5041560** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	3958	29	100	2000	1603	118	76-123	3884	1.89	30	
m,p-Xylene	10900	53	200	4000	5842	126	75-130	10630	2.46	30	
Methylene chloride	1912	16	500	2000	0	95.6	75-140	1869	2.27	30	
o-Xylene	3843	19	100	2000	1596	112	76-127	3805	0.994	30	
Tetrachloroethene	2396	28	100	2000	0	120	68-166	2285	4.74	30	
Toluene	2657	32	100	2000	512	107	76-125	2558	3.8	30	
Trichloroethene	2137	33	100	2000	0	107	84-130	2028	5.23	30	
Vinyl chloride	1849	53	100	2000	0	92.4	50-136	1799	2.74	30	
Xylenes, Total	14740	74	300	6000	7438	122	76-127	14440	2.08	30	
Surr: 1,2-Dichloroethane-d4	*1981*	0	0	*2000*	0	*99*	*75-120*	1875	*5.5*	*30*	
Surr: 4-Bromofluorobenzene	*1946*	0	0	*2000*	0	*97.3*	*80-110*	1929	*0.877*	*30*	
Surr: Dibromofluoromethane	*2003*	0	0	*2000*	0	*100*	*85-115*	2060	*2.81*	*30*	
Surr: Toluene-d8	*1939*	0	0	*2000*	0	*97*	*85-110*	1899	*2.08*	*30*	

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/18/18 05:46 PM**
Client ID: **TW-1** Run ID: **VMS8_180518A** SeqNo: **5093048** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	3958	40	130	2000	1603	118	76-123	3884	1.89	30	
m,p-Xylene	10900	98	330	4000	5842	126	75-130	10630	2.46	30	
Methylene chloride	1912	56	180	2000	0	95.6	75-140	1869	2.27	30	
o-Xylene	3843	35	120	2000	1596	112	80-125	3805	0.994	30	
Tetrachloroethene	2396	27	91	2000	0	120	68-166	2285	4.74	30	
Toluene	2657	37	120	2000	512	107	76-125	2558	3.8	30	
Trichloroethene	2137	30	99	2000	0	107	84-130	2028	5.23	30	
Vinyl chloride	1849	20	68	2000	0	92.4	50-136	1799	2.74	30	
Xylenes, Total	14740	130	440	6000	7438	122	80-126	14440	2.08	30	
Surr: 1,2-Dichloroethane-d4	*1981*	0	0	*2000*	0	*99*	*75-120*	1875	*5.5*	*30*	
Surr: 4-Bromofluorobenzene	*1946*	0	0	*2000*	0	*97.3*	*80-110*	1929	*0.877*	*30*	
Surr: Dibromofluoromethane	*2003*	0	0	*2000*	0	*100*	*85-115*	2060	*2.81*	*30*	
Surr: Toluene-d8	*1939*	0	0	*2000*	0	*97*	*85-110*	1899	*2.08*	*30*	

The following samples were analyzed in this batch: 1805785-06A 1805785-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236141** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180417-R236141** Units: **µg/L** Analysis Date: **05/17/18 05:23 PM**
Client ID: Run ID: **VMS8_180517B** SeqNo: **5093033** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	U	0.11	0.40								
Ethylbenzene	U	0.4	1.3								
m,p-Xylene	U	0.98	3.3								
o-Xylene	U	0.35	1.2								
Xylenes, Total	U	1.3	4.4								
Surr: 1,2-Dichloroethane-d4	*18.77*	0	0	*20*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.26*	0	0	*20*	0	*96.3*	*80-110*	0			
Surr: Dibromofluoromethane	*19.87*	0	0	*20*	0	*99.4*	*85-115*	0			
Surr: Toluene-d8	*19.46*	0	0	*20*	0	*97.3*	*85-110*	0			

LCS Sample ID: **VLCSW1-180517-R236141** Units: **µg/L** Analysis Date: **05/17/18 04:34 PM**
Client ID: Run ID: **VMS8_180517B** SeqNo: **5093032** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	28.82	0.11	0.40	20	0	144	77-178	0			
Ethylbenzene	20.75	0.4	1.3	20	0	104	76-123	0			
m,p-Xylene	41.73	0.98	3.3	40	0	104	75-130	0			
o-Xylene	20.37	0.35	1.2	20	0	102	80-125	0			
Xylenes, Total	62.1	1.3	4.4	60	0	104	80-126	0			
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.66*	0	0	*20*	0	*98.3*	*80-110*	0			
Surr: Dibromofluoromethane	*19.81*	0	0	*20*	0	*99*	*85-115*	0			
Surr: Toluene-d8	*19.09*	0	0	*20*	0	*95.4*	*85-110*	0			

MS Sample ID: **1805785-04A MS** Units: **µg/L** Analysis Date: **05/17/18 11:59 PM**
Client ID: **W-31A** Run ID: **VMS8_180517B** SeqNo: **5093037** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	5332	11	40	2000	2958	119	77-178	0			
Ethylbenzene	2517	40	130	2000	639	93.9	76-123	0			
m,p-Xylene	5447	98	330	4000	1833	90.4	75-130	0			
o-Xylene	2464	35	120	2000	573	94.6	80-125	0			
Xylenes, Total	7911	130	440	6000	2406	91.8	80-126	0			
Surr: 1,2-Dichloroethane-d4	*1895*	0	0	*2000*	0	*94.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1911*	0	0	*2000*	0	*95.6*	*80-110*	0			
Surr: Dibromofluoromethane	*2012*	0	0	*2000*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236141** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-04A MSD** Units: **µg/L** Analysis Date: **05/18/18 12:15 PM**
Client ID: **W-31A** Run ID: **VMS8_180517B** SeqNo: **5093038** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	5520	11	40	2000	2958	128	77-178	5332	3.46	30	
Ethylbenzene	2717	40	130	2000	639	104	76-123	2517	7.64	30	
m,p-Xylene	5883	98	330	4000	1833	101	75-130	5447	7.7	30	
o-Xylene	2645	35	120	2000	573	104	80-125	2464	7.09	30	
Xylenes, Total	8528	130	440	6000	2406	102	80-126	7911	7.51	30	
Surr: 1,2-Dichloroethane-d4	*1830*	0	0	*2000*	0	*91.5*	*75-120*	1895	*3.49*	*30*	
Surr: 4-Bromofluorobenzene	*1957*	0	0	*2000*	0	*97.8*	*80-110*	1911	*2.38*	*30*	
Surr: Dibromofluoromethane	*1993*	0	0	*2000*	0	*99.6*	*85-115*	2012	*0.949*	*30*	
Surr: Toluene-d8	*1946*	0	0	*2000*	0	*97.3*	*85-110*	1899	*2.44*	*30*	

The following samples were analyzed in this batch: 1805785-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236141a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180417-R236141a** Units: **µg/L** Analysis Date: **05/17/18 05:23 PM**
Client ID: Run ID: **VMS8_180517B** SeqNo: **5039977** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	U	0.52	1.0								
Ethylbenzene	U	0.29	1.0								
m,p-Xylene	U	0.53	2.0								
o-Xylene	U	0.19	1.0								
Surr: 1,2-Dichloroethane-d4	*18.77*	0	0	*20*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.26*	0	0	*20*	0	*96.3*	*80-110*	0			
Surr: Dibromofluoromethane	*19.87*	0	0	*20*	0	*99.4*	*85-115*	0			
Surr: Toluene-d8	*19.46*	0	0	*20*	0	*97.3*	*85-110*	0			

LCS Sample ID: **VLCSW1-180517-R236141a** Units: **µg/L** Analysis Date: **05/17/18 04:34 PM**
Client ID: Run ID: **VMS8_180517B** SeqNo: **5039976** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	28.82	0.52	1.0	20	0	144	77-178	0			
Ethylbenzene	20.75	0.29	1.0	20	0	104	76-123	0			
m,p-Xylene	41.73	0.53	2.0	40	0	104	75-130	0			
o-Xylene	20.37	0.19	1.0	20	0	102	76-127	0			
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.66*	0	0	*20*	0	*98.3*	*80-110*	0			
Surr: Dibromofluoromethane	*19.81*	0	0	*20*	0	*99*	*85-115*	0			
Surr: Toluene-d8	*19.09*	0	0	*20*	0	*95.4*	*85-110*	0			

MS Sample ID: **1805785-04A MS** Units: **µg/L** Analysis Date: **05/17/18 11:59 PM**
Client ID: **W-31A** Run ID: **VMS8_180517B** SeqNo: **5040067** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	5332	52	100	2000	2958	119	77-178	0			
Ethylbenzene	2517	29	100	2000	639	93.9	76-123	0			
m,p-Xylene	5447	53	200	4000	1833	90.4	75-130	0			
o-Xylene	2464	19	100	2000	573	94.6	76-127	0			
Surr: 1,2-Dichloroethane-d4	*1895*	0	0	*2000*	0	*94.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1911*	0	0	*2000*	0	*95.6*	*80-110*	0			
Surr: Dibromofluoromethane	*2012*	0	0	*2000*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236141a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-04A MSD** Units: **µg/L** Analysis Date: **05/18/18 12:15 PM**
Client ID: **W-31A** Run ID: **VMS8_180517B** SeqNo: **5040068** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4-Methyl-2-pentanone	5520	52	100	2000	2958	128	77-178	5332	3.46	30	
Ethylbenzene	2717	29	100	2000	639	104	76-123	2517	7.64	30	
m,p-Xylene	5883	53	200	4000	1833	101	75-130	5447	7.7	30	
o-Xylene	2645	19	100	2000	573	104	76-127	2464	7.09	30	
Surr: 1,2-Dichloroethane-d4	*1830*	0	0	*2000*	0	*91.5*	*75-120*	1895	*3.49*	*30*	
Surr: 4-Bromofluorobenzene	*1957*	0	0	*2000*	0	*97.8*	*80-110*	1911	*2.38*	*30*	
Surr: Dibromofluoromethane	*1993*	0	0	*2000*	0	*99.6*	*85-115*	2012	*0.949*	*30*	
Surr: Toluene-d8	*1946*	0	0	*2000*	0	*97.3*	*85-110*	1899	*2.44*	*30*	

The following samples were analyzed in this batch: 1805785-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180417-R236164** Units: **µg/L** Analysis Date: **05/18/18 02:22 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5092988** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*18.78*	0	0	*20*	0	*93.9*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.74*	0	0	*20*	0	*98.7*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236164** Units: **µg/L** Analysis Date: **05/18/18 01:34 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5092986** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.11	0.22	0.74	20	0	101	73-114	0			
1,1,1-Trichloroethane	19.99	0.36	1.2	20	0	100	75-130	0			
1,1,2,2-Tetrachloroethane	21.61	0.19	0.62	20	0	108	75-130	0			
1,1,2-Trichloroethane	18.31	0.4	1.3	20	0	91.6	75-125	0			
1,1-Dichloroethane	18.39	0.31	1.0	20	0	92	75-133	0			
1,1-Dichloroethene	18.85	0.28	0.92	20	0	94.2	70-145	0			
1,1-Dichloropropene	18.1	0.35	1.2	20	0	90.5	75-135	0			
1,2,3-Trichlorobenzene	22.22	0.17	0.55	20	0	111	70-140	0			
1,2,3-Trichloropropane	19.09	0.11	0.40	20	0	95.4	75-125	0			
1,2,4-Trichlorobenzene	21.9	0.21	0.71	20	0	110	70-135	0			
1,2,4-Trimethylbenzene	20.04	0.37	1.2	20	0	100	75-130	0			
1,2-Dibromo-3-chloropropane	19.82	0.97	3.2	20	0	99.1	60-130	0			
1,2-Dibromoethane	20.34	0.98	3.3	20	0	102	90-195	0			
1,2-Dichlorobenzene	21.66	0.22	0.73	20	0	108	70-130	0			
1,2-Dichloroethane	18.34	0.17	0.55	20	0	91.7	78-125	0			
1,2-Dichloropropane	18.92	0.25	0.83	20	0	94.6	75-125	0			
1,3,5-Trimethylbenzene	20.13	0.29	0.95	20	0	101	75-130	0			
1,3-Dichlorobenzene	21.36	0.29	0.96	20	0	107	75-130	0			
1,3-Dichloropropane	18.91	0.18	0.61	20	0	94.6	75-125	0			
1,4-Dichlorobenzene	21.81	0.21	0.71	20	0	109	75-130	0			
2,2-Dichloropropane	16.82	0.44	1.5	20	0	84.1	43-150	0			
2-Butanone	17.36	0.58	2.0	20	0	86.8	55-150	0			
2-Chlorotoluene	21.02	0.32	1.1	20	0	105	84-133	0			
4-Chlorotoluene	20.39	0.28	0.95	20	0	102	80-125	0			
4-Methyl-2-pentanone	28.71	0.11	0.40	20	0	144	77-178	0			
Acetone	16.84	0.92	3.1	20	0	84.2	60-160	0			
Benzene	19.61	0.3	1.0	20	0	98	85-125	0			
Bromobenzene	19.82	0.24	0.80	20	0	99.1	80-125	0			
Bromochloromethane	17.58	0.2	0.66	20	0	87.9	72-141	0			
Bromodichloromethane	19.27	0.23	0.78	20	0	96.4	75-125	0			
Bromoform	20.37	0.77	2.6	20	0	102	60-125	0			
Bromomethane	22.31	0.38	1.3	20	0	112	30-185	0			
Carbon tetrachloride	19.17	0.31	1.0	20	0	95.8	65-140	0			
Chlorobenzene	19.79	0.27	0.90	20	0	99	80-120	0			
Chloroethane	17.93	0.29	0.97	20	0	89.6	50-140	0			
Chloroform	18.14	0.26	0.86	20	0	90.7	80-130	0			
Chloromethane	15.6	0.17	0.57	20	0	78	46-148	0			
cis-1,2-Dichloroethene	19.31	0.25	0.85	20	0	96.6	75-134	0			
cis-1,3-Dichloropropene	19.29	0.39	1.3	20	0	96.4	70-130	0			
Dibromochloromethane	19.21	0.38	1.2	20	0	96	60-115	0			
Dibromomethane	18.88	0.25	0.83	20	0	94.4	85-125	0			
Dichlorodifluoromethane	13.68	0.13	0.44	20	0	68.4	20-120	0			
Ethylbenzene	20.47	0.4	1.3	20	0	102	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	23.24	0.24	0.80	20	0	116	70-155	0
Isopropylbenzene	19.75	0.31	1.0	20	0	98.8	80-127	0
m,p-Xylene	40.66	0.98	3.3	40	0	102	75-130	0
Methyl tert-butyl ether	21.06	0.12	0.40	20	0	105	80-130	0
Methylene chloride	17.27	0.56	1.8	20	0	86.4	75-140	0
Naphthalene	21.26	0.18	0.59	20	0	106	55-160	0
n-Butylbenzene	20.84	0.22	0.73	20	0	104	75-145	0
n-Propylbenzene	20.25	0.24	0.81	20	0	101	83-135	0
o-Xylene	19.63	0.35	1.2	20	0	98.2	80-125	0
p-Isopropyltoluene	20.83	0.14	0.48	20	0	104	61-164	0
sec-Butylbenzene	20.65	0.29	0.98	20	0	103	80-134	0
Styrene	20.45	0.24	0.79	20	0	102	83-137	0
tert-Butylbenzene	18.8	0.34	1.2	20	0	94	70-130	0
Tetrachloroethene	22.05	0.27	0.91	20	0	110	68-166	0
Toluene	20.42	0.37	1.2	20	0	102	76-125	0
trans-1,2-Dichloroethene	19.05	0.28	0.93	20	0	95.2	80-140	0
trans-1,3-Dichloropropene	18	0.82	2.7	20	0	90	56-132	0
Trichloroethene	19.75	0.3	0.99	20	0	98.8	84-130	0
Trichlorofluoromethane	17.47	0.2	0.66	20	0	87.4	60-140	0
Vinyl chloride	16.52	0.2	0.68	20	0	82.6	50-136	0
Xylenes, Total	60.29	1.3	4.4	60	0	100	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.92*	0	0	*20*	0	*99.6*	*80-110*	0
Surr: Dibromofluoromethane	*20.3*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.85*	0	0	*20*	0	*99.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/18/18 08:14 AM**
Client ID: **RW-12** Run ID: **VMS8_180517C** SeqNo: **5093012** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19220	220	740	20000	0	96.1	73-114	0			
1,1,1-Trichloroethane	22710	360	1,200	20000	2650	100	75-130	0			
1,1,2,2-Tetrachloroethane	21410	190	620	20000	0	107	75-130	0			
1,1,2-Trichloroethane	18260	400	1,300	20000	0	91.3	75-125	0			
1,1-Dichloroethane	20160	310	1,000	20000	1640	92.6	75-133	0			
1,1-Dichloroethene	21570	280	920	20000	0	108	70-145	0			
1,1-Dichloropropene	18050	350	1,200	20000	0	90.2	75-135	0			
1,2,3-Trichlorobenzene	18890	170	550	20000	0	94.4	70-140	0			
1,2,3-Trichloropropane	18160	110	400	20000	0	90.8	75-125	0			
1,2,4-Trichlorobenzene	18110	210	710	20000	0	90.6	70-135	0			
1,2,4-Trimethylbenzene	19000	370	1,200	20000	0	95	75-130	0			
1,2-Dibromo-3-chloropropane	18720	970	3,200	20000	0	93.6	60-130	0			
1,2-Dibromoethane	20450	980	3,300	20000	0	102	90-195	0			
1,2-Dichlorobenzene	19190	220	730	20000	0	96	70-130	0			
1,2-Dichloroethane	18320	170	550	20000	0	91.6	78-125	0			
1,2-Dichloropropane	18300	250	830	20000	0	91.5	75-125	0			
1,3,5-Trimethylbenzene	19770	290	950	20000	0	98.8	75-130	0			
1,3-Dichlorobenzene	19470	290	960	20000	0	97.4	75-130	0			
1,3-Dichloropropane	18260	180	610	20000	0	91.3	75-125	0			
1,4-Dichlorobenzene	19260	210	710	20000	0	96.3	75-130	0			
2,2-Dichloropropane	13150	440	1,500	20000	0	65.8	43-150	0			
2-Butanone	32280	580	2,000	20000	15800	82.4	55-150	0			
2-Chlorotoluene	19790	320	1,100	20000	0	99	84-133	0			
4-Chlorotoluene	19110	280	950	20000	0	95.6	80-125	0			
4-Methyl-2-pentanone	37620	110	400	20000	6900	154	77-178	0			
Acetone	98320	920	3,100	20000	80430	89.4	60-160	0			O
Benzene	19370	300	1,000	20000	0	96.8	85-125	0			
Bromobenzene	19040	240	800	20000	0	95.2	80-125	0			
Bromochloromethane	19360	200	660	20000	0	96.8	72-141	0			
Bromodichloromethane	18790	230	780	20000	0	94	75-125	0			
Bromoform	19780	770	2,600	20000	0	98.9	60-125	0			
Bromomethane	49490	380	1,300	20000	0	247	30-185	0			S
Carbon tetrachloride	19600	310	1,000	20000	0	98	65-140	0			
Chlorobenzene	19010	270	900	20000	0	95	80-120	0			
Chloroethane	21100	290	970	20000	0	106	50-140	0			
Chloroform	18300	260	860	20000	0	91.5	80-130	0			
Chloromethane	15220	170	570	20000	0	76.1	46-148	0			
cis-1,2-Dichloroethene	27070	250	850	20000	8990	90.4	75-134	0			
cis-1,3-Dichloropropene	18270	390	1,300	20000	0	91.4	70-130	0			
Dibromochloromethane	18360	380	1,200	20000	0	91.8	60-115	0			
Dibromomethane	18760	250	830	20000	0	93.8	85-125	0			
Dichlorodifluoromethane	18260	130	440	20000	0	91.3	20-120	0			
Ethylbenzene	23940	400	1,300	20000	4060	99.4	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	18590	240	800	20000	0	93	70-155	0
Isopropylbenzene	18870	310	1,000	20000	0	94.4	80-127	0
m,p-Xylene	51480	980	3,300	40000	11490	100	75-130	0
Methyl tert-butyl ether	21480	120	400	20000	0	107	80-130	0
Methylene chloride	20000	560	1,800	20000	2420	87.9	75-140	0
Naphthalene	18710	180	590	20000	0	93.6	55-160	0
n-Butylbenzene	18210	220	730	20000	0	91	75-145	0
n-Propylbenzene	19540	240	810	20000	0	97.7	83-135	0
o-Xylene	22760	350	1,200	20000	3570	96	80-125	0
p-Isopropyltoluene	18680	140	480	20000	0	93.4	61-164	0
sec-Butylbenzene	19550	290	980	20000	0	97.8	80-134	0
Styrene	20040	240	790	20000	0	100	83-137	0
tert-Butylbenzene	18420	340	1,200	20000	0	92.1	70-130	0
Tetrachloroethene	20420	270	910	20000	0	102	68-166	0
Toluene	83870	370	1,200	20000	62120	109	76-125	0
trans-1,2-Dichloroethene	19230	280	930	20000	0	96.2	80-140	0
trans-1,3-Dichloropropene	17340	820	2,700	20000	0	86.7	56-132	0
Trichloroethene	19110	300	990	20000	0	95.6	84-130	0
Trichlorofluoromethane	21080	200	660	20000	0	105	60-140	0
Vinyl chloride	18420	200	680	20000	850	87.8	50-136	0
Xylenes, Total	74240	1300	4,400	60000	15060	98.6	80-126	0
Surr: 1,2-Dichloroethane-d4	*20570*	0	0	*20000*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20110*	0	0	*20000*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20860*	0	0	*20000*	0	*104*	*85-115*	0
Surr: Toluene-d8	*19890*	0	0	*20000*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/18/18 08:30 AM**
Client ID: **RW-12** Run ID: **VMS8_180517C** SeqNo: **5093013** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19730	220	740	20000	0	98.6	73-114	19220	2.62	30	
1,1,1-Trichloroethane	23880	360	1,200	20000	2650	106	75-130	22710	5.02	30	
1,1,2,2-Tetrachloroethane	21790	190	620	20000	0	109	75-130	21410	1.76	30	
1,1,2-Trichloroethane	18530	400	1,300	20000	0	92.6	75-125	18260	1.47	30	
1,1-Dichloroethane	20630	310	1,000	20000	1640	95	75-133	20160	2.3	30	
1,1-Dichloroethene	23210	280	920	20000	0	116	70-145	21570	7.32	30	
1,1-Dichloropropene	18960	350	1,200	20000	0	94.8	75-135	18050	4.92	30	
1,2,3-Trichlorobenzene	20000	170	550	20000	0	100	70-140	18890	5.71	30	
1,2,3-Trichloropropane	18830	110	400	20000	0	94.2	75-125	18160	3.62	30	
1,2,4-Trichlorobenzene	19690	210	710	20000	0	98.4	70-135	18110	8.36	30	
1,2,4-Trimethylbenzene	19240	370	1,200	20000	0	96.2	75-130	19000	1.26	30	
1,2-Dibromo-3-chloropropane	19910	970	3,200	20000	0	99.6	60-130	18720	6.16	30	
1,2-Dibromoethane	20490	980	3,300	20000	0	102	90-195	20450	0.195	30	
1,2-Dichlorobenzene	20940	220	730	20000	0	105	70-130	19190	8.72	30	
1,2-Dichloroethane	18980	170	550	20000	0	94.9	78-125	18320	3.54	30	
1,2-Dichloropropane	19500	250	830	20000	0	97.5	75-125	18300	6.35	30	
1,3,5-Trimethylbenzene	20020	290	950	20000	0	100	75-130	19770	1.26	30	
1,3-Dichlorobenzene	20800	290	960	20000	0	104	75-130	19470	6.61	30	
1,3-Dichloropropane	19550	180	610	20000	0	97.8	75-125	18260	6.82	30	
1,4-Dichlorobenzene	21020	210	710	20000	0	105	75-130	19260	8.74	30	
2,2-Dichloropropane	13560	440	1,500	20000	0	67.8	43-150	13150	3.07	30	
2-Butanone	32800	580	2,000	20000	15800	85	55-150	32280	1.6	30	
2-Chlorotoluene	20810	320	1,100	20000	0	104	84-133	19790	5.02	30	
4-Chlorotoluene	20090	280	950	20000	0	100	80-125	19110	5	30	
4-Methyl-2-pentanone	36290	110	400	20000	6900	147	77-178	37620	3.6	30	
Acetone	96360	920	3,100	20000	80430	79.6	60-160	98320	2.01	30	O
Benzene	20200	300	1,000	20000	0	101	85-125	19370	4.2	30	
Bromobenzene	19450	240	800	20000	0	97.2	80-125	19040	2.13	30	
Bromochloromethane	19850	200	660	20000	0	99.2	72-141	19360	2.5	30	
Bromodichloromethane	19650	230	780	20000	0	98.2	75-125	18790	4.47	30	
Bromoform	20110	770	2,600	20000	0	101	60-125	19780	1.65	30	
Bromomethane	49680	380	1,300	20000	0	248	30-185	49490	0.383	30	S
Carbon tetrachloride	21300	310	1,000	20000	0	106	65-140	19600	8.31	30	
Chlorobenzene	20230	270	900	20000	0	101	80-120	19010	6.22	30	
Chloroethane	20620	290	970	20000	0	103	50-140	21100	2.3	30	
Chloroform	18960	260	860	20000	0	94.8	80-130	18300	3.54	30	
Chloromethane	15530	170	570	20000	0	77.6	46-148	15220	2.02	30	
cis-1,2-Dichloroethene	28550	250	850	20000	8990	97.8	75-134	27070	5.32	30	
cis-1,3-Dichloropropene	18280	390	1,300	20000	0	91.4	70-130	18270	0.0547	30	
Dibromochloromethane	19320	380	1,200	20000	0	96.6	60-115	18360	5.1	30	
Dibromomethane	19380	250	830	20000	0	96.9	85-125	18760	3.25	30	
Dichlorodifluoromethane	19500	130	440	20000	0	97.5	20-120	18260	6.57	30	
Ethylbenzene	24940	400	1,300	20000	4060	104	76-123	23940	4.09	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	21180	240	800	20000	0	106	70-155	18590	13	30
Isopropylbenzene	20160	310	1,000	20000	0	101	80-127	18870	6.61	30
m,p-Xylene	54310	980	3,300	40000	11490	107	75-130	51480	5.35	30
Methyl tert-butyl ether	21050	120	400	20000	0	105	80-130	21480	2.02	30
Methylene chloride	20080	560	1,800	20000	2420	88.3	75-140	20000	0.399	30
Naphthalene	19530	180	590	20000	0	97.6	55-160	18710	4.29	30
n-Butylbenzene	19960	220	730	20000	0	99.8	75-145	18210	9.17	30
n-Propylbenzene	20710	240	810	20000	0	104	83-135	19540	5.81	30
o-Xylene	23880	350	1,200	20000	3570	102	80-125	22760	4.8	30
p-Isopropyltoluene	20350	140	480	20000	0	102	61-164	18680	8.56	30
sec-Butylbenzene	20320	290	980	20000	0	102	80-134	19550	3.86	30
Styrene	20650	240	790	20000	0	103	83-137	20040	3	30
tert-Butylbenzene	19520	340	1,200	20000	0	97.6	70-130	18420	5.8	30
Tetrachloroethene	21760	270	910	20000	0	109	68-166	20420	6.35	30
Toluene	85970	370	1,200	20000	62120	119	76-125	83870	2.47	30
trans-1,2-Dichloroethene	19880	280	930	20000	0	99.4	80-140	19230	3.32	30
trans-1,3-Dichloropropene	17480	820	2,700	20000	0	87.4	56-132	17340	0.804	30
Trichloroethene	20370	300	990	20000	0	102	84-130	19110	6.38	30
Trichlorofluoromethane	22620	200	660	20000	0	113	60-140	21080	7.05	30
Vinyl chloride	19260	200	680	20000	850	92	50-136	18420	4.46	30
Xylenes, Total	78190	1300	4,400	60000	15060	105	80-126	74240	5.18	30
Surr: 1,2-Dichloroethane-d4	*19920*	0	0	*20000*	0	*99.6*	*75-120*	20570	*3.21*	*30*
Surr: 4-Bromofluorobenzene	*19790*	0	0	*20000*	0	*99*	*80-110*	20110	*1.6*	*30*
Surr: Dibromofluoromethane	*20020*	0	0	*20000*	0	*100*	*85-115*	20860	*4.11*	*30*
Surr: Toluene-d8	*19840*	0	0	*20000*	0	*99.2*	*85-110*	19890	*0.252*	*30*

The following samples were analyzed in this batch:

1805785-05A	1805785-06A	1805785-07A
1805785-11A	1805785-12A	1805785-15A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180417-R236164a** Units: **µg/L** Analysis Date: **05/18/18 02:22 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5040669** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*18.78*	0	0	*20*	0	*93.9*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.74*	0	0	*20*	0	*98.7*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236164a** Units: **µg/L** Analysis Date: **05/18/18 01:34 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5040668** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.99	0.33	1.0	20	0	100	75-130	0			
1,1,2,2-Tetrachloroethane	21.61	0.17	1.0	20	0	108	75-130	0			
1,1,2-Trichloroethane	18.31	0.22	1.0	20	0	91.6	75-125	0			
1,1-Dichloroethane	18.39	0.48	1.0	20	0	92	68-142	0			
1,1-Dichloroethene	18.85	0.36	1.0	20	0	94.2	70-145	0			
1,2,3-Trichlorobenzene	22.22	0.29	1.0	20	0	111	70-140	0			
1,2,4-Trichlorobenzene	21.9	0.25	1.0	20	0	110	70-135	0			
1,2-Dibromo-3-chloropropane	19.82	0.43	1.0	20	0	99.1	60-130	0			
1,2-Dibromoethane	20.34	0.17	1.0	20	0	102	67-155	0			
1,2-Dichlorobenzene	21.66	0.12	1.0	20	0	108	70-130	0			
1,2-Dichloroethane	18.34	0.11	1.0	20	0	91.7	78-125	0			
1,2-Dichloropropane	18.92	0.34	1.0	20	0	94.6	75-125	0			
1,3-Dichlorobenzene	21.36	0.13	1.0	20	0	107	75-130	0			
1,4-Dichlorobenzene	21.81	0.13	1.0	20	0	109	75-130	0			
2-Butanone	17.36	0.47	5.0	20	0	86.8	55-150	0			
2-Hexanone	18.49	0.5	5.0	20	0	92.4	60-135	0			
4-Methyl-2-pentanone	28.71	0.52	1.0	20	0	144	77-178	0			
Acetone	16.84	0.47	10	20	0	84.2	60-160	0			
Benzene	19.61	0.42	1.0	20	0	98	85-125	0			
Bromochloromethane	17.58	0.15	1.0	20	0	87.9	72-141	0			
Bromodichloromethane	19.27	0.22	1.0	20	0	96.4	75-125	0			
Bromoform	20.37	0.56	1.0	20	0	102	60-125	0			
Bromomethane	22.31	0.29	1.0	20	0	112	30-185	0			
Carbon disulfide	19.42	0.39	1.0	20	0	97.1	60-165	0			
Carbon tetrachloride	19.17	0.32	1.0	20	0	95.8	65-140	0			
Chlorobenzene	19.79	0.21	1.0	20	0	99	80-120	0			
Chloroethane	17.93	0.68	1.0	20	0	89.6	50-140	0			
Chloroform	18.14	0.46	1.0	20	0	90.7	80-130	0			
Chloromethane	15.6	0.68	1.0	20	0	78	46-148	0			
cis-1,2-Dichloroethene	19.31	0.38	1.0	20	0	96.6	75-134	0			
cis-1,3-Dichloropropene	19.29	0.13	1.0	20	0	96.4	70-130	0			
Dibromochloromethane	19.21	0.2	1.0	20	0	96	60-115	0			
Dichlorodifluoromethane	13.68	0.3	1.0	20	0	68.4	20-120	0			
Ethylbenzene	20.47	0.29	1.0	20	0	102	76-123	0			
Isopropylbenzene	19.75	0.17	1.0	20	0	98.8	80-127	0			
m,p-Xylene	40.66	0.53	2.0	40	0	102	75-130	0			
Methyl tert-butyl ether	21.06	0.21	1.0	20	0	105	68-129	0			
Methylene chloride	17.27	0.16	5.0	20	0	86.4	75-140	0			
o-Xylene	19.63	0.19	1.0	20	0	98.2	76-127	0			
Styrene	20.45	0.19	1.0	20	0	102	83-137	0			
Tetrachloroethene	22.05	0.28	1.0	20	0	110	68-166	0			
Toluene	20.42	0.32	1.0	20	0	102	76-125	0			
trans-1,2-Dichloroethene	19.05	0.48	1.0	20	0	95.2	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164a**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,3-Dichloropropene	18	0.15	1.0	20	0	90	56-132	0
Trichloroethene	19.75	0.33	1.0	20	0	98.8	84-130	0
Trichlorofluoromethane	17.47	0.24	1.0	20	0	87.4	60-140	0
Vinyl chloride	16.52	0.53	1.0	20	0	82.6	50-136	0
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.92*	0	0	*20*	0	*99.6*	*80-110*	0
Surr: Dibromofluoromethane	*20.3*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.85*	0	0	*20*	0	*99.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/18/18 08:14 AM**
Client ID: **RW-12** Run ID: **VMS8_180517C** SeqNo: **5040690** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22710	330	1,000	20000	2650	100	75-130	0			
1,1,2,2-Tetrachloroethane	21410	170	1,000	20000	0	107	75-130	0			
1,1,2-Trichloroethane	18260	220	1,000	20000	0	91.3	75-125	0			
1,1-Dichloroethane	20160	480	1,000	20000	1640	92.6	68-142	0			
1,1-Dichloroethene	21570	360	1,000	20000	0	108	70-145	0			
1,2,3-Trichlorobenzene	18890	290	1,000	20000	0	94.4	70-140	0			
1,2,4-Trichlorobenzene	18110	250	1,000	20000	0	90.6	70-135	0			
1,2-Dibromo-3-chloropropane	18720	430	1,000	20000	0	93.6	60-130	0			
1,2-Dibromoethane	20450	170	1,000	20000	0	102	67-155	0			
1,2-Dichlorobenzene	19190	120	1,000	20000	0	96	70-130	0			
1,2-Dichloroethane	18320	110	1,000	20000	0	91.6	78-125	0			
1,2-Dichloropropane	18300	340	1,000	20000	0	91.5	75-125	0			
1,3-Dichlorobenzene	19470	130	1,000	20000	0	97.4	75-130	0			
1,4-Dichlorobenzene	19260	130	1,000	20000	0	96.3	75-130	0			
2-Butanone	32280	470	5,000	20000	15800	82.4	55-150	0			
2-Hexanone	19850	500	5,000	20000	0	99.2	60-135	0			
4-Methyl-2-pentanone	37620	520	1,000	20000	6900	154	77-178	0			
Acetone	98320	470	10,000	20000	80430	89.4	60-160	0			O
Benzene	19370	420	1,000	20000	0	96.8	85-125	0			
Bromochloromethane	19360	150	1,000	20000	0	96.8	72-141	0			
Bromodichloromethane	18790	220	1,000	20000	0	94	75-125	0			
Bromoform	19780	560	1,000	20000	0	98.9	60-125	0			
Bromomethane	49490	290	1,000	20000	0	247	30-185	0			S
Carbon disulfide	19570	390	1,000	20000	0	97.8	60-165	0			
Carbon tetrachloride	19600	320	1,000	20000	0	98	65-140	0			
Chlorobenzene	19010	210	1,000	20000	0	95	80-120	0			
Chloroethane	21100	680	1,000	20000	0	106	50-140	0			
Chloroform	18300	460	1,000	20000	0	91.5	80-130	0			
Chloromethane	15220	680	1,000	20000	0	76.1	46-148	0			
cis-1,2-Dichloroethene	27070	380	1,000	20000	8990	90.4	75-134	0			
cis-1,3-Dichloropropene	18270	130	1,000	20000	0	91.4	70-130	0			
Dibromochloromethane	18360	200	1,000	20000	0	91.8	60-115	0			
Dichlorodifluoromethane	18260	300	1,000	20000	0	91.3	20-120	0			
Ethylbenzene	23940	290	1,000	20000	4060	99.4	76-123	0			
Isopropylbenzene	18870	170	1,000	20000	0	94.4	80-127	0			
m,p-Xylene	51480	530	2,000	40000	11490	100	75-130	0			
Methyl tert-butyl ether	21480	210	1,000	20000	0	107	68-129	0			
Methylene chloride	20000	160	5,000	20000	2420	87.9	75-140	0			
o-Xylene	22760	190	1,000	20000	3570	96	76-127	0			
Styrene	20040	190	1,000	20000	0	100	83-137	0			
Tetrachloroethene	20420	280	1,000	20000	0	102	68-166	0			
Toluene	83870	320	1,000	20000	62120	109	76-125	0			
trans-1,2-Dichloroethene	19230	480	1,000	20000	0	96.2	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	17340	150	1,000	20000	0	86.7	56-132	0
Trichloroethene	19110	330	1,000	20000	0	95.6	84-130	0
Trichlorofluoromethane	21080	240	1,000	20000	0	105	60-140	0
Vinyl chloride	18420	530	1,000	20000	850	87.8	50-136	0
Surr: 1,2-Dichloroethane-d4	*20570*	0	0	*20000*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20110*	0	0	*20000*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20860*	0	0	*20000*	0	*104*	*85-115*	0
Surr: Toluene-d8	*19890*	0	0	*20000*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/18/18 08:30 AM**
Client ID: **RW-12** Run ID: **VMS8_180517C** SeqNo: **5040691** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23880	330	1,000	20000	2650	106	75-130	22710	5.02	30	
1,1,2,2-Tetrachloroethane	21790	170	1,000	20000	0	109	75-130	21410	1.76	30	
1,1,2-Trichloroethane	18530	220	1,000	20000	0	92.6	75-125	18260	1.47	30	
1,1-Dichloroethane	20630	480	1,000	20000	1640	95	68-142	20160	2.3	30	
1,1-Dichloroethene	23210	360	1,000	20000	0	116	70-145	21570	7.32	30	
1,2,3-Trichlorobenzene	20000	290	1,000	20000	0	100	70-140	18890	5.71	30	
1,2,4-Trichlorobenzene	19690	250	1,000	20000	0	98.4	70-135	18110	8.36	30	
1,2-Dibromo-3-chloropropane	19910	430	1,000	20000	0	99.6	60-130	18720	6.16	30	
1,2-Dibromoethane	20490	170	1,000	20000	0	102	67-155	20450	0.195	30	
1,2-Dichlorobenzene	20940	120	1,000	20000	0	105	70-130	19190	8.72	30	
1,2-Dichloroethane	18980	110	1,000	20000	0	94.9	78-125	18320	3.54	30	
1,2-Dichloropropane	19500	340	1,000	20000	0	97.5	75-125	18300	6.35	30	
1,3-Dichlorobenzene	20800	130	1,000	20000	0	104	75-130	19470	6.61	30	
1,4-Dichlorobenzene	21020	130	1,000	20000	0	105	75-130	19260	8.74	30	
2-Butanone	32800	470	5,000	20000	15800	85	55-150	32280	1.6	30	
2-Hexanone	19100	500	5,000	20000	0	95.5	60-135	19850	3.85	30	
4-Methyl-2-pentanone	36290	520	1,000	20000	6900	147	77-178	37620	3.6	30	
Acetone	96360	470	10,000	20000	80430	79.6	60-160	98320	2.01	30	O
Benzene	20200	420	1,000	20000	0	101	85-125	19370	4.2	30	
Bromochloromethane	19850	150	1,000	20000	0	99.2	72-141	19360	2.5	30	
Bromodichloromethane	19650	220	1,000	20000	0	98.2	75-125	18790	4.47	30	
Bromoform	20110	560	1,000	20000	0	101	60-125	19780	1.65	30	
Bromomethane	49680	290	1,000	20000	0	248	30-185	49490	0.383	30	S
Carbon disulfide	21570	390	1,000	20000	0	108	60-165	19570	9.72	30	
Carbon tetrachloride	21300	320	1,000	20000	0	106	65-140	19600	8.31	30	
Chlorobenzene	20230	210	1,000	20000	0	101	80-120	19010	6.22	30	
Chloroethane	20620	680	1,000	20000	0	103	50-140	21100	2.3	30	
Chloroform	18960	460	1,000	20000	0	94.8	80-130	18300	3.54	30	
Chloromethane	15530	680	1,000	20000	0	77.6	46-148	15220	2.02	30	
cis-1,2-Dichloroethene	28550	380	1,000	20000	8990	97.8	75-134	27070	5.32	30	
cis-1,3-Dichloropropene	18280	130	1,000	20000	0	91.4	70-130	18270	0.0547	30	
Dibromochloromethane	19320	200	1,000	20000	0	96.6	60-115	18360	5.1	30	
Dichlorodifluoromethane	19500	300	1,000	20000	0	97.5	20-120	18260	6.57	30	
Ethylbenzene	24940	290	1,000	20000	4060	104	76-123	23940	4.09	30	
Isopropylbenzene	20160	170	1,000	20000	0	101	80-127	18870	6.61	30	
m,p-Xylene	54310	530	2,000	40000	11490	107	75-130	51480	5.35	30	
Methyl tert-butyl ether	21050	210	1,000	20000	0	105	68-129	21480	2.02	30	
Methylene chloride	20080	160	5,000	20000	2420	88.3	75-140	20000	0.399	30	
o-Xylene	23880	190	1,000	20000	3570	102	76-127	22760	4.8	30	
Styrene	20650	190	1,000	20000	0	103	83-137	20040	3	30	
Tetrachloroethene	21760	280	1,000	20000	0	109	68-166	20420	6.35	30	
Toluene	85970	320	1,000	20000	62120	119	76-125	83870	2.47	30	
trans-1,2-Dichloroethene	19880	480	1,000	20000	0	99.4	80-140	19230	3.32	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a**	Instrument ID **VMS8**				Method: **SW8260C**					
trans-1,3-Dichloropropene	17480	150	1,000	20000	0	87.4	56-132	17340	0.804	30
Trichloroethene	20370	330	1,000	20000	0	102	84-130	19110	6.38	30
Trichlorofluoromethane	22620	240	1,000	20000	0	113	60-140	21080	7.05	30
Vinyl chloride	19260	530	1,000	20000	850	92	50-136	18420	4.46	30
Surr: 1,2-Dichloroethane-d4	*19920*	0	0	*20000*	0	*99.6*	*75-120*	20570	*3.21*	*30*
Surr: 4-Bromofluorobenzene	*19790*	0	0	*20000*	0	*99*	*80-110*	20110	*1.6*	*30*
Surr: Dibromofluoromethane	*20020*	0	0	*20000*	0	*100*	*85-115*	20860	*4.11*	*30*
Surr: Toluene-d8	*19840*	0	0	*20000*	0	*99.2*	*85-110*	19890	*0.252*	*30*

The following samples were analyzed in this batch:

1805785-05A	1805785-06A	1805785-07A
1805785-11A	1805785-12A	1805785-15A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180520-R236222** Units: **µg/L** Analysis Date: **05/20/18 08:06 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094560** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	U	0.37	1.2								
Surr: 1,2-Dichloroethane-d4	*19.79*	0	0	*20*	0	*99*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.11*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.81*	0	0	*20*	0	*99*	*85-110*	0			

LCS Sample ID: **VLCSW1-180520-R236222** Units: **µg/L** Analysis Date: **05/20/18 07:24 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094581** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	18.86	0.37	1.2	20	0	94.3	76-125	0			
Surr: 1,2-Dichloroethane-d4	*19.69*	0	0	*20*	0	*98.4*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.99*	0	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*20.06*	0	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.86*	0	0	*20*	0	*99.3*	*85-110*	0			

MS Sample ID: **1805805-07A MS** Units: **µg/L** Analysis Date: **05/21/18 04:04 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094564** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	3007	18	61	1000	1146	186	76-125	0			S
Surr: 1,2-Dichloroethane-d4	*771*	0	0	*1000*	0	*77.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*990.5*	0	0	*1000*	0	*99*	*80-110*	0			
Surr: Dibromofluoromethane	*913*	0	0	*1000*	0	*91.3*	*85-115*	0			
Surr: Toluene-d8	*977*	0	0	*1000*	0	*97.7*	*85-110*	0			

MSD Sample ID: **1805805-07A MSD** Units: **µg/L** Analysis Date: **05/21/18 04:25 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5094565** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	3366	18	61	1000	1146	222	76-125	3007	11.3	30	S
Surr: 1,2-Dichloroethane-d4	*823.5*	0	0	*1000*	0	*82.4*	*75-120*	771	*6.59*	*30*	
Surr: 4-Bromofluorobenzene	*978*	0	0	*1000*	0	*97.8*	*80-110*	990.5	*1.27*	*30*	
Surr: Dibromofluoromethane	*939*	0	0	*1000*	0	*93.9*	*85-115*	913	*2.81*	*30*	
Surr: Toluene-d8	*979.5*	0	0	*1000*	0	*98*	*85-110*	977	*0.256*	*30*	

The following samples were analyzed in this batch: 1805785-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: Gannett Fleming, Inc.
Work Order: 1805785
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236222a** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180520-R236222a** Units: **µg/L** Analysis Date: **05/20/18 08:06 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043327** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	U	0.32	1.0								
Surr: 1,2-Dichloroethane-d4	*19.79*	0	0	*20*	0	*99*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.37*	0	0	*20*	0	*96.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.11*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.81*	0	0	*20*	0	*99*	*85-110*	0			

LCS Sample ID: **VLCSW1-180520-R236222a** Units: **µg/L** Analysis Date: **05/20/18 07:24 PM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043693** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	18.86	0.32	1.0	20	0	94.3	76-125	0			
Surr: 1,2-Dichloroethane-d4	*19.69*	0	0	*20*	0	*98.4*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.99*	0	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*20.06*	0	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.86*	0	0	*20*	0	*99.3*	*85-110*	0			

MS Sample ID: **1805805-07A MS** Units: **µg/L** Analysis Date: **05/21/18 04:04 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043336** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	3007	16	50	1000	1146	186	76-125	0			S
Surr: 1,2-Dichloroethane-d4	*771*	0	0	*1000*	0	*77.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*990.5*	0	0	*1000*	0	*99*	*80-110*	0			
Surr: Dibromofluoromethane	*913*	0	0	*1000*	0	*91.3*	*85-115*	0			
Surr: Toluene-d8	*977*	0	0	*1000*	0	*97.7*	*85-110*	0			

MSD Sample ID: **1805805-07A MSD** Units: **µg/L** Analysis Date: **05/21/18 04:25 AM**
Client ID: Run ID: **VMS7_180520A** SeqNo: **5043337** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	3366	16	50	1000	1146	222	76-125	3007	11.3	30	S
Surr: 1,2-Dichloroethane-d4	*823.5*	0	0	*1000*	0	*82.4*	*75-120*	771	*6.59*	*30*	
Surr: 4-Bromofluorobenzene	*978*	0	0	*1000*	0	*97.8*	*80-110*	990.5	*1.27*	*30*	
Surr: Dibromofluoromethane	*939*	0	0	*1000*	0	*93.9*	*85-115*	913	*2.81*	*30*	
Surr: Toluene-d8	*979.5*	0	0	*1000*	0	*98*	*85-110*	977	*0.256*	*30*	

The following samples were analyzed in this batch: 1805785-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185391

ALS Project Manager: TBB | ALS Work Order #: 1805785

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	Methane, Ethane, Ethene
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc	C	Dissolved Fe, Mn
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	W-7	5/10/18	7:55	GW	HCl	3	3										
2	W-7A		8:05														
3	W-7A dup																
4	W-31A		8:55														
5	W-31B		8:45			3	3										
6	W-33		7:10		HCl, HNO_3	7	3	3	1								
7	TW-1		10:00		HCl	3	3										
8	MB 2		6:50														HOLD
9	DW		10:50														
10	RW-2		9:35														

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by:	Date: 5/10/18	Time: 12:30	Received by: FedEx	Notes:	
Relinquished by: FedEx	Date: 5/11/18	Time: 0930	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory): KW	Date: 5/11/18	Time: 1350	Checked by (Laboratory): TBB	SR2	4.2°C
				PU11	

QC Package: (Check One Box Below)

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Cincinnati, OH +1 513 733 5336
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Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 2 of 2

COC ID: 47605

ALS Project Manager: [illegible] | ALS Work Order #: 1405785

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	~~Quote 2967~~ Quote 6984	Project Name	~~Elk Crystal Lake~~ WRR	A	VOCs - project specific list (EPA 8260)
Work Order		Project Number	~~34667.000~~ 55929.005	B	~~Bill & Glycol~~
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc.	C	~~PAHs (SIM)~~
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@[illegible]net.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	Rpld
11	RW-5	5/10/18	11:00	GW	HCl	3	3										
12	RW-7	↓	10:10	↓	↓	↓	↓										
13	RW-8		9:30														
14	RW-9		9:32														
15	RW-12		9:55			↓	↓										
16	Trip Blank	↓		↓	↓	2	2										
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other

Results Due Date:

	Date:	Time:		
Relinquished by:	5/10/18	12:30	Received by: FedEx	Notes:
Relinquished by: FedEx	5/11/18	0930	Received by (Laboratory):	
Logged by (Laboratory): KW	5/11/18	1350	Checked by (Laboratory):	

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group, USA

Sample Receipt Checklist

Client Name: **GANNETTFLEMING - WI** Date/Time Received: **11-May-18 09:30**

Work Order: **1805785** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 11-May-18 (Date) Reviewed by: Tom Bramish (eSignature) 11-May-18 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2/4.2 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/11/2018 2:00:46 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Revision: 1

The analytical results and QA/QC data included with this report were reviewed by AWM on 06/23/18.

23-Jun-2018

Anthony Miller
Gannett Fleming, Inc.
8025 Excelsior Dr.
Madison, WI 53717-1900

Re: **WRR (55929.005)**

Work Order: **1805786**

Dear Anthony,

Revision: **2**

ALS Environmental received 31 samples on 11-May-2018 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 166.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Tom Beamish

Tom Beamish
Senior Project Manager

Report of Laboratory Analysis

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: **1805786**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1805786-01	W-1	Water		05/09/18 11:55	05/11/18 09:30	☐
1805786-02	W-1A	Water		05/09/18 12:15	05/11/18 09:30	☐
1805786-03	W-1D	Water		05/09/18 13:55	05/11/18 09:30	☐
1805786-04	W-2	Water		05/09/18 08:45	05/11/18 09:30	☐
1805786-05	W-2 dup	Water		05/09/18 08:45	05/11/18 09:30	☐
1805786-06	W-2A	Water		05/09/18 13:25	05/11/18 09:30	☐
1805786-07	W-2B	Water		05/09/18 13:55	05/11/18 09:30	☐
1805786-08	W-3	Water		05/09/18 10:15	05/11/18 09:30	☐
1805786-09	W-4	Water		05/09/18 11:10	05/11/18 09:30	☐
1805786-10	W-5	Water		05/09/18 14:00	05/11/18 09:30	☐
1805786-11	W-6	Water		05/09/18 16:05	05/11/18 09:30	☐
1805786-12	W-6 dup	Water		05/09/18 16:05	05/11/18 09:30	☐
1805786-13	W-17	Water		05/09/18 09:40	05/11/18 09:30	☐
1805786-14	W-17A	Water		05/09/18 09:25	05/11/18 09:30	☐
1805786-15	W-17A dup	Water		05/09/18 09:30	05/11/18 09:30	☐
1805786-16	W-17B	Water		05/09/18 08:55	05/11/18 09:30	☐
1805786-17	W-22	Water		05/09/18 10:50	05/11/18 09:30	☐
1805786-18	W-26	Water		05/09/18 08:15	05/11/18 09:30	☐
1805786-19	W-29	Water		05/09/18 11:10	05/11/18 09:30	☐
1805786-20	W-30A	Water		05/09/18 12:20	05/11/18 09:30	☐
1805786-21	W-30B	Water		05/09/18 12:05	05/11/18 09:30	☐
1805786-22	W-32	Water		05/09/18 14:35	05/11/18 09:30	☐
1805786-23	W-34	Water		05/09/18 15:00	05/11/18 09:30	☐
1805786-24	MW-106	Water		05/09/18 11:40	05/11/18 09:30	☐
1805786-25	MW-106A	Water		05/09/18 11:25	05/11/18 09:30	☐
1805786-26	MW-113	Water		05/09/18 07:50	05/11/18 09:30	☐
1805786-27	MW-113A	Water		05/09/18 07:00	05/11/18 09:30	☐
1805786-28	MW-113B	Water		05/09/18 07:15	05/11/18 09:30	☐
1805786-29	MW-116	Water		05/09/18 10:30	05/11/18 09:30	☐
1805786-30	Method Blank	Water		05/09/18 09:05	05/11/18 09:30	☐
1805786-31	Trip Blank	Water		05/09/18	05/11/18 09:30	☐

Revision: 2

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
WorkOrder: **1805786**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: 1805786

Case Narrative

Samples for the above noted Work Order were received on 05/11/18. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, sample condition, preservation, and temperature compliance.
In order to ensure compliance with NR 149 criteria, please note the following report format:
(1) The Limit of Detection (LOD) is reported as the MDL (Method Detection Limit)
(2) The Limit of Quantitation (LOQ) is reported as the PQL (Practical Quantitation Limit)
(3) All reported concentrations, including those for the LOD and LOQ, are adjusted for any required dilutions
(4) All reported concentrations, including those for the LOD and LOQ, are adjusted for moisture content when samples are reported on a dry weight basis.

Samples were analyzed according to the analytical methodology previously documented in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Detail as to the associated samples can be found at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, acronyms, and units utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R236070, Method GASES_RSK175_W, Sample 1805786-23B MS: The matrix spike recovery was outside of the control limit. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for Methane.

Batch R236041A, Method VOC_8260_W, Sample VLCSW2-180516: The LCS recovery was above the upper control limit. The sample results for this batch may be biased high for 1,1,2,2-Tetrachloroethane, 4-Methyl-2-pentanone, cis-1,2-Dichloroethene, and MTBE.

Batch R236041A, Method VOC_8260_W, Sample 1805786-23A MS and -23A MSD: The MS and/or MSD recovery was above the upper control limit for multiple compounds. The corresponding results in the parent sample may be biased high.

Batch R236094, Method VOC_8260_W, Sample VLCSW2-180517: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Bromomethane.

Batch R236094, Method VOC_8260_W, Sample 1805786-14A MS and -14A MSD: The MS

and/or MSD recovery was above the upper control limit. The corresponding results in the parent sample may be biased high for 1,1,1-Trichloroethane, 1,1-Dichloroethene, Bromomethane, and Trichloroethene.

Batch R236094, Method VOC_8260_W, Sample 1805786-14A MS and -14A MSD: The MS and/or MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for Toluene.

No other deviations or anomalies were noted.

Metals:
No deviations or anomalies were noted.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1
Collection Date: 05/09/18 11:55 AM

Work Order: 1805786
Lab ID: 1805786-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 03:26
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 03:26
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 03:26
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 03:26
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 03:26
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 03:26
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 03:26
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 03:26
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 03:26
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:26
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 03:26
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 03:26
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 03:26
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 03:26
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 03:26
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 03:26
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 03:26
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 03:26
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 03:26
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:26
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 03:26
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 03:26
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 03:26
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 03:26
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 03:26
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 03:26
Acetone	**1.6**	J	**0.92**	**3.1**	**µg/L**	1	05/18/18 03:26
Benzene	U		0.30	1.0	µg/L	1	05/18/18 03:26
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 03:26
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 03:26
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 03:26
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 03:26
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 03:26
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 03:26
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 03:26
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 03:26
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 03:26
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 03:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1
Collection Date: 05/09/18 11:55 AM

Work Order: 1805786
Lab ID: 1805786-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 03:26
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 03:26
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 03:26
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 03:26
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 03:26
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 03:26
Ethylbenzene	**2.7**		**0.40**	**1.3**	**µg/L**	1	05/18/18 03:26
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 03:26
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 03:26
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 03:26
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 03:26
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 03:26
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 03:26
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 03:26
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 03:26
o-Xylene	**0.44**	J	**0.35**	**1.2**	**µg/L**	1	05/18/18 03:26
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 03:26
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 03:26
Styrene	U		0.24	0.79	µg/L	1	05/18/18 03:26
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 03:26
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 03:26
Toluene	U		0.37	1.2	µg/L	1	05/18/18 03:26
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 03:26
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 03:26
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 03:26
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 03:26
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 03:26
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 03:26
Surr: 1,2-Dichloroethane-d4	*97.2*			*75-120*	*%REC*	1	05/18/18 03:26
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/18/18 03:26
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 03:26
Surr: Toluene-d8	*96.3*			*85-110*	*%REC*	1	05/18/18 03:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1A
Collection Date: 05/09/18 12:15 PM

Work Order: 1805786
Lab ID: 1805786-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 03:54
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 03:54
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 03:54
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 03:54
1,1-Dichloroethane	**6.5**		**0.31**	**1.0**	**µg/L**	1	05/17/18 03:54
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 03:54
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 03:54
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 03:54
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 03:54
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 03:54
1,2,4-Trimethylbenzene	**2.3**		**0.37**	**1.2**	**µg/L**	1	05/17/18 03:54
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 03:54
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 03:54
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 03:54
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 03:54
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 03:54
1,3,5-Trimethylbenzene	**0.50**	J	**0.29**	**0.95**	**µg/L**	1	05/17/18 03:54
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 03:54
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 03:54
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 03:54
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 03:54
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 03:54
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 03:54
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 03:54
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 03:54
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 03:54
Acetone	**7.5**		**0.92**	**3.1**	**µg/L**	1	05/17/18 03:54
Benzene	U		0.30	1.0	µg/L	1	05/17/18 03:54
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 03:54
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 03:54
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 03:54
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 03:54
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 03:54
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 03:54
Chlorobenzene	**1.1**		**0.27**	**0.90**	**µg/L**	1	05/17/18 03:54
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 03:54
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 03:54
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 03:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1A
Collection Date: 05/09/18 12:15 PM

Work Order: 1805786
Lab ID: 1805786-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**17**		**0.25**	**0.85**	**µg/L**	1	05/17/18 03:54
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 03:54
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 03:54
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 03:54
Dichlorodifluoromethane	**19**		**0.13**	**0.44**	**µg/L**	1	05/17/18 03:54
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 03:54
Ethylbenzene	**990**		**40**	**130**	**µg/L**	100	05/18/18 07:42
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 03:54
Isopropylbenzene	**1.9**		**0.31**	**1.0**	**µg/L**	1	05/17/18 03:54
m,p-Xylene	**1,800**		**98**	**330**	**µg/L**	100	05/18/18 07:42
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 03:54
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 03:54
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 03:54
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 03:54
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 03:54
o-Xylene	**630**		**35**	**120**	**µg/L**	100	05/18/18 07:42
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 03:54
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 03:54
Styrene	U		0.24	0.79	µg/L	1	05/17/18 03:54
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 03:54
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 03:54
Toluene	**38**		**0.37**	**1.2**	**µg/L**	1	05/17/18 03:54
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 03:54
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 03:54
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 03:54
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 03:54
Vinyl chloride	**270**		**20**	**68**	**µg/L**	100	05/18/18 07:42
Xylenes, Total	**2,400**		**130**	**440**	**µg/L**	100	05/18/18 07:42
Surr: 1,2-Dichloroethane-d4	*111*			*75-120*	*%REC*	1	05/17/18 03:54
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	100	05/18/18 07:42
Surr: 4-Bromofluorobenzene	*104*			*80-110*	*%REC*	1	05/17/18 03:54
Surr: 4-Bromofluorobenzene	*97.8*			*80-110*	*%REC*	100	05/18/18 07:42
Surr: Dibromofluoromethane	*113*			*85-115*	*%REC*	1	05/17/18 03:54
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	100	05/18/18 07:42
Surr: Toluene-d8	*94.4*			*85-110*	*%REC*	1	05/17/18 03:54
Surr: Toluene-d8	*99.6*			*85-110*	*%REC*	100	05/18/18 07:42

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1D
Collection Date: 05/09/18 01:55 PM

Work Order: 1805786
Lab ID: 1805786-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/19/18 12:35
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/19/18 12:35
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/19/18 12:35
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/19/18 12:35
1,1-Dichloroethane	**9.8**		**0.31**	**1.0**	**µg/L**	1	05/19/18 12:35
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/19/18 12:35
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/19/18 12:35
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/19/18 12:35
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/19/18 12:35
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 12:35
1,2,4-Trimethylbenzene	**5.0**		**0.37**	**1.2**	**µg/L**	1	05/19/18 12:35
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/19/18 12:35
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/19/18 12:35
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/19/18 12:35
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/19/18 12:35
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/19/18 12:35
1,3,5-Trimethylbenzene	**1.0**		**0.29**	**0.95**	**µg/L**	1	05/19/18 12:35
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/19/18 12:35
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/19/18 12:35
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 12:35
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/19/18 12:35
2-Butanone	U		0.58	2.0	µg/L	1	05/19/18 12:35
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/19/18 12:35
2-Propanol	**N/A**		**0**		**µg/L**	1	05/19/18 12:35
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/19/18 12:35
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/19/18 12:35
Acetone	**2.9**	J	**0.92**	**3.1**	**µg/L**	1	05/19/18 12:35
Benzene	**0.43**	J	**0.30**	**1.0**	**µg/L**	1	05/19/18 12:35
Bromobenzene	U		0.24	0.80	µg/L	1	05/19/18 12:35
Bromochloromethane	U		0.20	0.66	µg/L	1	05/19/18 12:35
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/19/18 12:35
Bromoform	U		0.77	2.6	µg/L	1	05/19/18 12:35
Bromomethane	U		0.38	1.3	µg/L	1	05/19/18 12:35
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/19/18 12:35
Chlorobenzene	**0.34**	J	**0.27**	**0.90**	**µg/L**	1	05/19/18 12:35
Chloroethane	U		0.29	0.97	µg/L	1	05/19/18 12:35
Chloroform	U		0.26	0.86	µg/L	1	05/19/18 12:35
Chloromethane	U		0.17	0.57	µg/L	1	05/19/18 12:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-1D
Collection Date: 05/09/18 01:55 PM

Work Order: 1805786
Lab ID: 1805786-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**4.8**		**0.25**	**0.85**	**µg/L**	1	05/19/18 12:35
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/19/18 12:35
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/19/18 12:35
Dibromomethane	U		0.25	0.83	µg/L	1	05/19/18 12:35
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/19/18 12:35
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/19/18 12:35
Ethylbenzene	**79**		**0.40**	**1.3**	**µg/L**	1	05/19/18 12:35
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/19/18 12:35
Isopropylbenzene	**1.1**		**0.31**	**1.0**	**µg/L**	1	05/19/18 12:35
m,p-Xylene	**140**		**0.98**	**3.3**	**µg/L**	1	05/19/18 12:35
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/19/18 12:35
Methylene chloride	U		0.56	1.8	µg/L	1	05/19/18 12:35
Naphthalene	**0.22**	J	**0.18**	**0.59**	**µg/L**	1	05/19/18 12:35
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/19/18 12:35
n-Propylbenzene	**0.49**	J	**0.24**	**0.81**	**µg/L**	1	05/19/18 12:35
o-Xylene	**32**		**0.35**	**1.2**	**µg/L**	1	05/19/18 12:35
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/19/18 12:35
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/19/18 12:35
Styrene	U		0.24	0.79	µg/L	1	05/19/18 12:35
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/19/18 12:35
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/19/18 12:35
Toluene	**7.4**		**0.37**	**1.2**	**µg/L**	1	05/19/18 12:35
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/19/18 12:35
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/19/18 12:35
Trichloroethene	U		0.30	0.99	µg/L	1	05/19/18 12:35
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/19/18 12:35
Vinyl chloride	**8.5**		**0.20**	**0.68**	**µg/L**	1	05/19/18 12:35
Xylenes, Total	**180**		**1.3**	**4.4**	**µg/L**	1	05/19/18 12:35
Surr: 1,2-Dichloroethane-d4	*97.1*			*75-120*	*%REC*	1	05/19/18 12:35
Surr: 4-Bromofluorobenzene	*94.0*			*80-110*	*%REC*	1	05/19/18 12:35
Surr: Dibromofluoromethane	*99.9*			*85-115*	*%REC*	1	05/19/18 12:35
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	1	05/19/18 12:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2
Collection Date: 05/09/18 08:45 AM

Work Order: 1805786
Lab ID: 1805786-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 04:43
1,1,1-Trichloroethane	**32**		**0.36**	**1.2**	**µg/L**	1	05/17/18 04:43
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 04:43
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 04:43
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 04:43
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 04:43
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 04:43
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 04:43
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 04:43
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 04:43
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 04:43
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 04:43
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 04:43
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 04:43
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 04:43
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 04:43
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 04:43
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 04:43
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 04:43
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 04:43
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 04:43
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 04:43
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 04:43
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 04:43
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 04:43
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 04:43
Acetone	**2.5**	J	**0.92**	**3.1**	**µg/L**	1	05/17/18 04:43
Benzene	U		0.30	1.0	µg/L	1	05/17/18 04:43
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 04:43
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 04:43
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 04:43
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 04:43
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 04:43
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 04:43
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 04:43
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 04:43
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 04:43
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 04:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2
Collection Date: 05/09/18 08:45 AM

Work Order: 1805786
Lab ID: 1805786-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 04:43
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 04:43
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 04:43
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 04:43
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 04:43
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 04:43
Ethylbenzene	**0.62**	J	**0.40**	**1.3**	**µg/L**	1	05/17/18 04:43
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 04:43
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 04:43
m,p-Xylene	**1.3**	J	**0.98**	**3.3**	**µg/L**	1	05/17/18 04:43
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 04:43
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 04:43
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 04:43
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 04:43
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 04:43
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 04:43
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 04:43
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 04:43
Styrene	U		0.24	0.79	µg/L	1	05/17/18 04:43
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 04:43
Tetrachloroethene	**41**		**0.27**	**0.91**	**µg/L**	1	05/17/18 04:43
Toluene	**0.73**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 04:43
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 04:43
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 04:43
Trichloroethene	**6.6**		**0.30**	**0.99**	**µg/L**	1	05/17/18 04:43
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 04:43
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 04:43
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 04:43
Surr: 1,2-Dichloroethane-d4	*106*			*75-120*	*%REC*	1	05/17/18 04:43
Surr: 4-Bromofluorobenzene	*90.6*			*80-110*	*%REC*	1	05/17/18 04:43
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1	05/17/18 04:43
Surr: Toluene-d8	*97.3*			*85-110*	*%REC*	1	05/17/18 04:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2 dup
Collection Date: 05/09/18 08:45 AM

Work Order: 1805786
Lab ID: 1805786-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 05:07
1,1,1-Trichloroethane	**33**		**0.36**	**1.2**	**µg/L**	1	05/17/18 05:07
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 05:07
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 05:07
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 05:07
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 05:07
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 05:07
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 05:07
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 05:07
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:07
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 05:07
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 05:07
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 05:07
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 05:07
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 05:07
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 05:07
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 05:07
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 05:07
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 05:07
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:07
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 05:07
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 05:07
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 05:07
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 05:07
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 05:07
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 05:07
Acetone	**1.8**	J	**0.92**	**3.1**	**µg/L**	1	05/17/18 05:07
Benzene	U		0.30	1.0	µg/L	1	05/17/18 05:07
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 05:07
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 05:07
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 05:07
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 05:07
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 05:07
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 05:07
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 05:07
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 05:07
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 05:07
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 05:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2 dup
Collection Date: 05/09/18 08:45 AM

Work Order: 1805786
Lab ID: 1805786-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 05:07
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 05:07
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 05:07
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 05:07
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 05:07
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 05:07
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 05:07
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 05:07
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 05:07
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 05:07
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 05:07
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 05:07
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 05:07
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 05:07
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 05:07
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 05:07
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 05:07
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 05:07
Styrene	U		0.24	0.79	µg/L	1	05/17/18 05:07
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 05:07
Tetrachloroethene	**41**		**0.27**	**0.91**	**µg/L**	1	05/17/18 05:07
Toluene	**0.53**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 05:07
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 05:07
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 05:07
Trichloroethene	**6.8**		**0.30**	**0.99**	**µg/L**	1	05/17/18 05:07
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 05:07
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 05:07
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 05:07
Surr: 1,2-Dichloroethane-d4	*106*			*75-120*	*%REC*	1	05/17/18 05:07
Surr: 4-Bromofluorobenzene	*88.8*			*80-110*	*%REC*	1	05/17/18 05:07
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	05/17/18 05:07
Surr: Toluene-d8	*96.3*			*85-110*	*%REC*	1	05/17/18 05:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2A
Collection Date: 05/09/18 01:25 PM

Work Order: 1805786
Lab ID: 1805786-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 05:32
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 05:32
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 05:32
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 05:32
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 05:32
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 05:32
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 05:32
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 05:32
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 05:32
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:32
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 05:32
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 05:32
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 05:32
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 05:32
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 05:32
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 05:32
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 05:32
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 05:32
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 05:32
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:32
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 05:32
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 05:32
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 05:32
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 05:32
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 05:32
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 05:32
Acetone	U		0.92	3.1	µg/L	1	05/17/18 05:32
Benzene	U		0.30	1.0	µg/L	1	05/17/18 05:32
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 05:32
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 05:32
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 05:32
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 05:32
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 05:32
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 05:32
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 05:32
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 05:32
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 05:32
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 05:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2A
Collection Date: 05/09/18 01:25 PM

Work Order: 1805786
Lab ID: 1805786-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 05:32
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 05:32
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 05:32
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 05:32
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 05:32
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 05:32
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 05:32
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 05:32
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 05:32
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 05:32
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 05:32
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 05:32
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 05:32
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 05:32
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 05:32
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 05:32
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 05:32
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 05:32
Styrene	U		0.24	0.79	µg/L	1	05/17/18 05:32
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 05:32
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 05:32
Toluene	**1.5**		**0.37**	**1.2**	**µg/L**	1	05/17/18 05:32
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 05:32
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 05:32
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 05:32
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 05:32
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 05:32
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 05:32
Surr: 1,2-Dichloroethane-d4	*108*			*75-120*	*%REC*	1	05/17/18 05:32
Surr: 4-Bromofluorobenzene	*89.7*			*80-110*	*%REC*	1	05/17/18 05:32
Surr: Dibromofluoromethane	*107*			*85-115*	*%REC*	1	05/17/18 05:32
Surr: Toluene-d8	*98.0*			*85-110*	*%REC*	1	05/17/18 05:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2B
Collection Date: 05/09/18 01:55 PM

Work Order: 1805786
Lab ID: 1805786-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 05:56
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 05:56
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 05:56
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 05:56
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 05:56
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 05:56
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 05:56
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 05:56
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 05:56
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:56
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 05:56
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 05:56
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 05:56
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 05:56
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 05:56
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 05:56
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 05:56
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 05:56
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 05:56
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 05:56
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 05:56
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 05:56
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 05:56
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 05:56
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 05:56
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 05:56
Acetone	U		0.92	3.1	µg/L	1	05/17/18 05:56
Benzene	U		0.30	1.0	µg/L	1	05/17/18 05:56
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 05:56
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 05:56
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 05:56
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 05:56
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 05:56
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 05:56
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 05:56
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 05:56
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 05:56
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 05:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-2B
Collection Date: 05/09/18 01:55 PM

Work Order: 1805786
Lab ID: 1805786-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 05:56
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 05:56
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 05:56
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 05:56
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 05:56
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 05:56
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 05:56
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 05:56
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 05:56
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 05:56
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 05:56
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 05:56
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 05:56
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 05:56
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 05:56
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 05:56
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 05:56
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 05:56
Styrene	U		0.24	0.79	µg/L	1	05/17/18 05:56
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 05:56
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 05:56
Toluene	**1.9**		**0.37**	**1.2**	**µg/L**	1	05/17/18 05:56
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 05:56
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 05:56
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 05:56
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 05:56
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 05:56
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 05:56
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	1	05/17/18 05:56
Surr: 4-Bromofluorobenzene	*89.7*			*80-110*	*%REC*	1	05/17/18 05:56
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	05/17/18 05:56
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	1	05/17/18 05:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3
Collection Date: 05/09/18 10:15 AM

Work Order: 1805786
Lab ID: 1805786-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 06:20
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 06:20
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 06:20
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 06:20
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 06:20
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 06:20
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 06:20
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 06:20
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 06:20
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 06:20
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 06:20
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 06:20
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 06:20
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 06:20
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 06:20
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 06:20
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 06:20
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 06:20
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 06:20
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 06:20
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 06:20
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 06:20
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 06:20
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 06:20
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 06:20
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 06:20
Acetone	**3.0**	J	**0.92**	**3.1**	**µg/L**	1	05/17/18 06:20
Benzene	U		0.30	1.0	µg/L	1	05/17/18 06:20
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 06:20
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 06:20
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 06:20
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 06:20
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 06:20
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 06:20
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 06:20
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 06:20
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 06:20
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 06:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-3
Collection Date: 05/09/18 10:15 AM

Work Order: 1805786
Lab ID: 1805786-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 06:20
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 06:20
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 06:20
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 06:20
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 06:20
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 06:20
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 06:20
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 06:20
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 06:20
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 06:20
Methyl tert-butyl ether	**14**		**0.12**	**0.40**	**µg/L**	1	05/17/18 06:20
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 06:20
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 06:20
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 06:20
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 06:20
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 06:20
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 06:20
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 06:20
Styrene	U		0.24	0.79	µg/L	1	05/17/18 06:20
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 06:20
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 06:20
Toluene	U		0.37	1.2	µg/L	1	05/17/18 06:20
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 06:20
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 06:20
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 06:20
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 06:20
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 06:20
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 06:20
Surr: 1,2-Dichloroethane-d4	*106*			*75-120*	*%REC*	1	05/17/18 06:20
Surr: 4-Bromofluorobenzene	*88.6*			*80-110*	*%REC*	1	05/17/18 06:20
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	1	05/17/18 06:20
Surr: Toluene-d8	*98.7*			*85-110*	*%REC*	1	05/17/18 06:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-4
Collection Date: 05/09/18 11:10 AM

Work Order: 1805786
Lab ID: 1805786-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 06:45
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 06:45
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 06:45
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 06:45
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 06:45
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 06:45
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 06:45
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 06:45
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 06:45
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 06:45
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 06:45
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 06:45
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 06:45
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 06:45
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 06:45
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 06:45
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 06:45
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 06:45
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 06:45
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 06:45
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 06:45
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 06:45
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 06:45
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 06:45
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 06:45
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 06:45
Acetone	U		0.92	3.1	µg/L	1	05/17/18 06:45
Benzene	U		0.30	1.0	µg/L	1	05/17/18 06:45
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 06:45
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 06:45
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 06:45
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 06:45
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 06:45
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 06:45
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 06:45
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 06:45
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 06:45
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 06:45

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-4
Collection Date: 05/09/18 11:10 AM

Work Order: 1805786
Lab ID: 1805786-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 06:45
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 06:45
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 06:45
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 06:45
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 06:45
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 06:45
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 06:45
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 06:45
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 06:45
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 06:45
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 06:45
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 06:45
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 06:45
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 06:45
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 06:45
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 06:45
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 06:45
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 06:45
Styrene	U		0.24	0.79	µg/L	1	05/17/18 06:45
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 06:45
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 06:45
Toluene	U		0.37	1.2	µg/L	1	05/17/18 06:45
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 06:45
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 06:45
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 06:45
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 06:45
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 06:45
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 06:45
Surr: 1,2-Dichloroethane-d4	*108*			*75-120*	*%REC*	1	05/17/18 06:45
Surr: 4-Bromofluorobenzene	*90.5*			*80-110*	*%REC*	1	05/17/18 06:45
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	1	05/17/18 06:45
Surr: Toluene-d8	*97.4*			*85-110*	*%REC*	1	05/17/18 06:45

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-5
Collection Date: 05/09/18 02:00 PM

Work Order: 1805786
Lab ID: 1805786-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 07:09
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 07:09
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 07:09
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 07:09
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 07:09
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 07:09
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 07:09
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 07:09
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 07:09
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:09
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 07:09
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 07:09
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 07:09
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 07:09
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 07:09
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 07:09
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 07:09
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 07:09
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 07:09
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:09
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 07:09
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 07:09
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 07:09
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 07:09
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 07:09
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 07:09
Acetone	**3.3**		**0.92**	**3.1**	**µg/L**	1	05/17/18 07:09
Benzene	U		0.30	1.0	µg/L	1	05/17/18 07:09
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 07:09
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 07:09
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 07:09
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 07:09
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 07:09
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 07:09
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 07:09
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 07:09
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 07:09
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 07:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-5
Collection Date: 05/09/18 02:00 PM

Work Order: 1805786
Lab ID: 1805786-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 07:09
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 07:09
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 07:09
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 07:09
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 07:09
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 07:09
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 07:09
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 07:09
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 07:09
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 07:09
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 07:09
Methylene chloride	**1.8**	J	**0.56**	**1.8**	**µg/L**	1	05/17/18 07:09
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 07:09
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 07:09
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 07:09
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 07:09
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 07:09
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 07:09
Styrene	U		0.24	0.79	µg/L	1	05/17/18 07:09
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 07:09
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 07:09
Toluene	U		0.37	1.2	µg/L	1	05/17/18 07:09
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 07:09
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 07:09
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 07:09
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 07:09
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 07:09
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 07:09
Surr: 1,2-Dichloroethane-d4	*108*			*75-120*	*%REC*	1	05/17/18 07:09
Surr: 4-Bromofluorobenzene	*90.9*			*80-110*	*%REC*	1	05/17/18 07:09
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	05/17/18 07:09
Surr: Toluene-d8	*97.8*			*85-110*	*%REC*	1	05/17/18 07:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-6
Collection Date: 05/09/18 04:05 PM

Work Order: 1805786
Lab ID: 1805786-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 07:34
1,1,1-Trichloroethane	**16**		**0.36**	**1.2**	**µg/L**	1	05/17/18 07:34
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 07:34
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 07:34
1,1-Dichloroethane	**120**		**1.5**	**5.2**	**µg/L**	5	05/18/18 07:10
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 07:34
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 07:34
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 07:34
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 07:34
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:34
1,2,4-Trimethylbenzene	**0.61**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 07:34
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 07:34
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 07:34
1,2-Dichlorobenzene	**2.5**		**0.22**	**0.73**	**µg/L**	1	05/17/18 07:34
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 07:34
1,2-Dichloropropane	**2.3**		**0.25**	**0.83**	**µg/L**	1	05/17/18 07:34
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 07:34
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 07:34
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 07:34
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:34
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 07:34
2-Butanone	**5.5**		**0.58**	**2.0**	**µg/L**	1	05/17/18 07:34
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 07:34
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 07:34
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 07:34
4-Methyl-2-pentanone	**5.3**		**0.11**	**0.40**	**µg/L**	1	05/17/18 07:34
Acetone	**47**		**0.92**	**3.1**	**µg/L**	1	05/17/18 07:34
Benzene	U		0.30	1.0	µg/L	1	05/17/18 07:34
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 07:34
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 07:34
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 07:34
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 07:34
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 07:34
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 07:34
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 07:34
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 07:34
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 07:34
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 07:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-6
Collection Date: 05/09/18 04:05 PM

Work Order: 1805786
Lab ID: 1805786-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**57**		**0.25**	**0.85**	**µg/L**	1	05/17/18 07:34
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 07:34
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 07:34
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 07:34
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 07:34
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 07:34
Ethylbenzene	**0.71**	J	**0.40**	**1.3**	**µg/L**	1	05/17/18 07:34
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 07:34
Isopropylbenzene	**0.80**	J	**0.31**	**1.0**	**µg/L**	1	05/17/18 07:34
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 07:34
Methyl tert-butyl ether	**1.1**		**0.12**	**0.40**	**µg/L**	1	05/17/18 07:34
Methylene chloride	**9.5**		**0.56**	**1.8**	**µg/L**	1	05/17/18 07:34
Naphthalene	**0.50**	J	**0.18**	**0.59**	**µg/L**	1	05/17/18 07:34
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 07:34
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 07:34
o-Xylene	**1.0**	J	**0.35**	**1.2**	**µg/L**	1	05/17/18 07:34
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 07:34
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 07:34
Styrene	U		0.24	0.79	µg/L	1	05/17/18 07:34
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 07:34
Tetrachloroethene	**7.4**		**0.27**	**0.91**	**µg/L**	1	05/17/18 07:34
Toluene	U		0.37	1.2	µg/L	1	05/17/18 07:34
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 07:34
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 07:34
Trichloroethene	**9.6**		**0.30**	**0.99**	**µg/L**	1	05/17/18 07:34
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 07:34
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 07:34
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 07:34
Surr: 1,2-Dichloroethane-d4	*119*			*75-120*	*%REC*	1	05/17/18 07:34
Surr: 1,2-Dichloroethane-d4	*97.8*			*75-120*	*%REC*	5	05/18/18 07:10
Surr: 4-Bromofluorobenzene	*92.0*			*80-110*	*%REC*	1	05/17/18 07:34
Surr: 4-Bromofluorobenzene	*96.8*			*80-110*	*%REC*	5	05/18/18 07:10
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/17/18 07:34
Surr: Dibromofluoromethane	*99.0*			*85-115*	*%REC*	5	05/18/18 07:10
Surr: Toluene-d8	*104*			*85-110*	*%REC*	1	05/17/18 07:34
Surr: Toluene-d8	*97.1*			*85-110*	*%REC*	5	05/18/18 07:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-6 dup
Collection Date: 05/09/18 04:05 PM

Work Order: 1805786
Lab ID: 1805786-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 07:58
1,1,1-Trichloroethane	**16**		**0.36**	**1.2**	**µg/L**	1	05/17/18 07:58
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 07:58
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 07:58
1,1-Dichloroethane	**110**		**1.5**	**5.2**	**µg/L**	5	05/18/18 07:26
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 07:58
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 07:58
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 07:58
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 07:58
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:58
1,2,4-Trimethylbenzene	**0.65**	J	**0.37**	**1.2**	**µg/L**	1	05/17/18 07:58
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 07:58
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 07:58
1,2-Dichlorobenzene	**2.6**		**0.22**	**0.73**	**µg/L**	1	05/17/18 07:58
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 07:58
1,2-Dichloropropane	**2.5**		**0.25**	**0.83**	**µg/L**	1	05/17/18 07:58
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 07:58
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 07:58
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 07:58
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 07:58
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 07:58
2-Butanone	**7.2**		**0.58**	**2.0**	**µg/L**	1	05/17/18 07:58
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 07:58
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 07:58
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 07:58
4-Methyl-2-pentanone	**6.9**		**0.11**	**0.40**	**µg/L**	1	05/17/18 07:58
Acetone	**52**		**0.92**	**3.1**	**µg/L**	1	05/17/18 07:58
Benzene	U		0.30	1.0	µg/L	1	05/17/18 07:58
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 07:58
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 07:58
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 07:58
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 07:58
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 07:58
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 07:58
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 07:58
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 07:58
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 07:58
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 07:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-6 dup
Collection Date: 05/09/18 04:05 PM

Work Order: 1805786
Lab ID: 1805786-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**57**		**0.25**	**0.85**	**µg/L**	1	05/17/18 07:58
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 07:58
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 07:58
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 07:58
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 07:58
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 07:58
Ethylbenzene	**0.65**	J	**0.40**	**1.3**	**µg/L**	1	05/17/18 07:58
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 07:58
Isopropylbenzene	**0.80**	J	**0.31**	**1.0**	**µg/L**	1	05/17/18 07:58
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 07:58
Methyl tert-butyl ether	**1.2**		**0.12**	**0.40**	**µg/L**	1	05/17/18 07:58
Methylene chloride	**13**		**0.56**	**1.8**	**µg/L**	1	05/17/18 07:58
Naphthalene	**0.48**	J	**0.18**	**0.59**	**µg/L**	1	05/17/18 07:58
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 07:58
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 07:58
o-Xylene	**1.2**	J	**0.35**	**1.2**	**µg/L**	1	05/17/18 07:58
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 07:58
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 07:58
Styrene	U		0.24	0.79	µg/L	1	05/17/18 07:58
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 07:58
Tetrachloroethene	**7.8**		**0.27**	**0.91**	**µg/L**	1	05/17/18 07:58
Toluene	U		0.37	1.2	µg/L	1	05/17/18 07:58
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 07:58
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 07:58
Trichloroethene	**8.0**		**0.30**	**0.99**	**µg/L**	1	05/17/18 07:58
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 07:58
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 07:58
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 07:58
Surr: 1,2-Dichloroethane-d4	*119*			*75-120*	*%REC*	1	05/17/18 07:58
Surr: 1,2-Dichloroethane-d4	*98.7*			*75-120*	*%REC*	5	05/18/18 07:26
Surr: 4-Bromofluorobenzene	*90.8*			*80-110*	*%REC*	1	05/17/18 07:58
Surr: 4-Bromofluorobenzene	*98.0*			*80-110*	*%REC*	5	05/18/18 07:26
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/17/18 07:58
Surr: Dibromofluoromethane	*99.8*			*85-115*	*%REC*	5	05/18/18 07:26
Surr: Toluene-d8	*103*			*85-110*	*%REC*	1	05/17/18 07:58
Surr: Toluene-d8	*99.1*			*85-110*	*%REC*	5	05/18/18 07:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17
Collection Date: 05/09/18 09:40 AM

Work Order: 1805786
Lab ID: 1805786-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 02:14
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 02:14
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 02:14
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 02:14
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 02:14
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 02:14
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 02:14
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 02:14
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 02:14
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:14
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 02:14
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 02:14
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 02:14
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 02:14
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 02:14
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 02:14
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 02:14
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 02:14
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 02:14
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 02:14
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 02:14
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 02:14
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 02:14
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 02:14
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 02:14
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 02:14
Acetone	**1.7**	J	**0.92**	**3.1**	**µg/L**	1	05/17/18 02:14
Benzene	U		0.30	1.0	µg/L	1	05/17/18 02:14
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 02:14
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 02:14
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 02:14
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 02:14
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 02:14
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 02:14
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 02:14
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 02:14
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 02:14
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 02:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17
Collection Date: 05/09/18 09:40 AM

Work Order: 1805786
Lab ID: 1805786-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 02:14
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 02:14
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 02:14
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 02:14
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 02:14
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 02:14
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 02:14
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 02:14
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 02:14
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 02:14
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 02:14
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 02:14
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 02:14
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 02:14
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 02:14
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 02:14
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 02:14
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 02:14
Styrene	U		0.24	0.79	µg/L	1	05/17/18 02:14
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 02:14
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 02:14
Toluene	U		0.37	1.2	µg/L	1	05/17/18 02:14
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 02:14
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 02:14
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 02:14
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 02:14
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 02:14
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 02:14
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	1	05/17/18 02:14
Surr: 4-Bromofluorobenzene	*97.3*			*80-110*	*%REC*	1	05/17/18 02:14
Surr: Dibromofluoromethane	*92.5*			*85-115*	*%REC*	1	05/17/18 02:14
Surr: Toluene-d8	*97.1*			*85-110*	*%REC*	1	05/17/18 02:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17A
Collection Date: 05/09/18 09:25 AM

Work Order: 1805786
Lab ID: 1805786-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		5.6	18	µg/L	25	05/18/18 02:19
1,1,1-Trichloroethane	U		9.0	30	µg/L	25	05/18/18 02:19
1,1,2,2-Tetrachloroethane	U		4.6	16	µg/L	25	05/18/18 02:19
1,1,2-Trichloroethane	U		10	33	µg/L	25	05/18/18 02:19
1,1-Dichloroethane	**70**		**7.7**	**26**	**µg/L**	25	05/18/18 02:19
1,1-Dichloroethene	U		6.9	23	µg/L	25	05/18/18 02:19
1,1-Dichloropropene	U		8.8	30	µg/L	25	05/18/18 02:19
1,2,3-Trichlorobenzene	U		4.2	14	µg/L	25	05/18/18 02:19
1,2,3-Trichloropropane	U		2.8	10	µg/L	25	05/18/18 02:19
1,2,4-Trichlorobenzene	U		5.4	18	µg/L	25	05/18/18 02:19
1,2,4-Trimethylbenzene	U		9.3	31	µg/L	25	05/18/18 02:19
1,2-Dibromo-3-chloropropane	U		24	81	µg/L	25	05/18/18 02:19
1,2-Dibromoethane	U		25	82	µg/L	25	05/18/18 02:19
1,2-Dichlorobenzene	U		5.4	18	µg/L	25	05/18/18 02:19
1,2-Dichloroethane	U		4.2	14	µg/L	25	05/18/18 02:19
1,2-Dichloropropane	U		6.2	21	µg/L	25	05/18/18 02:19
1,3,5-Trimethylbenzene	U		7.2	24	µg/L	25	05/18/18 02:19
1,3-Dichlorobenzene	U		7.2	24	µg/L	25	05/18/18 02:19
1,3-Dichloropropane	U		4.6	15	µg/L	25	05/18/18 02:19
1,4-Dichlorobenzene	U		5.3	18	µg/L	25	05/18/18 02:19
2,2-Dichloropropane	U		11	37	µg/L	25	05/18/18 02:19
2-Butanone	U		15	49	µg/L	25	05/18/18 02:19
2-Chlorotoluene	U		8.1	27	µg/L	25	05/18/18 02:19
2-Propanol	**N/A**		**0**		**µg/L**	25	05/18/18 02:19
4-Chlorotoluene	U		7.1	24	µg/L	25	05/18/18 02:19
4-Methyl-2-pentanone	**40**		**2.8**	**10**	**µg/L**	25	05/18/18 02:19
Acetone	**210**		**23**	**76**	**µg/L**	25	05/18/18 02:19
Benzene	**16**	J	**7.6**	**25**	**µg/L**	25	05/18/18 02:19
Bromobenzene	U		6.0	20	µg/L	25	05/18/18 02:19
Bromochloromethane	U		4.9	16	µg/L	25	05/18/18 02:19
Bromodichloromethane	U		5.8	20	µg/L	25	05/18/18 02:19
Bromoform	U		19	64	µg/L	25	05/18/18 02:19
Bromomethane	U		9.4	32	µg/L	25	05/18/18 02:19
Carbon tetrachloride	U		7.8	26	µg/L	25	05/18/18 02:19
Chlorobenzene	U		6.8	22	µg/L	25	05/18/18 02:19
Chloroethane	**1,600**		**7.3**	**24**	**µg/L**	25	05/18/18 02:19
Chloroform	U		6.4	22	µg/L	25	05/18/18 02:19
Chloromethane	U		4.3	14	µg/L	25	05/18/18 02:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17A
Collection Date: 05/09/18 09:25 AM

Work Order: 1805786
Lab ID: 1805786-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		6.4	21	µg/L	25	05/18/18 02:19
cis-1,3-Dichloropropene	U		9.8	33	µg/L	25	05/18/18 02:19
Dibromochloromethane	U		9.4	31	µg/L	25	05/18/18 02:19
Dibromomethane	U		6.2	21	µg/L	25	05/18/18 02:19
Dichlorodifluoromethane	U		3.3	11	µg/L	25	05/18/18 02:19
Diisopropyl ether	U		3.2	11	µg/L	25	05/18/18 02:19
Ethylbenzene	U		10	34	µg/L	25	05/18/18 02:19
Hexachlorobutadiene	U		6.0	20	µg/L	25	05/18/18 02:19
Isopropylbenzene	U		7.8	26	µg/L	25	05/18/18 02:19
m,p-Xylene	U		24	82	µg/L	25	05/18/18 02:19
Methyl tert-butyl ether	U		2.9	10	µg/L	25	05/18/18 02:19
Methylene chloride	U		14	46	µg/L	25	05/18/18 02:19
Naphthalene	U		4.4	15	µg/L	25	05/18/18 02:19
n-Butylbenzene	U		5.4	18	µg/L	25	05/18/18 02:19
n-Propylbenzene	U		6.1	20	µg/L	25	05/18/18 02:19
o-Xylene	**13**	J	**8.8**	**30**	**µg/L**	25	05/18/18 02:19
p-Isopropyltoluene	U		3.6	12	µg/L	25	05/18/18 02:19
sec-Butylbenzene	U		7.4	24	µg/L	25	05/18/18 02:19
Styrene	U		6.0	20	µg/L	25	05/18/18 02:19
tert-Butylbenzene	U		8.6	29	µg/L	25	05/18/18 02:19
Tetrachloroethene	U		6.8	23	µg/L	25	05/18/18 02:19
Toluene	**810**		**9.2**	**30**	**µg/L**	25	05/18/18 02:19
trans-1,2-Dichloroethene	**52**		**7.0**	**23**	**µg/L**	25	05/18/18 02:19
trans-1,3-Dichloropropene	U		20	68	µg/L	25	05/18/18 02:19
Trichloroethene	U		7.4	25	µg/L	25	05/18/18 02:19
Trichlorofluoromethane	U		5.0	16	µg/L	25	05/18/18 02:19
Vinyl chloride	U		5.1	17	µg/L	25	05/18/18 02:19
Xylenes, Total	U		33	110	µg/L	25	05/18/18 02:19
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	25	05/18/18 02:19
Surr: 4-Bromofluorobenzene	*91.0*			*80-110*	*%REC*	25	05/18/18 02:19
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	25	05/18/18 02:19
Surr: Toluene-d8	*89.7*			*85-110*	*%REC*	25	05/18/18 02:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17A dup
Collection Date: 05/09/18 09:30 AM

Work Order: 1805786
Lab ID: 1805786-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		5.6	18	µg/L	25	05/18/18 02:40
1,1,1-Trichloroethane	U		9.0	30	µg/L	25	05/18/18 02:40
1,1,2,2-Tetrachloroethane	U		4.6	16	µg/L	25	05/18/18 02:40
1,1,2-Trichloroethane	U		10	33	µg/L	25	05/18/18 02:40
1,1-Dichloroethane	**89**		**7.7**	**26**	**µg/L**	25	05/18/18 02:40
1,1-Dichloroethene	U		6.9	23	µg/L	25	05/18/18 02:40
1,1-Dichloropropene	U		8.8	30	µg/L	25	05/18/18 02:40
1,2,3-Trichlorobenzene	U		4.2	14	µg/L	25	05/18/18 02:40
1,2,3-Trichloropropane	U		2.8	10	µg/L	25	05/18/18 02:40
1,2,4-Trichlorobenzene	U		5.4	18	µg/L	25	05/18/18 02:40
1,2,4-Trimethylbenzene	U		9.3	31	µg/L	25	05/18/18 02:40
1,2-Dibromo-3-chloropropane	U		24	81	µg/L	25	05/18/18 02:40
1,2-Dibromoethane	U		25	82	µg/L	25	05/18/18 02:40
1,2-Dichlorobenzene	U		5.4	18	µg/L	25	05/18/18 02:40
1,2-Dichloroethane	U		4.2	14	µg/L	25	05/18/18 02:40
1,2-Dichloropropane	U		6.2	21	µg/L	25	05/18/18 02:40
1,3,5-Trimethylbenzene	U		7.2	24	µg/L	25	05/18/18 02:40
1,3-Dichlorobenzene	U		7.2	24	µg/L	25	05/18/18 02:40
1,3-Dichloropropane	U		4.6	15	µg/L	25	05/18/18 02:40
1,4-Dichlorobenzene	U		5.3	18	µg/L	25	05/18/18 02:40
2,2-Dichloropropane	U		11	37	µg/L	25	05/18/18 02:40
2-Butanone	**82**		**15**	**49**	**µg/L**	25	05/18/18 02:40
2-Chlorotoluene	U		8.1	27	µg/L	25	05/18/18 02:40
2-Propanol	**N/A**		**0**		**µg/L**	25	05/18/18 02:40
4-Chlorotoluene	U		7.1	24	µg/L	25	05/18/18 02:40
4-Methyl-2-pentanone	**64**		**2.8**	**10**	**µg/L**	25	05/18/18 02:40
Acetone	**360**		**23**	**76**	**µg/L**	25	05/18/18 02:40
Benzene	**13**	J	**7.6**	**25**	**µg/L**	25	05/18/18 02:40
Bromobenzene	U		6.0	20	µg/L	25	05/18/18 02:40
Bromochloromethane	U		4.9	16	µg/L	25	05/18/18 02:40
Bromodichloromethane	U		5.8	20	µg/L	25	05/18/18 02:40
Bromoform	U		19	64	µg/L	25	05/18/18 02:40
Bromomethane	U		9.4	32	µg/L	25	05/18/18 02:40
Carbon tetrachloride	U		7.8	26	µg/L	25	05/18/18 02:40
Chlorobenzene	U		6.8	22	µg/L	25	05/18/18 02:40
Chloroethane	**1,200**		**7.3**	**24**	**µg/L**	25	05/18/18 02:40
Chloroform	U		6.4	22	µg/L	25	05/18/18 02:40
Chloromethane	U		4.3	14	µg/L	25	05/18/18 02:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17A dup
Collection Date: 05/09/18 09:30 AM

Work Order: 1805786
Lab ID: 1805786-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		6.4	21	µg/L	25	05/18/18 02:40
cis-1,3-Dichloropropene	U		9.8	33	µg/L	25	05/18/18 02:40
Dibromochloromethane	U		9.4	31	µg/L	25	05/18/18 02:40
Dibromomethane	U		6.2	21	µg/L	25	05/18/18 02:40
Dichlorodifluoromethane	U		3.3	11	µg/L	25	05/18/18 02:40
Diisopropyl ether	U		3.2	11	µg/L	25	05/18/18 02:40
Ethylbenzene	U		10	34	µg/L	25	05/18/18 02:40
Hexachlorobutadiene	U		6.0	20	µg/L	25	05/18/18 02:40
Isopropylbenzene	U		7.8	26	µg/L	25	05/18/18 02:40
m,p-Xylene	U		24	82	µg/L	25	05/18/18 02:40
Methyl tert-butyl ether	U		2.9	10	µg/L	25	05/18/18 02:40
Methylene chloride	U		14	46	µg/L	25	05/18/18 02:40
Naphthalene	U		4.4	15	µg/L	25	05/18/18 02:40
n-Butylbenzene	U		5.4	18	µg/L	25	05/18/18 02:40
n-Propylbenzene	U		6.1	20	µg/L	25	05/18/18 02:40
o-Xylene	U		8.8	30	µg/L	25	05/18/18 02:40
p-Isopropyltoluene	U		3.6	12	µg/L	25	05/18/18 02:40
sec-Butylbenzene	U		7.4	24	µg/L	25	05/18/18 02:40
Styrene	U		6.0	20	µg/L	25	05/18/18 02:40
tert-Butylbenzene	U		8.6	29	µg/L	25	05/18/18 02:40
Tetrachloroethene	U		6.8	23	µg/L	25	05/18/18 02:40
Toluene	**730**		**9.2**	**30**	**µg/L**	25	05/18/18 02:40
trans-1,2-Dichloroethene	**36**		**7.0**	**23**	**µg/L**	25	05/18/18 02:40
trans-1,3-Dichloropropene	U		20	68	µg/L	25	05/18/18 02:40
Trichloroethene	U		7.4	25	µg/L	25	05/18/18 02:40
Trichlorofluoromethane	U		5.0	16	µg/L	25	05/18/18 02:40
Vinyl chloride	U		5.1	17	µg/L	25	05/18/18 02:40
Xylenes, Total	U		33	110	µg/L	25	05/18/18 02:40
Surr: 1,2-Dichloroethane-d4	*105*			*75-120*	*%REC*	25	05/18/18 02:40
Surr: 4-Bromofluorobenzene	*94.7*			*80-110*	*%REC*	25	05/18/18 02:40
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	25	05/18/18 02:40
Surr: Toluene-d8	*93.7*			*85-110*	*%REC*	25	05/18/18 02:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17B
Collection Date: 05/09/18 08:55 AM

Work Order: 1805786
Lab ID: 1805786-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/19/18 12:51
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/19/18 12:51
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/19/18 12:51
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/19/18 12:51
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/19/18 12:51
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/19/18 12:51
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/19/18 12:51
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/19/18 12:51
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/19/18 12:51
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 12:51
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/19/18 12:51
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/19/18 12:51
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/19/18 12:51
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/19/18 12:51
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/19/18 12:51
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/19/18 12:51
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/19/18 12:51
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/19/18 12:51
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/19/18 12:51
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 12:51
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/19/18 12:51
2-Butanone	U		0.58	2.0	µg/L	1	05/19/18 12:51
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/19/18 12:51
2-Propanol	**N/A**		**0**		**µg/L**	1	05/19/18 12:51
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/19/18 12:51
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/19/18 12:51
Acetone	U		0.92	3.1	µg/L	1	05/19/18 12:51
Benzene	U		0.30	1.0	µg/L	1	05/19/18 12:51
Bromobenzene	U		0.24	0.80	µg/L	1	05/19/18 12:51
Bromochloromethane	U		0.20	0.66	µg/L	1	05/19/18 12:51
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/19/18 12:51
Bromoform	U		0.77	2.6	µg/L	1	05/19/18 12:51
Bromomethane	U		0.38	1.3	µg/L	1	05/19/18 12:51
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/19/18 12:51
Chlorobenzene	U		0.27	0.90	µg/L	1	05/19/18 12:51
Chloroethane	U		0.29	0.97	µg/L	1	05/19/18 12:51
Chloroform	U		0.26	0.86	µg/L	1	05/19/18 12:51
Chloromethane	U		0.17	0.57	µg/L	1	05/19/18 12:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-17B
Collection Date: 05/09/18 08:55 AM

Work Order: 1805786
Lab ID: 1805786-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/19/18 12:51
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/19/18 12:51
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/19/18 12:51
Dibromomethane	U		0.25	0.83	µg/L	1	05/19/18 12:51
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/19/18 12:51
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/19/18 12:51
Ethylbenzene	**0.43**	J	**0.40**	**1.3**	**µg/L**	1	05/19/18 12:51
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/19/18 12:51
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/19/18 12:51
m,p-Xylene	**1.1**	J	**0.98**	**3.3**	**µg/L**	1	05/19/18 12:51
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/19/18 12:51
Methylene chloride	U		0.56	1.8	µg/L	1	05/19/18 12:51
Naphthalene	U		0.18	0.59	µg/L	1	05/19/18 12:51
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/19/18 12:51
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/19/18 12:51
o-Xylene	**0.37**	J	**0.35**	**1.2**	**µg/L**	1	05/19/18 12:51
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/19/18 12:51
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/19/18 12:51
Styrene	U		0.24	0.79	µg/L	1	05/19/18 12:51
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/19/18 12:51
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/19/18 12:51
Toluene	**1.5**		**0.37**	**1.2**	**µg/L**	1	05/19/18 12:51
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/19/18 12:51
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/19/18 12:51
Trichloroethene	**1.1**		**0.30**	**0.99**	**µg/L**	1	05/19/18 12:51
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/19/18 12:51
Vinyl chloride	U		0.20	0.68	µg/L	1	05/19/18 12:51
Xylenes, Total	**1.4**	J	**1.3**	**4.4**	**µg/L**	1	05/19/18 12:51
Surr: 1,2-Dichloroethane-d4	*97.0*			*75-120*	*%REC*	1	05/19/18 12:51
Surr: 4-Bromofluorobenzene	*97.4*			*80-110*	*%REC*	1	05/19/18 12:51
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/19/18 12:51
Surr: Toluene-d8	*99.8*			*85-110*	*%REC*	1	05/19/18 12:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-22
Collection Date: 05/09/18 10:50 AM

Work Order: 1805786
Lab ID: 1805786-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/19/18 01:07
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/19/18 01:07
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/19/18 01:07
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/19/18 01:07
1,1-Dichloroethane	**2.9**		**0.31**	**1.0**	**µg/L**	1	05/19/18 01:07
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/19/18 01:07
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/19/18 01:07
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/19/18 01:07
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/19/18 01:07
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 01:07
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/19/18 01:07
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/19/18 01:07
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/19/18 01:07
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/19/18 01:07
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/19/18 01:07
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/19/18 01:07
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/19/18 01:07
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/19/18 01:07
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/19/18 01:07
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 01:07
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/19/18 01:07
2-Butanone	U		0.58	2.0	µg/L	1	05/19/18 01:07
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/19/18 01:07
2-Propanol	**N/A**		**0**		**µg/L**	1	05/19/18 01:07
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/19/18 01:07
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/19/18 01:07
Acetone	U		0.92	3.1	µg/L	1	05/19/18 01:07
Benzene	U		0.30	1.0	µg/L	1	05/19/18 01:07
Bromobenzene	U		0.24	0.80	µg/L	1	05/19/18 01:07
Bromochloromethane	U		0.20	0.66	µg/L	1	05/19/18 01:07
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/19/18 01:07
Bromoform	U		0.77	2.6	µg/L	1	05/19/18 01:07
Bromomethane	U		0.38	1.3	µg/L	1	05/19/18 01:07
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/19/18 01:07
Chlorobenzene	U		0.27	0.90	µg/L	1	05/19/18 01:07
Chloroethane	U		0.29	0.97	µg/L	1	05/19/18 01:07
Chloroform	U		0.26	0.86	µg/L	1	05/19/18 01:07
Chloromethane	U		0.17	0.57	µg/L	1	05/19/18 01:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-22
Collection Date: 05/09/18 10:50 AM

Work Order: 1805786
Lab ID: 1805786-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**14**		**0.25**	**0.85**	**µg/L**	1	05/19/18 01:07
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/19/18 01:07
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/19/18 01:07
Dibromomethane	U		0.25	0.83	µg/L	1	05/19/18 01:07
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/19/18 01:07
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/19/18 01:07
Ethylbenzene	**1.8**		**0.40**	**1.3**	**µg/L**	1	05/19/18 01:07
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/19/18 01:07
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/19/18 01:07
m,p-Xylene	**2.0**	J	**0.98**	**3.3**	**µg/L**	1	05/19/18 01:07
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/19/18 01:07
Methylene chloride	U		0.56	1.8	µg/L	1	05/19/18 01:07
Naphthalene	U		0.18	0.59	µg/L	1	05/19/18 01:07
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/19/18 01:07
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/19/18 01:07
o-Xylene	**5.7**		**0.35**	**1.2**	**µg/L**	1	05/19/18 01:07
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/19/18 01:07
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/19/18 01:07
Styrene	U		0.24	0.79	µg/L	1	05/19/18 01:07
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/19/18 01:07
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/19/18 01:07
Toluene	**3.8**		**0.37**	**1.2**	**µg/L**	1	05/19/18 01:07
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/19/18 01:07
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/19/18 01:07
Trichloroethene	**3.0**		**0.30**	**0.99**	**µg/L**	1	05/19/18 01:07
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/19/18 01:07
Vinyl chloride	**8.6**		**0.20**	**0.68**	**µg/L**	1	05/19/18 01:07
Xylenes, Total	**7.7**		**1.3**	**4.4**	**µg/L**	1	05/19/18 01:07
Surr: 1,2-Dichloroethane-d4	*94.3*			*75-120*	*%REC*	1	05/19/18 01:07
Surr: 4-Bromofluorobenzene	*94.8*			*80-110*	*%REC*	1	05/19/18 01:07
Surr: Dibromofluoromethane	*98.9*			*85-115*	*%REC*	1	05/19/18 01:07
Surr: Toluene-d8	*96.2*			*85-110*	*%REC*	1	05/19/18 01:07

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-26
Collection Date: 05/09/18 08:15 AM

Work Order: 1805786
Lab ID: 1805786-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/19/18 01:23
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/19/18 01:23
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/19/18 01:23
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/19/18 01:23
1,1-Dichloroethane	**1.1**		**0.31**	**1.0**	**µg/L**	1	05/19/18 01:23
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/19/18 01:23
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/19/18 01:23
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/19/18 01:23
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/19/18 01:23
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 01:23
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/19/18 01:23
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/19/18 01:23
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/19/18 01:23
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/19/18 01:23
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/19/18 01:23
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/19/18 01:23
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/19/18 01:23
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/19/18 01:23
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/19/18 01:23
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/19/18 01:23
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/19/18 01:23
2-Butanone	U		0.58	2.0	µg/L	1	05/19/18 01:23
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/19/18 01:23
2-Propanol	**N/A**		**0**		**µg/L**	1	05/19/18 01:23
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/19/18 01:23
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/19/18 01:23
Acetone	**2.4**	J	**0.92**	**3.1**	**µg/L**	1	05/19/18 01:23
Benzene	U		0.30	1.0	µg/L	1	05/19/18 01:23
Bromobenzene	U		0.24	0.80	µg/L	1	05/19/18 01:23
Bromochloromethane	U		0.20	0.66	µg/L	1	05/19/18 01:23
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/19/18 01:23
Bromoform	U		0.77	2.6	µg/L	1	05/19/18 01:23
Bromomethane	U		0.38	1.3	µg/L	1	05/19/18 01:23
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/19/18 01:23
Chlorobenzene	U		0.27	0.90	µg/L	1	05/19/18 01:23
Chloroethane	U		0.29	0.97	µg/L	1	05/19/18 01:23
Chloroform	U		0.26	0.86	µg/L	1	05/19/18 01:23
Chloromethane	U		0.17	0.57	µg/L	1	05/19/18 01:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-26
Collection Date: 05/09/18 08:15 AM

Work Order: 1805786
Lab ID: 1805786-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**9.7**		**0.25**	**0.85**	**µg/L**	1	05/19/18 01:23
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/19/18 01:23
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/19/18 01:23
Dibromomethane	U		0.25	0.83	µg/L	1	05/19/18 01:23
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/19/18 01:23
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/19/18 01:23
Ethylbenzene	**0.42**	J	**0.40**	**1.3**	**µg/L**	1	05/19/18 01:23
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/19/18 01:23
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/19/18 01:23
m,p-Xylene	U		0.98	3.3	µg/L	1	05/19/18 01:23
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/19/18 01:23
Methylene chloride	U		0.56	1.8	µg/L	1	05/19/18 01:23
Naphthalene	U		0.18	0.59	µg/L	1	05/19/18 01:23
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/19/18 01:23
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/19/18 01:23
o-Xylene	**0.36**	J	**0.35**	**1.2**	**µg/L**	1	05/19/18 01:23
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/19/18 01:23
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/19/18 01:23
Styrene	U		0.24	0.79	µg/L	1	05/19/18 01:23
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/19/18 01:23
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/19/18 01:23
Toluene	**3.6**		**0.37**	**1.2**	**µg/L**	1	05/19/18 01:23
trans-1,2-Dichloroethene	**4.9**		**0.28**	**0.93**	**µg/L**	1	05/19/18 01:23
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/19/18 01:23
Trichloroethene	**35**		**0.30**	**0.99**	**µg/L**	1	05/19/18 01:23
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/19/18 01:23
Vinyl chloride	**1.9**		**0.20**	**0.68**	**µg/L**	1	05/19/18 01:23
Xylenes, Total	U		1.3	4.4	µg/L	1	05/19/18 01:23
Surr: 1,2-Dichloroethane-d4	*95.4*			*75-120*	*%REC*	1	05/19/18 01:23
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/19/18 01:23
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	05/19/18 01:23
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/19/18 01:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-29
Collection Date: 05/09/18 11:10 AM

Work Order: 1805786
Lab ID: 1805786-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 03:42
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 03:42
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 03:42
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 03:42
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 03:42
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 03:42
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 03:42
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 03:42
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 03:42
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:42
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 03:42
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 03:42
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 03:42
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 03:42
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 03:42
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 03:42
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 03:42
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 03:42
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 03:42
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:42
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 03:42
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 03:42
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 03:42
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 03:42
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 03:42
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 03:42
Acetone	U		0.92	3.1	µg/L	1	05/18/18 03:42
Benzene	U		0.30	1.0	µg/L	1	05/18/18 03:42
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 03:42
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 03:42
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 03:42
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 03:42
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 03:42
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 03:42
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 03:42
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 03:42
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 03:42
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 03:42

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-29
Collection Date: 05/09/18 11:10 AM

Work Order: 1805786
Lab ID: 1805786-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 03:42
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 03:42
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 03:42
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 03:42
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 03:42
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 03:42
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 03:42
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 03:42
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 03:42
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 03:42
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 03:42
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 03:42
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 03:42
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 03:42
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 03:42
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 03:42
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 03:42
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 03:42
Styrene	U		0.24	0.79	µg/L	1	05/18/18 03:42
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 03:42
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 03:42
Toluene	**1.6**		**0.37**	**1.2**	**µg/L**	1	05/18/18 03:42
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 03:42
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 03:42
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 03:42
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 03:42
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 03:42
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 03:42
Surr: 1,2-Dichloroethane-d4	*93.6*			*75-120*	*%REC*	1	05/18/18 03:42
Surr: 4-Bromofluorobenzene	*97.4*			*80-110*	*%REC*	1	05/18/18 03:42
Surr: Dibromofluoromethane	*98.8*			*85-115*	*%REC*	1	05/18/18 03:42
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	05/18/18 03:42

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-30A
Collection Date: 05/09/18 12:20 PM

Work Order: 1805786
Lab ID: 1805786-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 03:58
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 03:58
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 03:58
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 03:58
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 03:58
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 03:58
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 03:58
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 03:58
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 03:58
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:58
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 03:58
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 03:58
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 03:58
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 03:58
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 03:58
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 03:58
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 03:58
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 03:58
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 03:58
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 03:58
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 03:58
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 03:58
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 03:58
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 03:58
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 03:58
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 03:58
Acetone	**1.5**	J	**0.92**	**3.1**	**µg/L**	1	05/18/18 03:58
Benzene	U		0.30	1.0	µg/L	1	05/18/18 03:58
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 03:58
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 03:58
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 03:58
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 03:58
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 03:58
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 03:58
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 03:58
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 03:58
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 03:58
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 03:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-30A
Collection Date: 05/09/18 12:20 PM

Work Order: 1805786
Lab ID: 1805786-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 03:58
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 03:58
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 03:58
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 03:58
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 03:58
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 03:58
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 03:58
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 03:58
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 03:58
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 03:58
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 03:58
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 03:58
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 03:58
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 03:58
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 03:58
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 03:58
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 03:58
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 03:58
Styrene	U		0.24	0.79	µg/L	1	05/18/18 03:58
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 03:58
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 03:58
Toluene	**1.2**		**0.37**	**1.2**	**µg/L**	1	05/18/18 03:58
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 03:58
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 03:58
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 03:58
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 03:58
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 03:58
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 03:58
Surr: 1,2-Dichloroethane-d4	*95.1*			*75-120*	*%REC*	1	05/18/18 03:58
Surr: 4-Bromofluorobenzene	*96.0*			*80-110*	*%REC*	1	05/18/18 03:58
Surr: Dibromofluoromethane	*97.6*			*85-115*	*%REC*	1	05/18/18 03:58
Surr: Toluene-d8	*96.8*			*85-110*	*%REC*	1	05/18/18 03:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-30B
Collection Date: 05/09/18 12:05 PM

Work Order: 1805786
Lab ID: 1805786-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 04:14
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 04:14
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 04:14
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 04:14
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 04:14
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 04:14
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 04:14
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 04:14
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 04:14
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:14
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 04:14
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 04:14
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 04:14
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 04:14
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 04:14
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 04:14
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 04:14
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 04:14
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 04:14
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:14
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 04:14
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 04:14
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 04:14
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 04:14
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 04:14
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 04:14
Acetone	U		0.92	3.1	µg/L	1	05/18/18 04:14
Benzene	U		0.30	1.0	µg/L	1	05/18/18 04:14
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 04:14
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 04:14
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 04:14
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 04:14
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 04:14
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 04:14
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 04:14
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 04:14
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 04:14
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 04:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-30B
Collection Date: 05/09/18 12:05 PM

Work Order: 1805786
Lab ID: 1805786-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 04:14
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 04:14
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 04:14
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 04:14
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 04:14
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 04:14
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 04:14
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 04:14
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 04:14
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 04:14
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 04:14
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 04:14
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 04:14
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 04:14
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 04:14
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 04:14
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 04:14
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 04:14
Styrene	U		0.24	0.79	µg/L	1	05/18/18 04:14
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 04:14
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 04:14
Toluene	**0.94**	J	**0.37**	**1.2**	**µg/L**	1	05/18/18 04:14
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 04:14
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 04:14
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 04:14
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 04:14
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 04:14
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 04:14
Surr: 1,2-Dichloroethane-d4	*97.7*			*75-120*	*%REC*	1	05/18/18 04:14
Surr: 4-Bromofluorobenzene	*97.4*			*80-110*	*%REC*	1	05/18/18 04:14
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 04:14
Surr: Toluene-d8	*99.4*			*85-110*	*%REC*	1	05/18/18 04:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-32
Collection Date: 05/09/18 02:35 PM

Work Order: 1805786
Lab ID: 1805786-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
GASES IN WATER		Method: **RSK-175**					Analyst: **MEB**
Ethane	**12**		**0.21**	**5.0**	**µg/L**	1	05/16/18 16:41
Ethene	U		0.41	5.0	µg/L	1	05/16/18 16:41
Methane	**17**		**0.64**	**5.0**	**µg/L**	1	05/16/18 16:41
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3005A / 5/16/18		Analyst: **JF**
Iron	U		0.015	0.080	mg/L	1	05/16/18 15:18
Manganese	**0.16**		**0.00026**	**0.0050**	**mg/L**	1	05/16/18 15:18
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		11	37	µg/L	50	05/18/18 06:54
1,1,1-Trichloroethane	**9,100**		**72**	**240**	**µg/L**	200	05/18/18 06:22
1,1,2,2-Tetrachloroethane	U		9.3	31	µg/L	50	05/18/18 06:54
1,1,2-Trichloroethane	U		20	66	µg/L	50	05/18/18 06:54
1,1-Dichloroethane	**140**		**15**	**52**	**µg/L**	50	05/18/18 06:54
1,1-Dichloroethene	**480**		**14**	**46**	**µg/L**	50	05/18/18 06:54
1,1-Dichloropropene	U		18	59	µg/L	50	05/18/18 06:54
1,2,3-Trichlorobenzene	U		8.3	28	µg/L	50	05/18/18 06:54
1,2,3-Trichloropropane	U		5.5	20	µg/L	50	05/18/18 06:54
1,2,4-Trichlorobenzene	U		11	36	µg/L	50	05/18/18 06:54
1,2,4-Trimethylbenzene	U		19	62	µg/L	50	05/18/18 06:54
1,2-Dibromo-3-chloropropane	U		49	160	µg/L	50	05/18/18 06:54
1,2-Dibromoethane	U		49	160	µg/L	50	05/18/18 06:54
1,2-Dichlorobenzene	U		11	36	µg/L	50	05/18/18 06:54
1,2-Dichloroethane	U		8.3	28	µg/L	50	05/18/18 06:54
1,2-Dichloropropane	U		12	42	µg/L	50	05/18/18 06:54
1,3,5-Trimethylbenzene	U		14	48	µg/L	50	05/18/18 06:54
1,3-Dichlorobenzene	U		14	48	µg/L	50	05/18/18 06:54
1,3-Dichloropropane	U		9.2	30	µg/L	50	05/18/18 06:54
1,4-Dichlorobenzene	U		11	36	µg/L	50	05/18/18 06:54
2,2-Dichloropropane	U		22	74	µg/L	50	05/18/18 06:54
2-Butanone	**150**		**29**	**98**	**µg/L**	50	05/18/18 06:54
2-Chlorotoluene	U		16	54	µg/L	50	05/18/18 06:54
2-Propanol	**N/A**		**0**		**µg/L**	50	05/18/18 06:54
4-Chlorotoluene	U		14	48	µg/L	50	05/18/18 06:54
4-Methyl-2-pentanone	U		5.7	20	µg/L	50	05/18/18 06:54
Acetone	**610**		**46**	**150**	**µg/L**	50	05/18/18 06:54
Benzene	U		15	50	µg/L	50	05/18/18 06:54
Bromobenzene	U		12	40	µg/L	50	05/18/18 06:54
Bromochloromethane	U		9.8	33	µg/L	50	05/18/18 06:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-32
Collection Date: 05/09/18 02:35 PM

Work Order: 1805786
Lab ID: 1805786-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	U		12	39	µg/L	50	05/18/18 06:54
Bromoform	U		38	130	µg/L	50	05/18/18 06:54
Bromomethane	U		19	63	µg/L	50	05/18/18 06:54
Carbon tetrachloride	U		16	52	µg/L	50	05/18/18 06:54
Chlorobenzene	U		14	45	µg/L	50	05/18/18 06:54
Chloroethane	U		15	48	µg/L	50	05/18/18 06:54
Chloroform	U		13	43	µg/L	50	05/18/18 06:54
Chloromethane	U		8.6	28	µg/L	50	05/18/18 06:54
cis-1,2-Dichloroethene	**230**		**13**	**42**	**µg/L**	50	05/18/18 06:54
cis-1,3-Dichloropropene	U		20	66	µg/L	50	05/18/18 06:54
Dibromochloromethane	U		19	62	µg/L	50	05/18/18 06:54
Dibromomethane	U		12	42	µg/L	50	05/18/18 06:54
Dichlorodifluoromethane	U		6.6	22	µg/L	50	05/18/18 06:54
Diisopropyl ether	U		6.5	22	µg/L	50	05/18/18 06:54
Ethylbenzene	**32**	J	**20**	**67**	**µg/L**	50	05/18/18 06:54
Hexachlorobutadiene	U		12	40	µg/L	50	05/18/18 06:54
Isopropylbenzene	U		16	52	µg/L	50	05/18/18 06:54
m,p-Xylene	**100**	J	**49**	**160**	**µg/L**	50	05/18/18 06:54
Methyl tert-butyl ether	U		5.8	20	µg/L	50	05/18/18 06:54
Methylene chloride	U		28	92	µg/L	50	05/18/18 06:54
Naphthalene	U		8.8	30	µg/L	50	05/18/18 06:54
n-Butylbenzene	U		11	36	µg/L	50	05/18/18 06:54
n-Propylbenzene	U		12	40	µg/L	50	05/18/18 06:54
o-Xylene	**37**	J	**18**	**59**	**µg/L**	50	05/18/18 06:54
p-Isopropyltoluene	U		7.2	24	µg/L	50	05/18/18 06:54
sec-Butylbenzene	U		15	49	µg/L	50	05/18/18 06:54
Styrene	U		12	40	µg/L	50	05/18/18 06:54
tert-Butylbenzene	U		17	58	µg/L	50	05/18/18 06:54
Tetrachloroethene	**3,900**		**14**	**46**	**µg/L**	50	05/18/18 06:54
Toluene	**140**		**18**	**61**	**µg/L**	50	05/18/18 06:54
trans-1,2-Dichloroethene	U		14	46	µg/L	50	05/18/18 06:54
trans-1,3-Dichloropropene	U		41	140	µg/L	50	05/18/18 06:54
Trichloroethene	**8,300**		**60**	**200**	**µg/L**	200	05/18/18 06:22
Trichlorofluoromethane	U		10	33	µg/L	50	05/18/18 06:54
Vinyl chloride	U		10	34	µg/L	50	05/18/18 06:54
Xylenes, Total	**140**	J	**66**	**220**	**µg/L**	50	05/18/18 06:54
Surr: 1,2-Dichloroethane-d4	*99.6*			*75-120*	*%REC*	200	05/18/18 06:22
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	50	05/18/18 06:54
Surr: 4-Bromofluorobenzene	*95.8*			*80-110*	*%REC*	200	05/18/18 06:22
Surr: 4-Bromofluorobenzene	*102*			*80-110*	*%REC*	50	05/18/18 06:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-32
Collection Date: 05/09/18 02:35 PM

Work Order: 1805786
Lab ID: 1805786-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	200	05/18/18 06:22
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	50	05/18/18 06:54
Surr: Toluene-d8	*97.6*			*85-110*	*%REC*	200	05/18/18 06:22
Surr: Toluene-d8	*97.0*			*85-110*	*%REC*	50	05/18/18 06:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-34
Collection Date: 05/09/18 03:00 PM

Work Order: 1805786
Lab ID: 1805786-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
GASES IN WATER		Method: **RSK-175**					Analyst: **MEB**
Ethane	U		0.21	5.0	µg/L	1	05/16/18 17:30
Ethene	**3.8**	J	**0.41**	**5.0**	**µg/L**	1	05/16/18 17:30
Methane	**9.8**		**0.64**	**5.0**	**µg/L**	1	05/16/18 17:30
METALS BY ICP-MS (DISSOLVED)		Method: **SW6020A**			Prep: SW3005A / 5/16/18		Analyst: **JF**
Iron	**1.1**		**0.015**	**0.080**	**mg/L**	1	05/16/18 15:19
Manganese	**4.4**		**0.0026**	**0.050**	**mg/L**	10	05/17/18 12:44
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		11	37	µg/L	50	05/18/18 07:15
1,1,1-Trichloroethane	**31,000**		**180**	**600**	**µg/L**	500	05/18/18 16:10
1,1,2,2-Tetrachloroethane	U		9.3	31	µg/L	50	05/18/18 07:15
1,1,2-Trichloroethane	**870**		**20**	**66**	**µg/L**	50	05/18/18 07:15
1,1-Dichloroethane	**1,200**		**15**	**52**	**µg/L**	50	05/18/18 07:15
1,1-Dichloroethene	**1,900**		**14**	**46**	**µg/L**	50	05/18/18 07:15
1,1-Dichloropropene	U		18	59	µg/L	50	05/18/18 07:15
1,2,3-Trichlorobenzene	U		8.3	28	µg/L	50	05/18/18 07:15
1,2,3-Trichloropropane	U		5.5	20	µg/L	50	05/18/18 07:15
1,2,4-Trichlorobenzene	U		11	36	µg/L	50	05/18/18 07:15
1,2,4-Trimethylbenzene	U		19	62	µg/L	50	05/18/18 07:15
1,2-Dibromo-3-chloropropane	U		49	160	µg/L	50	05/18/18 07:15
1,2-Dibromoethane	U		49	160	µg/L	50	05/18/18 07:15
1,2-Dichlorobenzene	**48**		**11**	**36**	**µg/L**	50	05/18/18 07:15
1,2-Dichloroethane	**140**		**8.3**	**28**	**µg/L**	50	05/18/18 07:15
1,2-Dichloropropane	**340**		**12**	**42**	**µg/L**	50	05/18/18 07:15
1,3,5-Trimethylbenzene	U		14	48	µg/L	50	05/18/18 07:15
1,3-Dichlorobenzene	U		14	48	µg/L	50	05/18/18 07:15
1,3-Dichloropropane	U		9.2	30	µg/L	50	05/18/18 07:15
1,4-Dichlorobenzene	U		11	36	µg/L	50	05/18/18 07:15
2,2-Dichloropropane	U		22	74	µg/L	50	05/18/18 07:15
2-Butanone	U		29	98	µg/L	50	05/18/18 07:15
2-Chlorotoluene	U		16	54	µg/L	50	05/18/18 07:15
2-Propanol	**N/A**		**0**		**µg/L**	50	05/18/18 07:15
4-Chlorotoluene	U		14	48	µg/L	50	05/18/18 07:15
4-Methyl-2-pentanone	**68**		**5.7**	**20**	**µg/L**	50	05/18/18 07:15
Acetone	U		46	150	µg/L	50	05/18/18 07:15
Benzene	U		15	50	µg/L	50	05/18/18 07:15
Bromobenzene	U		12	40	µg/L	50	05/18/18 07:15
Bromochloromethane	U		9.8	33	µg/L	50	05/18/18 07:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-34
Collection Date: 05/09/18 03:00 PM

Work Order: 1805786
Lab ID: 1805786-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	U		12	39	µg/L	50	05/18/18 07:15
Bromoform	U		38	130	µg/L	50	05/18/18 07:15
Bromomethane	U		19	63	µg/L	50	05/18/18 07:15
Carbon tetrachloride	U		16	52	µg/L	50	05/18/18 07:15
Chlorobenzene	U		14	45	µg/L	50	05/18/18 07:15
Chloroethane	U		15	48	µg/L	50	05/18/18 07:15
Chloroform	**96**		**13**	**43**	**µg/L**	50	05/18/18 07:15
Chloromethane	U		8.6	28	µg/L	50	05/18/18 07:15
cis-1,2-Dichloroethene	**7,800**		**51**	**170**	**µg/L**	200	05/18/18 06:38
cis-1,3-Dichloropropene	U		20	66	µg/L	50	05/18/18 07:15
Dibromochloromethane	U		19	62	µg/L	50	05/18/18 07:15
Dibromomethane	U		12	42	µg/L	50	05/18/18 07:15
Dichlorodifluoromethane	U		6.6	22	µg/L	50	05/18/18 07:15
Diisopropyl ether	U		6.5	22	µg/L	50	05/18/18 07:15
Ethylbenzene	**110**		**20**	**67**	**µg/L**	50	05/18/18 07:15
Hexachlorobutadiene	U		12	40	µg/L	50	05/18/18 07:15
Isopropylbenzene	U		16	52	µg/L	50	05/18/18 07:15
m,p-Xylene	**390**		**49**	**160**	**µg/L**	50	05/18/18 07:15
Methyl tert-butyl ether	U		5.8	20	µg/L	50	05/18/18 07:15
Methylene chloride	**3,300**		**28**	**92**	**µg/L**	50	05/18/18 07:15
Naphthalene	U		8.8	30	µg/L	50	05/18/18 07:15
n-Butylbenzene	U		11	36	µg/L	50	05/18/18 07:15
n-Propylbenzene	U		12	40	µg/L	50	05/18/18 07:15
o-Xylene	**250**		**18**	**59**	**µg/L**	50	05/18/18 07:15
p-Isopropyltoluene	U		7.2	24	µg/L	50	05/18/18 07:15
sec-Butylbenzene	U		15	49	µg/L	50	05/18/18 07:15
Styrene	U		12	40	µg/L	50	05/18/18 07:15
tert-Butylbenzene	U		17	58	µg/L	50	05/18/18 07:15
Tetrachloroethene	**9,800**		**55**	**180**	**µg/L**	200	05/18/18 06:38
Toluene	**800**		**18**	**61**	**µg/L**	50	05/18/18 07:15
trans-1,2-Dichloroethene	U		14	46	µg/L	50	05/18/18 07:15
trans-1,3-Dichloropropene	U		41	140	µg/L	50	05/18/18 07:15
Trichloroethene	**39,000**		**150**	**500**	**µg/L**	500	05/18/18 16:10
Trichlorofluoromethane	U		10	33	µg/L	50	05/18/18 07:15
Vinyl chloride	U		10	34	µg/L	50	05/18/18 07:15
Xylenes, Total	**640**		**66**	**220**	**µg/L**	50	05/18/18 07:15
Surr: 1,2-Dichloroethane-d4	*98.2*			*75-120*	*%REC*	200	05/18/18 06:38
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	50	05/18/18 07:15
Surr: 1,2-Dichloroethane-d4	*94.4*			*75-120*	*%REC*	500	05/18/18 16:10
Surr: 4-Bromofluorobenzene	*93.4*			*80-110*	*%REC*	200	05/18/18 06:38

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: W-34
Collection Date: 05/09/18 03:00 PM

Work Order: 1805786
Lab ID: 1805786-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*93.2*			*80-110*	*%REC*	50	05/18/18 07:15
Surr: 4-Bromofluorobenzene	*94.0*			*80-110*	*%REC*	500	05/18/18 16:10
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	200	05/18/18 06:38
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	50	05/18/18 07:15
Surr: Dibromofluoromethane	*99.2*			*85-115*	*%REC*	500	05/18/18 16:10
Surr: Toluene-d8	*98.0*			*85-110*	*%REC*	200	05/18/18 06:38
Surr: Toluene-d8	*95.4*			*85-110*	*%REC*	50	05/18/18 07:15
Surr: Toluene-d8	*94.8*			*85-110*	*%REC*	500	05/18/18 16:10
NITROGEN, NITRATE-NITRITE		Method:	**E353.2 R2.0**				Analyst: **JJG**
Nitrogen, Nitrate-Nitrite	**0.30**		**0.012**	**0.020**	**mg/L**	1	05/17/18 09:57
ORGANIC CARBON, TOTAL		Method:	**SW9060A**				Analyst: **JJG**
Organic Carbon, Total	**28**		**0.22**	**2.0**	**mg/L**	4	05/12/18 15:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-106
Collection Date: 05/09/18 11:40 AM

Work Order: 1805786
Lab ID: 1805786-24
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 04:30
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 04:30
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 04:30
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 04:30
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 04:30
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 04:30
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 04:30
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 04:30
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 04:30
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:30
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 04:30
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 04:30
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 04:30
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 04:30
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 04:30
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 04:30
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 04:30
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 04:30
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 04:30
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:30
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 04:30
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 04:30
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 04:30
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 04:30
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 04:30
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 04:30
Acetone	**1.2**	J	**0.92**	**3.1**	**µg/L**	1	05/18/18 04:30
Benzene	U		0.30	1.0	µg/L	1	05/18/18 04:30
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 04:30
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 04:30
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 04:30
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 04:30
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 04:30
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 04:30
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 04:30
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 04:30
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 04:30
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 04:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-106
Collection Date: 05/09/18 11:40 AM

Work Order: 1805786
Lab ID: 1805786-24
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 04:30
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 04:30
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 04:30
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 04:30
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 04:30
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 04:30
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 04:30
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 04:30
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 04:30
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 04:30
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 04:30
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 04:30
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 04:30
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 04:30
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 04:30
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 04:30
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 04:30
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 04:30
Styrene	U		0.24	0.79	µg/L	1	05/18/18 04:30
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 04:30
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 04:30
Toluene	**1.3**		**0.37**	**1.2**	**µg/L**	1	05/18/18 04:30
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 04:30
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 04:30
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 04:30
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 04:30
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 04:30
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 04:30
Surr: 1,2-Dichloroethane-d4	*98.2*			*75-120*	*%REC*	1	05/18/18 04:30
Surr: 4-Bromofluorobenzene	*101*			*80-110*	*%REC*	1	05/18/18 04:30
Surr: Dibromofluoromethane	*99.8*			*85-115*	*%REC*	1	05/18/18 04:30
Surr: Toluene-d8	*101*			*85-110*	*%REC*	1	05/18/18 04:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-106A
Collection Date: 05/09/18 11:25 AM

Work Order: 1805786
Lab ID: 1805786-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 04:46
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 04:46
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 04:46
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 04:46
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 04:46
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 04:46
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 04:46
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 04:46
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 04:46
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:46
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 04:46
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 04:46
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 04:46
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 04:46
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 04:46
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 04:46
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 04:46
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 04:46
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 04:46
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 04:46
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 04:46
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 04:46
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 04:46
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 04:46
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 04:46
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 04:46
Acetone	**1.3**	J	**0.92**	**3.1**	**µg/L**	1	05/18/18 04:46
Benzene	U		0.30	1.0	µg/L	1	05/18/18 04:46
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 04:46
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 04:46
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 04:46
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 04:46
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 04:46
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 04:46
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 04:46
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 04:46
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 04:46
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 04:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-106A
Collection Date: 05/09/18 11:25 AM

Work Order: 1805786
Lab ID: 1805786-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 04:46
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 04:46
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 04:46
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 04:46
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 04:46
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 04:46
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 04:46
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 04:46
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 04:46
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 04:46
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 04:46
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 04:46
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 04:46
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 04:46
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 04:46
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 04:46
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 04:46
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 04:46
Styrene	U		0.24	0.79	µg/L	1	05/18/18 04:46
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 04:46
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 04:46
Toluene	**3.1**		**0.37**	**1.2**	**µg/L**	1	05/18/18 04:46
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 04:46
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 04:46
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 04:46
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 04:46
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 04:46
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 04:46
Surr: 1,2-Dichloroethane-d4	*98.0*			*75-120*	*%REC*	1	05/18/18 04:46
Surr: 4-Bromofluorobenzene	*95.9*			*80-110*	*%REC*	1	05/18/18 04:46
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	05/18/18 04:46
Surr: Toluene-d8	*97.3*			*85-110*	*%REC*	1	05/18/18 04:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113
Collection Date: 05/09/18 07:50 AM

Work Order: 1805786
Lab ID: 1805786-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 05:02
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 05:02
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 05:02
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 05:02
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 05:02
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 05:02
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 05:02
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 05:02
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 05:02
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:02
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 05:02
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 05:02
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 05:02
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 05:02
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 05:02
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 05:02
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 05:02
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 05:02
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 05:02
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:02
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 05:02
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 05:02
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 05:02
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 05:02
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 05:02
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 05:02
Acetone	U		0.92	3.1	µg/L	1	05/18/18 05:02
Benzene	U		0.30	1.0	µg/L	1	05/18/18 05:02
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 05:02
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 05:02
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 05:02
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 05:02
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 05:02
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 05:02
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 05:02
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 05:02
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 05:02
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 05:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113
Collection Date: 05/09/18 07:50 AM

Work Order: 1805786
Lab ID: 1805786-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 05:02
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 05:02
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 05:02
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 05:02
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 05:02
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 05:02
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 05:02
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 05:02
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 05:02
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 05:02
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 05:02
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 05:02
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 05:02
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 05:02
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 05:02
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 05:02
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 05:02
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 05:02
Styrene	U		0.24	0.79	µg/L	1	05/18/18 05:02
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 05:02
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 05:02
Toluene	U		0.37	1.2	µg/L	1	05/18/18 05:02
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 05:02
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 05:02
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 05:02
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 05:02
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 05:02
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 05:02
Surr: 1,2-Dichloroethane-d4	*98.2*			*75-120*	*%REC*	1	05/18/18 05:02
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/18/18 05:02
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 05:02
Surr: Toluene-d8	*98.2*			*85-110*	*%REC*	1	05/18/18 05:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113A
Collection Date: 05/09/18 07:00 AM

Work Order: 1805786
Lab ID: 1805786-27
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 05:18
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 05:18
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 05:18
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 05:18
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 05:18
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 05:18
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 05:18
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 05:18
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 05:18
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:18
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 05:18
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 05:18
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 05:18
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 05:18
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 05:18
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 05:18
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 05:18
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 05:18
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 05:18
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:18
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 05:18
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 05:18
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 05:18
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 05:18
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 05:18
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 05:18
Acetone	U		0.92	3.1	µg/L	1	05/18/18 05:18
Benzene	U		0.30	1.0	µg/L	1	05/18/18 05:18
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 05:18
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 05:18
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 05:18
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 05:18
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 05:18
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 05:18
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 05:18
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 05:18
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 05:18
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 05:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113A
Collection Date: 05/09/18 07:00 AM

Work Order: 1805786
Lab ID: 1805786-27
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 05:18
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 05:18
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 05:18
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 05:18
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 05:18
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 05:18
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 05:18
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 05:18
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 05:18
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 05:18
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 05:18
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 05:18
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 05:18
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 05:18
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 05:18
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 05:18
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 05:18
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 05:18
Styrene	U		0.24	0.79	µg/L	1	05/18/18 05:18
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 05:18
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 05:18
Toluene	**2.7**		**0.37**	**1.2**	**µg/L**	1	05/18/18 05:18
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 05:18
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 05:18
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 05:18
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 05:18
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 05:18
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 05:18
Surr: 1,2-Dichloroethane-d4	*97.0*			*75-120*	*%REC*	1	05/18/18 05:18
Surr: 4-Bromofluorobenzene	*95.6*			*80-110*	*%REC*	1	05/18/18 05:18
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 05:18
Surr: Toluene-d8	*98.0*			*85-110*	*%REC*	1	05/18/18 05:18

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113B
Collection Date: 05/09/18 07:15 AM

Work Order: 1805786
Lab ID: 1805786-28
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 05:34
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 05:34
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 05:34
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 05:34
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 05:34
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 05:34
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 05:34
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 05:34
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 05:34
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:34
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 05:34
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 05:34
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 05:34
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 05:34
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 05:34
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 05:34
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 05:34
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 05:34
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 05:34
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 05:34
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 05:34
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 05:34
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 05:34
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 05:34
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 05:34
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 05:34
Acetone	U		0.92	3.1	µg/L	1	05/18/18 05:34
Benzene	U		0.30	1.0	µg/L	1	05/18/18 05:34
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 05:34
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 05:34
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 05:34
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 05:34
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 05:34
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 05:34
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 05:34
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 05:34
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 05:34
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 05:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-113B
Collection Date: 05/09/18 07:15 AM

Work Order: 1805786
Lab ID: 1805786-28
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 05:34
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 05:34
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 05:34
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 05:34
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 05:34
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 05:34
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 05:34
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 05:34
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 05:34
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 05:34
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 05:34
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 05:34
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 05:34
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 05:34
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 05:34
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 05:34
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 05:34
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 05:34
Styrene	U		0.24	0.79	µg/L	1	05/18/18 05:34
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 05:34
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 05:34
Toluene	**1.6**		**0.37**	**1.2**	**µg/L**	1	05/18/18 05:34
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 05:34
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 05:34
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 05:34
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 05:34
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 05:34
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 05:34
Surr: 1,2-Dichloroethane-d4	*99.8*			*75-120*	*%REC*	1	05/18/18 05:34
Surr: 4-Bromofluorobenzene	*93.9*			*80-110*	*%REC*	1	05/18/18 05:34
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 05:34
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	1	05/18/18 05:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-116
Collection Date: 05/09/18 10:30 AM

Work Order: 1805786
Lab ID: 1805786-29
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 01:15
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 01:15
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 01:15
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 01:15
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 01:15
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 01:15
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 01:15
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 01:15
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 01:15
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 01:15
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 01:15
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 01:15
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 01:15
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 01:15
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 01:15
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 01:15
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 01:15
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 01:15
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 01:15
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 01:15
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 01:15
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 01:15
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 01:15
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 01:15
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 01:15
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 01:15
Acetone	U		0.92	3.1	µg/L	1	05/18/18 01:15
Benzene	U		0.30	1.0	µg/L	1	05/18/18 01:15
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 01:15
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 01:15
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 01:15
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 01:15
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 01:15
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 01:15
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 01:15
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 01:15
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 01:15
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 01:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MW-116
Collection Date: 05/09/18 10:30 AM

Work Order: 1805786
Lab ID: 1805786-29
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 01:15
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 01:15
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 01:15
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 01:15
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 01:15
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 01:15
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 01:15
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 01:15
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 01:15
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 01:15
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 01:15
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 01:15
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 01:15
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 01:15
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 01:15
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 01:15
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 01:15
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 01:15
Styrene	U		0.24	0.79	µg/L	1	05/18/18 01:15
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 01:15
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 01:15
Toluene	**2.6**		**0.37**	**1.2**	**µg/L**	1	05/18/18 01:15
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 01:15
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 01:15
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 01:15
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 01:15
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 01:15
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 01:15
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	1	05/18/18 01:15
Surr: 4-Bromofluorobenzene	*97.0*			*80-110*	*%REC*	1	05/18/18 01:15
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	1	05/18/18 01:15
Surr: Toluene-d8	*99.9*			*85-110*	*%REC*	1	05/18/18 01:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Method Blank
Collection Date: 05/09/18 09:05 AM

Work Order: 1805786
Lab ID: 1805786-30
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/18/18 01:37
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/18/18 01:37
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/18/18 01:37
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/18/18 01:37
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/18/18 01:37
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/18/18 01:37
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/18/18 01:37
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/18/18 01:37
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/18/18 01:37
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 01:37
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/18/18 01:37
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/18/18 01:37
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/18/18 01:37
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/18/18 01:37
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/18/18 01:37
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/18/18 01:37
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/18/18 01:37
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/18/18 01:37
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/18/18 01:37
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/18/18 01:37
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/18/18 01:37
2-Butanone	U		0.58	2.0	µg/L	1	05/18/18 01:37
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/18/18 01:37
2-Propanol	**N/A**		**0**		**µg/L**	1	05/18/18 01:37
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/18/18 01:37
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/18/18 01:37
Acetone	U		0.92	3.1	µg/L	1	05/18/18 01:37
Benzene	U		0.30	1.0	µg/L	1	05/18/18 01:37
Bromobenzene	U		0.24	0.80	µg/L	1	05/18/18 01:37
Bromochloromethane	U		0.20	0.66	µg/L	1	05/18/18 01:37
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/18/18 01:37
Bromoform	U		0.77	2.6	µg/L	1	05/18/18 01:37
Bromomethane	U		0.38	1.3	µg/L	1	05/18/18 01:37
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/18/18 01:37
Chlorobenzene	U		0.27	0.90	µg/L	1	05/18/18 01:37
Chloroethane	U		0.29	0.97	µg/L	1	05/18/18 01:37
Chloroform	U		0.26	0.86	µg/L	1	05/18/18 01:37
Chloromethane	U		0.17	0.57	µg/L	1	05/18/18 01:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Method Blank
Collection Date: 05/09/18 09:05 AM

Work Order: 1805786
Lab ID: 1805786-30
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/18/18 01:37
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/18/18 01:37
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/18/18 01:37
Dibromomethane	U		0.25	0.83	µg/L	1	05/18/18 01:37
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/18/18 01:37
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/18/18 01:37
Ethylbenzene	U		0.40	1.3	µg/L	1	05/18/18 01:37
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/18/18 01:37
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/18/18 01:37
m,p-Xylene	U		0.98	3.3	µg/L	1	05/18/18 01:37
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/18/18 01:37
Methylene chloride	U		0.56	1.8	µg/L	1	05/18/18 01:37
Naphthalene	U		0.18	0.59	µg/L	1	05/18/18 01:37
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/18/18 01:37
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/18/18 01:37
o-Xylene	U		0.35	1.2	µg/L	1	05/18/18 01:37
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/18/18 01:37
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/18/18 01:37
Styrene	U		0.24	0.79	µg/L	1	05/18/18 01:37
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/18/18 01:37
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/18/18 01:37
Toluene	U		0.37	1.2	µg/L	1	05/18/18 01:37
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/18/18 01:37
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/18/18 01:37
Trichloroethene	U		0.30	0.99	µg/L	1	05/18/18 01:37
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/18/18 01:37
Vinyl chloride	U		0.20	0.68	µg/L	1	05/18/18 01:37
Xylenes, Total	U		1.3	4.4	µg/L	1	05/18/18 01:37
Surr: 1,2-Dichloroethane-d4	*109*			*75-120*	*%REC*	1	05/18/18 01:37
Surr: 4-Bromofluorobenzene	*90.4*			*80-110*	*%REC*	1	05/18/18 01:37
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	05/18/18 01:37
Surr: Toluene-d8	*97.8*			*85-110*	*%REC*	1	05/18/18 01:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: *23-Jun-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/09/18

Work Order: 1805786
Lab ID: 1805786-31
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **LSY**
1,1,1,2-Tetrachloroethane	U		0.22	0.74	µg/L	1	05/17/18 01:42
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	05/17/18 01:42
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	05/17/18 01:42
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	05/17/18 01:42
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	05/17/18 01:42
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	05/17/18 01:42
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	05/17/18 01:42
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	05/17/18 01:42
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	05/17/18 01:42
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:42
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	05/17/18 01:42
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	05/17/18 01:42
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	05/17/18 01:42
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	05/17/18 01:42
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	05/17/18 01:42
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	05/17/18 01:42
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	05/17/18 01:42
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	05/17/18 01:42
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	05/17/18 01:42
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	05/17/18 01:42
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	05/17/18 01:42
2-Butanone	U		0.58	2.0	µg/L	1	05/17/18 01:42
2-Chlorotoluene	U		0.32	1.1	µg/L	1	05/17/18 01:42
2-Propanol	**N/A**		**0**		**µg/L**	1	05/17/18 01:42
4-Chlorotoluene	U		0.28	0.95	µg/L	1	05/17/18 01:42
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	05/17/18 01:42
Acetone	U		0.92	3.1	µg/L	1	05/17/18 01:42
Benzene	U		0.30	1.0	µg/L	1	05/17/18 01:42
Bromobenzene	U		0.24	0.80	µg/L	1	05/17/18 01:42
Bromochloromethane	U		0.20	0.66	µg/L	1	05/17/18 01:42
Bromodichloromethane	U		0.23	0.78	µg/L	1	05/17/18 01:42
Bromoform	U		0.77	2.6	µg/L	1	05/17/18 01:42
Bromomethane	U		0.38	1.3	µg/L	1	05/17/18 01:42
Carbon tetrachloride	U		0.31	1.0	µg/L	1	05/17/18 01:42
Chlorobenzene	U		0.27	0.90	µg/L	1	05/17/18 01:42
Chloroethane	U		0.29	0.97	µg/L	1	05/17/18 01:42
Chloroform	U		0.26	0.86	µg/L	1	05/17/18 01:42
Chloromethane	U		0.17	0.57	µg/L	1	05/17/18 01:42

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 05/09/18

Work Order: 1805786
Lab ID: 1805786-31
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		0.25	0.85	µg/L	1	05/17/18 01:42
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	05/17/18 01:42
Dibromochloromethane	U		0.38	1.2	µg/L	1	05/17/18 01:42
Dibromomethane	U		0.25	0.83	µg/L	1	05/17/18 01:42
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	05/17/18 01:42
Diisopropyl ether	U		0.13	0.43	µg/L	1	05/17/18 01:42
Ethylbenzene	U		0.40	1.3	µg/L	1	05/17/18 01:42
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	05/17/18 01:42
Isopropylbenzene	U		0.31	1.0	µg/L	1	05/17/18 01:42
m,p-Xylene	U		0.98	3.3	µg/L	1	05/17/18 01:42
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	05/17/18 01:42
Methylene chloride	U		0.56	1.8	µg/L	1	05/17/18 01:42
Naphthalene	U		0.18	0.59	µg/L	1	05/17/18 01:42
n-Butylbenzene	U		0.22	0.73	µg/L	1	05/17/18 01:42
n-Propylbenzene	U		0.24	0.81	µg/L	1	05/17/18 01:42
o-Xylene	U		0.35	1.2	µg/L	1	05/17/18 01:42
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	05/17/18 01:42
sec-Butylbenzene	U		0.29	0.98	µg/L	1	05/17/18 01:42
Styrene	U		0.24	0.79	µg/L	1	05/17/18 01:42
tert-Butylbenzene	U		0.34	1.2	µg/L	1	05/17/18 01:42
Tetrachloroethene	U		0.27	0.91	µg/L	1	05/17/18 01:42
Toluene	U		0.37	1.2	µg/L	1	05/17/18 01:42
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	05/17/18 01:42
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	05/17/18 01:42
Trichloroethene	U		0.30	0.99	µg/L	1	05/17/18 01:42
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	05/17/18 01:42
Vinyl chloride	U		0.20	0.68	µg/L	1	05/17/18 01:42
Xylenes, Total	U		1.3	4.4	µg/L	1	05/17/18 01:42
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	1	05/17/18 01:42
Surr: 4-Bromofluorobenzene	*96.2*			*80-110*	*%REC*	1	05/17/18 01:42
Surr: Dibromofluoromethane	*95.2*			*85-115*	*%REC*	1	05/17/18 01:42
Surr: Toluene-d8	*95.0*			*85-110*	*%REC*	1	05/17/18 01:42

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 2

ALS Group, USA

Date: 23-Jun-18

Client: Gannett Fleming, Inc.

Work Order: 1805786

Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236070** Instrument ID **GC10** Method: **RSK-175**

MBLK Sample ID: **RBLK1-180516-R236070** Units: **µg/L** Analysis Date: **05/16/18 03:06 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038161** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	U	0.21	5.0								
Ethene	U	0.41	5.0								
Methane	U	0.64	5.0								

LCS Sample ID: **RLCS1-180516-R236070** Units: **µg/L** Analysis Date: **05/16/18 04:29 PM**

Client ID: Run ID: **GC10_180516A** SeqNo: **5038179** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	40.82	0.21	5.0	36.1	0	113	75-125	0			
Ethene	36.77	0.41	5.0	33.7	0	109	75-125	0			
Methane	20.35	0.64	5.0	19.2	0	106	75-125	0			

MS Sample ID: **1805786-23B MS** Units: **µg/L** Analysis Date: **05/16/18 05:19 PM**

Client ID: **W-34** Run ID: **GC10_180516A** SeqNo: **5038184** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	39.56	0.21	5.0	36.1	0	110	70-130	0			
Ethene	35.33	0.41	5.0	33.7	3.8	93.6	70-130	0			
Methane	35.11	0.64	5.0	19.2	9.81	132	70-130	0			S

MSD Sample ID: **1805786-23B MSD** Units: **µg/L** Analysis Date: **05/16/18 05:22 PM**

Client ID: **W-34** Run ID: **GC10_180516A** SeqNo: **5038185** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	45.56	0.21	5.0	36.1	0	126	70-130	39.56	14.1	30	
Ethene	38.97	0.41	5.0	33.7	3.8	104	70-130	35.33	9.8	30	
Methane	26.47	0.64	5.0	19.2	9.81	86.8	70-130	35.11	28.1	30	

The following samples were analyzed in this batch: 1805786-22B 1805786-23B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **118419** Instrument ID **ICPMS3** Method: **SW6020A**

MBLK Sample ID: **MBLK-118419-118419** Units: **mg/L** Analysis Date: **05/16/18 01:31 PM**
Client ID: Run ID: **ICPMS3_180516A** SeqNo: **5036497** Prep Date: **05/16/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	U	0.015	0.080								
Manganese	U	0.00026	0.0050								

LCS Sample ID: **LCS-118419-118419** Units: **mg/L** Analysis Date: **05/16/18 01:32 PM**
Client ID: Run ID: **ICPMS3_180516A** SeqNo: **5036498** Prep Date: **05/16/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.3	0.015	0.080	10	0	103	80-120	0			
Manganese	0.101	0.00026	0.0050	0.1	0	101	80-120	0			

MS Sample ID: **1805795-01AMS** Units: **mg/L** Analysis Date: **05/16/18 08:07 PM**
Client ID: Run ID: **ICPMS3_180516A** SeqNo: **5037547** Prep Date: **05/16/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.09	0.015	0.080	10	0.419	107	75-125	0			
Manganese	0.1196	0.00026	0.0050	0.1	0.01354	106	75-125	0			

MSD Sample ID: **1805795-01AMSD** Units: **mg/L** Analysis Date: **05/16/18 08:08 PM**
Client ID: Run ID: **ICPMS3_180516A** SeqNo: **5037548** Prep Date: **05/16/18** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.13	0.015	0.080	10	0.419	107	75-125	11.09	0.373	20	
Manganese	0.1199	0.00026	0.0050	0.1	0.01354	106	75-125	0.1196	0.273	20	

The following samples were analyzed in this batch: 1805786-22C 1805786-23C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236039** Units: **µg/L** Analysis Date: **05/16/18 11:26 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094529** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.54*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.15*	0	0	*20*	0	*90.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.97*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*20.12*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCS1-180615-R236039** Units: **µg/L** Analysis Date: **06/15/18 04:03 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094527** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.64	0.22	0.74	20	0	103	73-114	0			
1,1,1-Trichloroethane	19.97	0.36	1.2	20	0	99.8	75-130	0			
1,1,2,2-Tetrachloroethane	16.7	0.19	0.62	20	0	83.5	75-130	0			
1,1,2-Trichloroethane	19.22	0.4	1.3	20	0	96.1	75-125	0			
1,1-Dichloroethane	14.95	0.31	1.0	20	0	74.8	75-133	0			S
1,1-Dichloroethene	20.52	0.28	0.92	20	0	103	70-145	0			
1,1-Dichloropropene	18.93	0.35	1.2	20	0	94.6	75-135	0			
1,2,3-Trichlorobenzene	20.73	0.17	0.55	20	0	104	70-140	0			
1,2,3-Trichloropropane	16.04	0.11	0.40	20	0	80.2	75-125	0			
1,2,4-Trichlorobenzene	20.42	0.21	0.71	20	0	102	70-135	0			
1,2,4-Trimethylbenzene	16.98	0.37	1.2	20	0	84.9	75-130	0			
1,2-Dibromo-3-chloropropane	19.37	0.97	3.2	20	0	96.8	60-130	0			
1,2-Dibromoethane	20.77	0.98	3.3	20	0	104	90-195	0			
1,2-Dichlorobenzene	18.94	0.22	0.73	20	0	94.7	70-130	0			
1,2-Dichloroethane	17.64	0.17	0.55	20	0	88.2	78-125	0			
1,2-Dichloropropane	18.38	0.25	0.83	20	0	91.9	75-125	0			
1,3,5-Trimethylbenzene	16.98	0.29	0.95	20	0	84.9	75-130	0			
1,3-Dichlorobenzene	19.25	0.29	0.96	20	0	96.2	75-130	0			
1,3-Dichloropropane	19.94	0.18	0.61	20	0	99.7	75-125	0			
1,4-Dichlorobenzene	19.91	0.21	0.71	20	0	99.6	75-130	0			
2,2-Dichloropropane	18.39	0.44	1.5	20	0	92	43-150	0			
2-Butanone	20.87	0.58	2.0	20	0	104	55-150	0			
2-Chlorotoluene	15.3	0.32	1.1	20	0	76.5	84-133	0			S
4-Chlorotoluene	15.76	0.28	0.95	20	0	78.8	80-125	0			S
4-Methyl-2-pentanone	28.45	0.11	0.40	20	0	142	77-178	0			
Acetone	19.17	0.92	3.1	20	0	95.8	60-160	0			
Benzene	18.21	0.3	1.0	20	0	91	85-125	0			
Bromobenzene	16.22	0.24	0.80	20	0	81.1	80-125	0			
Bromochloromethane	19.42	0.2	0.66	20	0	97.1	72-141	0			
Bromodichloromethane	19.83	0.23	0.78	20	0	99.2	75-125	0			
Bromoform	20.36	0.77	2.6	20	0	102	60-125	0			
Bromomethane	17.25	0.38	1.3	20	0	86.2	30-185	0			
Carbon tetrachloride	18.42	0.31	1.0	20	0	92.1	65-140	0			
Chlorobenzene	19.67	0.27	0.90	20	0	98.4	80-120	0			
Chloroethane	16.85	0.29	0.97	20	0	84.2	50-140	0			
Chloroform	19.03	0.26	0.86	20	0	95.2	80-130	0			
Chloromethane	13.93	0.17	0.57	20	0	69.6	46-148	0			
cis-1,2-Dichloroethene	19.2	0.25	0.85	20	0	96	75-134	0			
cis-1,3-Dichloropropene	19.17	0.39	1.3	20	0	95.8	70-130	0			
Dibromochloromethane	19.75	0.38	1.2	20	0	98.8	60-115	0			
Dibromomethane	20.07	0.25	0.83	20	0	100	85-125	0			
Dichlorodifluoromethane	14.64	0.13	0.44	20	0	73.2	20-120	0			
Ethylbenzene	19.61	0.4	1.3	20	0	98	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039**	Instrument ID **VMS9**			Method: **SW8260C**					
Hexachlorobutadiene	20.48	0.24	0.80	20	0	102	70-155	0	
Isopropylbenzene	18.31	0.31	1.0	20	0	91.6	80-127	0	
m,p-Xylene	39.47	0.98	3.3	40	0	98.7	75-130	0	
Methyl tert-butyl ether	22.96	0.12	0.40	20	0	115	80-130	0	
Methylene chloride	18.9	0.56	1.8	20	0	94.5	75-140	0	
Naphthalene	20.71	0.18	0.59	20	0	104	55-160	0	
n-Butylbenzene	17.76	0.22	0.73	20	0	88.8	75-145	0	
n-Propylbenzene	15.62	0.24	0.81	20	0	78.1	83-135	0	S
o-Xylene	19.11	0.35	1.2	20	0	95.6	80-125	0	
p-Isopropyltoluene	17.73	0.14	0.48	20	0	88.6	61-164	0	
sec-Butylbenzene	16.13	0.29	0.98	20	0	80.6	80-134	0	
Styrene	19.31	0.24	0.79	20	0	96.6	83-137	0	
tert-Butylbenzene	16.78	0.34	1.2	20	0	83.9	70-130	0	
Tetrachloroethene	18.92	0.27	0.91	20	0	94.6	68-166	0	
Toluene	11.84	0.37	1.2	20	0	59.2	76-125	0	S
trans-1,2-Dichloroethene	19.74	0.28	0.93	20	0	98.7	80-140	0	
trans-1,3-Dichloropropene	19.1	0.82	2.7	20	0	95.5	56-132	0	
Trichloroethene	19.03	0.3	0.99	20	0	95.2	84-130	0	
Trichlorofluoromethane	15.84	0.2	0.66	20	0	79.2	60-140	0	
Vinyl chloride	18.09	0.2	0.68	20	0	90.4	50-136	0	
Xylenes, Total	58.58	1.3	4.4	60	0	97.6	80-126	0	
Surr: 1,2-Dichloroethane-d4	*18.8*	0	0	*20*	0	*94*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*16.14*	0	0	*20*	0	*80.7*	*80-110*	0	
Surr: Dibromofluoromethane	*20.25*	0	0	*20*	0	*101*	*85-115*	0	
Surr: Toluene-d8	*19.49*	0	0	*20*	0	*97.4*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236039** Units: **µg/L** Analysis Date: **05/16/18 10:13 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094528** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.76	0.22	0.74	20	0	104	73-114	0			
1,1,1-Trichloroethane	23.07	0.36	1.2	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	21.2	0.19	0.62	20	0	106	75-130	0			
1,1,2-Trichloroethane	20.92	0.4	1.3	20	0	105	75-125	0			
1,1-Dichloroethane	23.2	0.31	1.0	20	0	116	75-133	0			
1,1-Dichloroethene	22.76	0.28	0.92	20	0	114	70-145	0			
1,1-Dichloropropene	21.06	0.35	1.2	20	0	105	75-135	0			
1,2,3-Trichlorobenzene	19.96	0.17	0.55	20	0	99.8	70-140	0			
1,2,3-Trichloropropane	19.98	0.11	0.40	20	0	99.9	75-125	0			
1,2,4-Trichlorobenzene	19.56	0.21	0.71	20	0	97.8	70-135	0			
1,2,4-Trimethylbenzene	23.31	0.37	1.2	20	0	117	75-130	0			
1,2-Dibromo-3-chloropropane	18.88	0.97	3.2	20	0	94.4	60-130	0			
1,2-Dibromoethane	25.28	0.98	3.3	20	0	126	90-195	0			
1,2-Dichlorobenzene	20.04	0.22	0.73	20	0	100	70-130	0			
1,2-Dichloroethane	22.93	0.17	0.55	20	0	115	78-125	0			
1,2-Dichloropropane	23.44	0.25	0.83	20	0	117	75-125	0			
1,3,5-Trimethylbenzene	23.97	0.29	0.95	20	0	120	75-130	0			
1,3-Dichlorobenzene	20.49	0.29	0.96	20	0	102	75-130	0			
1,3-Dichloropropane	21.59	0.18	0.61	20	0	108	75-125	0			
1,4-Dichlorobenzene	20.32	0.21	0.71	20	0	102	75-130	0			
2,2-Dichloropropane	21.31	0.44	1.5	20	0	107	43-150	0			
2-Butanone	21.99	0.58	2.0	20	0	110	55-150	0			
2-Chlorotoluene	23.25	0.32	1.1	20	0	116	84-133	0			
4-Chlorotoluene	23.15	0.28	0.95	20	0	116	80-125	0			
4-Methyl-2-pentanone	28.23	0.11	0.40	20	0	141	77-178	0			
Acetone	22.27	0.92	3.1	20	0	111	60-160	0			
Benzene	21.83	0.3	1.0	20	0	109	85-125	0			
Bromobenzene	21.38	0.24	0.80	20	0	107	80-125	0			
Bromochloromethane	22.08	0.2	0.66	20	0	110	72-141	0			
Bromodichloromethane	20.8	0.23	0.78	20	0	104	75-125	0			
Bromoform	18.39	0.77	2.6	20	0	92	60-125	0			
Bromomethane	19.64	0.38	1.3	20	0	98.2	30-185	0			
Carbon tetrachloride	21.62	0.31	1.0	20	0	108	65-140	0			
Chlorobenzene	20.71	0.27	0.90	20	0	104	80-120	0			
Chloroethane	20.93	0.29	0.97	20	0	105	50-140	0			
Chloroform	21.8	0.26	0.86	20	0	109	80-130	0			
Chloromethane	17.82	0.17	0.57	20	0	89.1	46-148	0			
cis-1,2-Dichloroethene	23.81	0.25	0.85	20	0	119	75-134	0			
cis-1,3-Dichloropropene	22.76	0.39	1.3	20	0	114	70-130	0			
Dibromochloromethane	17.97	0.38	1.2	20	0	89.8	60-115	0			
Dibromomethane	21.56	0.25	0.83	20	0	108	85-125	0			
Dichlorodifluoromethane	11.6	0.13	0.44	20	0	58	20-120	0			
Ethylbenzene	22.32	0.4	1.3	20	0	112	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	20.37	0.24	0.80	20	0	102	70-155	0
Isopropylbenzene	23.85	0.31	1.0	20	0	119	80-127	0
m,p-Xylene	47.6	0.98	3.3	40	0	119	75-130	0
Methyl tert-butyl ether	25.18	0.12	0.40	20	0	126	80-130	0
Methylene chloride	21.4	0.56	1.8	20	0	107	75-140	0
Naphthalene	19.96	0.18	0.59	20	0	99.8	55-160	0
n-Butylbenzene	21.57	0.22	0.73	20	0	108	75-145	0
n-Propylbenzene	22.94	0.24	0.81	20	0	115	83-135	0
o-Xylene	23.7	0.35	1.2	20	0	118	80-125	0
p-Isopropyltoluene	22.61	0.14	0.48	20	0	113	61-164	0
sec-Butylbenzene	23.76	0.29	0.98	20	0	119	80-134	0
Styrene	25.07	0.24	0.79	20	0	125	83-137	0
tert-Butylbenzene	23.15	0.34	1.2	20	0	116	70-130	0
Tetrachloroethene	20.33	0.27	0.91	20	0	102	68-166	0
Toluene	21	0.37	1.2	20	0	105	76-125	0
trans-1,2-Dichloroethene	22.52	0.28	0.93	20	0	113	80-140	0
trans-1,3-Dichloropropene	21.61	0.82	2.7	20	0	108	56-132	0
Trichloroethene	22.64	0.3	0.99	20	0	113	84-130	0
Trichlorofluoromethane	18.86	0.2	0.66	20	0	94.3	60-140	0
Vinyl chloride	17.22	0.2	0.68	20	0	86.1	50-136	0
Xylenes, Total	71.3	1.3	4.4	60	0	119	80-126	0
Surr: 1,2-Dichloroethane-d4	*20.88*	0	0	*20*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*21.67*	0	0	*20*	0	*108*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.82*	0	0	*20*	0	*99.1*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/17/18 08:22 AM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094548** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	209.5	2.2	7.4	200	0	105	73-114	0			
1,1,1-Trichloroethane	2906	3.6	12	200	2807	49.6	75-130	0			SEO
1,1,2,2-Tetrachloroethane	193.9	1.9	6.2	200	0	97	75-130	0			
1,1,2-Trichloroethane	403.4	4	13	200	184.9	109	75-125	0			
1,1-Dichloroethane	1965	3.1	10	200	1374	296	75-133	0			SEO
1,1-Dichloroethene	604.7	2.8	9.2	200	245.1	180	70-145	0			S
1,1-Dichloropropene	257.1	3.5	12	200	0	129	75-135	0			
1,2,3-Trichlorobenzene	183.3	1.7	5.5	200	0	91.6	70-140	0			
1,2,3-Trichloropropane	175.3	1.1	4.0	200	0	87.6	75-125	0			
1,2,4-Trichlorobenzene	181.1	2.1	7.1	200	0	90.6	70-135	0			
1,2,4-Trimethylbenzene	552.5	3.7	12	200	275.6	138	75-130	0			S
1,2-Dibromo-3-chloropropane	182.5	9.7	32	200	0	91.2	60-130	0			
1,2-Dibromoethane	259	9.8	33	200	0	130	90-195	0			
1,2-Dichlorobenzene	196.2	2.2	7.3	200	7.4	94.4	70-130	0			
1,2-Dichloroethane	477.1	1.7	5.5	200	208.9	134	78-125	0			S
1,2-Dichloropropane	350.3	2.5	8.3	200	92.4	129	75-125	0			S
1,3,5-Trimethylbenzene	342	2.9	9.5	200	81.9	130	75-130	0			S
1,3-Dichlorobenzene	195.6	2.9	9.6	200	0	97.8	75-130	0			
1,3-Dichloropropane	219.1	1.8	6.1	200	0	110	75-125	0			
1,4-Dichlorobenzene	194.9	2.1	7.1	200	0	97.4	75-130	0			
2,2-Dichloropropane	217.3	4.4	15	200	0	109	43-150	0			
2-Butanone	18500	5.8	20	200	14520	1990	55-150	0			SEO
2-Chlorotoluene	232.9	3.2	11	200	0	116	84-133	0			
4-Chlorotoluene	238	2.8	9.5	200	0	119	80-125	0			
4-Methyl-2-pentanone	8582	1.1	4.0	200	7826	378	77-178	0			SEO
Acetone	80990	9.2	31	200	61690	9650	60-160	0			SEO
Benzene	355.7	3	10	200	96.6	130	85-125	0			S
Bromobenzene	204	2.4	8.0	200	0	102	80-125	0			
Bromochloromethane	246.9	2	6.6	200	0	123	72-141	0			
Bromodichloromethane	231.2	2.3	7.8	200	0	116	75-125	0			
Bromoform	188.1	7.7	26	200	0	94	60-125	0			
Bromomethane	705.4	3.8	13	200	0	353	30-185	0			S
Carbon tetrachloride	244.1	3.1	10	200	0	122	65-140	0			
Chlorobenzene	210.6	2.7	9.0	200	0	105	80-120	0			
Chloroethane	512.3	2.9	9.7	200	262.1	125	50-140	0			
Chloroform	312.8	2.6	8.6	200	55.9	128	80-130	0			
Chloromethane	207.4	1.7	5.7	200	0	104	46-148	0			
cis-1,2-Dichloroethene	10960	2.5	8.5	200	8487	1230	75-134	0			SEO
cis-1,3-Dichloropropene	237.9	3.9	13	200	0	119	70-130	0			
Dibromochloromethane	195.8	3.8	12	200	0	97.9	60-115	0			
Dibromomethane	239.8	2.5	8.3	200	0	120	85-125	0			
Dichlorodifluoromethane	181	1.3	4.4	200	0	90.5	20-120	0			
Ethylbenzene	4712	4	13	200	4225	244	76-123	0			SEO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039**	Instrument ID **VMS9**			Method: **SW8260C**					
Hexachlorobutadiene	186.9	2.4	8.0	200	0	93.4	70-155	0	
Isopropylbenzene	284.2	3.1	10	200	37	124	80-127	0	
m,p-Xylene	13400	9.8	33	400	12270	283	75-130	0	SEO
Methyl tert-butyl ether	265.9	1.2	4.0	200	6.1	130	80-130	0	
Methylene chloride	2487	5.6	18	200	1778	354	75-140	0	SEO
Naphthalene	211.9	1.8	5.9	200	26.5	92.7	55-160	0	
n-Butylbenzene	217.1	2.2	7.3	200	5.3	106	75-145	0	
n-Propylbenzene	276.9	2.4	8.1	200	41.3	118	83-135	0	
o-Xylene	4462	3.5	12	200	3986	238	80-125	0	SEO
p-Isopropyltoluene	221.5	1.4	4.8	200	2.2	110	61-164	0	
sec-Butylbenzene	246.2	2.9	9.8	200	0	123	80-134	0	
Styrene	292.3	2.4	7.9	200	33.5	129	83-137	0	
tert-Butylbenzene	237.7	3.4	12	200	0	119	70-130	0	
Tetrachloroethene	360.6	2.7	9.1	200	189.2	85.7	68-166	0	
Toluene	U	3.7	12	200	22440	-1E+04	76-125	0	SO
trans-1,2-Dichloroethene	286	2.8	9.3	200	16	135	80-140	0	
trans-1,3-Dichloropropene	222.9	8.2	27	200	0	111	56-132	0	
Trichloroethene	633.9	3	9.9	200	487.9	73	84-130	0	S
Trichlorofluoromethane	255.3	2	6.6	200	0	128	60-140	0	
Vinyl chloride	941.2	2	6.8	200	541.1	200	50-136	0	S
Xylenes, Total	17860	13	44	600	16260	268	80-126	0	SEO
Surr: 1,2-Dichloroethane-d4	*230.6*	0	0	*200*	0	*115*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*208.7*	0	0	*200*	0	*104*	*80-110*	0	
Surr: Dibromofluoromethane	*206.5*	0	0	*200*	0	*103*	*85-115*	0	
Surr: Toluene-d8	*230.6*	0	0	*200*	0	*115*	*85-110*	0	*S*

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/17/18 08:47 AM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5094549** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	197.3	2.2	7.4	200	0	98.6	73-114	209.5	6	30	
1,1,1-Trichloroethane	3337	3.6	12	200	2807	265	75-130	2906	13.8	30	SEO
1,1,2,2-Tetrachloroethane	191.3	1.9	6.2	200	0	95.6	75-130	193.9	1.35	30	
1,1,2-Trichloroethane	383.4	4	13	200	184.9	99.2	75-125	403.4	5.08	30	
1,1-Dichloroethane	1758	3.1	10	200	1374	192	75-133	1965	11.1	30	SEO
1,1-Dichloroethene	538.1	2.8	9.2	200	245.1	146	70-145	604.7	11.7	30	S
1,1-Dichloropropene	258.7	3.5	12	200	0	129	75-135	257.1	0.62	30	
1,2,3-Trichlorobenzene	183.1	1.7	5.5	200	0	91.6	70-140	183.3	0.109	30	
1,2,3-Trichloropropane	177	1.1	4.0	200	0	88.5	75-125	175.3	0.965	30	
1,2,4-Trichlorobenzene	183.6	2.1	7.1	200	0	91.8	70-135	181.1	1.37	30	
1,2,4-Trimethylbenzene	557.1	3.7	12	200	275.6	141	75-130	552.5	0.829	30	S
1,2-Dibromo-3-chloropropane	176.8	9.7	32	200	0	88.4	60-130	182.5	3.17	30	
1,2-Dibromoethane	244.4	9.8	33	200	0	122	90-195	259	5.8	30	
1,2-Dichlorobenzene	199.6	2.2	7.3	200	7.4	96.1	70-130	196.2	1.72	30	
1,2-Dichloroethane	503.5	1.7	5.5	200	208.9	147	78-125	477.1	5.38	30	S
1,2-Dichloropropane	366.5	2.5	8.3	200	92.4	137	75-125	350.3	4.52	30	S
1,3,5-Trimethylbenzene	345	2.9	9.5	200	81.9	132	75-130	342	0.873	30	S
1,3-Dichlorobenzene	196.6	2.9	9.6	200	0	98.3	75-130	195.6	0.51	30	
1,3-Dichloropropane	212.3	1.8	6.1	200	0	106	75-125	219.1	3.15	30	
1,4-Dichlorobenzene	196.6	2.1	7.1	200	0	98.3	75-130	194.9	0.868	30	
2,2-Dichloropropane	199.2	4.4	15	200	0	99.6	43-150	217.3	8.69	30	
2-Butanone	17160	5.8	20	200	14520	1320	55-150	18500	7.5	30	SEO
2-Chlorotoluene	235.6	3.2	11	200	0	118	84-133	232.9	1.15	30	
4-Chlorotoluene	241.1	2.8	9.5	200	0	121	80-125	238	1.29	30	
4-Methyl-2-pentanone	8763	1.1	4.0	200	7826	468	77-178	8582	2.08	30	SEO
Acetone	67730	9.2	31	200	61690	3020	60-160	80990	17.8	30	SEO
Benzene	346.4	3	10	200	96.6	125	85-125	355.7	2.65	30	
Bromobenzene	204.9	2.4	8.0	200	0	102	80-125	204	0.44	30	
Bromochloromethane	224.2	2	6.6	200	0	112	72-141	246.9	9.64	30	
Bromodichloromethane	249	2.3	7.8	200	0	124	75-125	231.2	7.41	30	
Bromoform	174	7.7	26	200	0	87	60-125	188.1	7.79	30	
Bromomethane	814.8	3.8	13	200	0	407	30-185	705.4	14.4	30	S
Carbon tetrachloride	288.5	3.1	10	200	0	144	65-140	244.1	16.7	30	S
Chlorobenzene	215.7	2.7	9.0	200	0	108	80-120	210.6	2.39	30	
Chloroethane	452.4	2.9	9.7	200	262.1	95.2	50-140	512.3	12.4	30	
Chloroform	302.6	2.6	8.6	200	55.9	123	80-130	312.8	3.31	30	
Chloromethane	183.8	1.7	5.7	200	0	91.9	46-148	207.4	12.1	30	
cis-1,2-Dichloroethene	9820	2.5	8.5	200	8487	667	75-134	10960	10.9	30	SEO
cis-1,3-Dichloropropene	248.6	3.9	13	200	0	124	70-130	237.9	4.4	30	
Dibromochloromethane	183.5	3.8	12	200	0	91.8	60-115	195.8	6.49	30	
Dibromomethane	253.7	2.5	8.3	200	0	127	85-125	239.8	5.63	30	S
Dichlorodifluoromethane	153.5	1.3	4.4	200	0	76.8	20-120	181	16.4	30	
Ethylbenzene	4797	4	13	200	4225	286	76-123	4712	1.78	30	SEO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039** Instrument ID **VMS9** Method: **SW8260C**

Hexachlorobutadiene	190.2	2.4	8.0	200	0	95.1	70-155	186.9	1.75	30	
Isopropylbenzene	288.1	3.1	10	200	37	126	80-127	284.2	1.36	30	
m,p-Xylene	13590	9.8	33	400	12270	330	75-130	13400	1.41	30	SEO
Methyl tert-butyl ether	241.9	1.2	4.0	200	6.1	118	80-130	265.9	9.45	30	
Methylene chloride	2226	5.6	18	200	1778	224	75-140	2487	11.1	30	SEO
Naphthalene	214.6	1.8	5.9	200	26.5	94	55-160	211.9	1.27	30	
n-Butylbenzene	227.1	2.2	7.3	200	5.3	111	75-145	217.1	4.5	30	
n-Propylbenzene	283	2.4	8.1	200	41.3	121	83-135	276.9	2.18	30	
o-Xylene	4519	3.5	12	200	3986	267	80-125	4462	1.28	30	SEO
p-Isopropyltoluene	229.9	1.4	4.8	200	2.2	114	61-164	221.5	3.72	30	
sec-Butylbenzene	257.7	2.9	9.8	200	0	129	80-134	246.2	4.56	30	
Styrene	301.8	2.4	7.9	200	33.5	134	83-137	292.3	3.2	30	
tert-Butylbenzene	246.5	3.4	12	200	0	123	70-130	237.7	3.63	30	
Tetrachloroethene	354.7	2.7	9.1	200	189.2	82.8	68-166	360.6	1.65	30	
Toluene	U	3.7	12	200	22440	-1E+04	76-125	0	0	30	SO
trans-1,2-Dichloroethene	256.4	2.8	9.3	200	16	120	80-140	286	10.9	30	
trans-1,3-Dichloropropene	205.1	8.2	27	200	0	103	56-132	222.9	8.32	30	
Trichloroethene	624.2	3	9.9	200	487.9	68.2	84-130	633.9	1.54	30	S
Trichlorofluoromethane	213.4	2	6.6	200	0	107	60-140	255.3	17.9	30	
Vinyl chloride	812.9	2	6.8	200	541.1	136	50-136	941.2	14.6	30	
Xylenes, Total	18110	13	44	600	16260	309	80-126	17860	1.37	30	SEO
Surr: 1,2-Dichloroethane-d4	*243*	0	0	*200*	0	*122*	*75-120*	230.6	*5.24*	*30*	*S*
Surr: 4-Bromofluorobenzene	*215.7*	0	0	*200*	0	*108*	*80-110*	208.7	*3.3*	*30*	
Surr: Dibromofluoromethane	*257.8*	0	0	*200*	0	*129*	*85-115*	206.5	*22.1*	*30*	*S*
Surr: Toluene-d8	*229.5*	0	0	*200*	0	*115*	*85-110*	230.6	*0.478*	*30*	*S*

The following samples were analyzed in this batch:

1805786-01A	1805786-02A	1805786-03A
1805786-04A	1805786-05A	1805786-06A
1805786-07A	1805786-08A	1805786-09A
1805786-10A	1805786-11A	1805786-12A

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236039a** Units: **µg/L** Analysis Date: **05/16/18 11:26 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5038782** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*20.54*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.15*	0	0	*20*	0	*90.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.97*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*20.12*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236039a** Units: **µg/L** Analysis Date: **05/16/18 10:13 PM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5038781** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23.07	0.33	1.0	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	21.2	0.17	1.0	20	0	106	75-130	0			
1,1,2-Trichloroethane	20.92	0.22	1.0	20	0	105	75-125	0			
1,1-Dichloroethane	23.2	0.48	1.0	20	0	116	68-142	0			
1,1-Dichloroethene	22.76	0.36	1.0	20	0	114	70-145	0			
1,2,3-Trichlorobenzene	19.96	0.29	1.0	20	0	99.8	70-140	0			
1,2,4-Trichlorobenzene	19.56	0.25	1.0	20	0	97.8	70-135	0			
1,2-Dibromo-3-chloropropane	18.88	0.43	1.0	20	0	94.4	60-130	0			
1,2-Dibromoethane	25.28	0.17	1.0	20	0	126	67-155	0			
1,2-Dichlorobenzene	20.04	0.12	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	22.93	0.11	1.0	20	0	115	78-125	0			
1,2-Dichloropropane	23.44	0.34	1.0	20	0	117	75-125	0			
1,3-Dichlorobenzene	20.49	0.13	1.0	20	0	102	75-130	0			
1,4-Dichlorobenzene	20.32	0.13	1.0	20	0	102	75-130	0			
2-Butanone	21.99	0.47	5.0	20	0	110	55-150	0			
2-Hexanone	20.68	0.5	5.0	20	0	103	60-135	0			
4-Methyl-2-pentanone	28.23	0.52	1.0	20	0	141	77-178	0			
Acetone	22.27	0.47	10	20	0	111	60-160	0			
Benzene	21.83	0.42	1.0	20	0	109	85-125	0			
Bromochloromethane	22.08	0.15	1.0	20	0	110	72-141	0			
Bromodichloromethane	20.8	0.22	1.0	20	0	104	75-125	0			
Bromoform	18.39	0.56	1.0	20	0	92	60-125	0			
Bromomethane	19.64	0.29	1.0	20	0	98.2	30-185	0			
Carbon disulfide	20.29	0.39	1.0	20	0	101	60-165	0			
Carbon tetrachloride	21.62	0.32	1.0	20	0	108	65-140	0			
Chlorobenzene	20.71	0.21	1.0	20	0	104	80-120	0			
Chloroethane	20.93	0.68	1.0	20	0	105	50-140	0			
Chloroform	21.8	0.46	1.0	20	0	109	80-130	0			
Chloromethane	17.82	0.68	1.0	20	0	89.1	46-148	0			
cis-1,2-Dichloroethene	23.81	0.38	1.0	20	0	119	75-134	0			
cis-1,3-Dichloropropene	22.76	0.13	1.0	20	0	114	70-130	0			
Dibromochloromethane	17.97	0.2	1.0	20	0	89.8	60-115	0			
Dichlorodifluoromethane	11.6	0.3	1.0	20	0	58	20-120	0			
Ethylbenzene	22.32	0.29	1.0	20	0	112	76-123	0			
Isopropylbenzene	23.85	0.17	1.0	20	0	119	80-127	0			
m,p-Xylene	47.6	0.53	2.0	40	0	119	75-130	0			
Methyl tert-butyl ether	25.18	0.21	1.0	20	0	126	68-129	0			
Methylene chloride	21.4	0.16	5.0	20	0	107	75-140	0			
o-Xylene	23.7	0.19	1.0	20	0	118	76-127	0			
Styrene	25.07	0.19	1.0	20	0	125	83-137	0			
Tetrachloroethene	20.33	0.28	1.0	20	0	102	68-166	0			
Toluene	21	0.32	1.0	20	0	105	76-125	0			
trans-1,2-Dichloroethene	22.52	0.48	1.0	20	0	113	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039a**	Instrument ID **VMS9**			Method: **SW8260C**				
trans-1,3-Dichloropropene	21.61	0.15	1.0	20	0	108	56-132	0
Trichloroethene	22.64	0.33	1.0	20	0	113	84-130	0
Trichlorofluoromethane	18.86	0.24	1.0	20	0	94.3	60-140	0
Vinyl chloride	17.22	0.53	1.0	20	0	86.1	50-136	0
Surr: 1,2-Dichloroethane-d4	*20.88*	0	0	*20*	0	*104*	*75-120*	0
Surr: 4-Bromofluorobenzene	*21.67*	0	0	*20*	0	*108*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.82*	0	0	*20*	0	*99.1*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/17/18 08:22 AM**
Client ID: Run ID: **VMS9_180516B** SeqNo: **5038801** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2906	3.3	10	200	2807	49.6	75-130	0			SEO
1,1,2,2-Tetrachloroethane	193.9	1.7	10	200	0	97	75-130	0			
1,1,2-Trichloroethane	403.4	2.2	10	200	184.9	109	75-125	0			
1,1-Dichloroethane	1965	4.8	10	200	1374	296	68-142	0			SEO
1,1-Dichloroethene	604.7	3.6	10	200	245.1	180	70-145	0			S
1,2,3-Trichlorobenzene	183.3	2.9	10	200	0	91.6	70-140	0			
1,2,4-Trichlorobenzene	181.1	2.5	10	200	0	90.6	70-135	0			
1,2-Dibromo-3-chloropropane	182.5	4.3	10	200	0	91.2	60-130	0			
1,2-Dibromoethane	259	1.7	10	200	0	130	67-155	0			
1,2-Dichlorobenzene	196.2	1.2	10	200	7.4	94.4	70-130	0			
1,2-Dichloroethane	477.1	1.1	10	200	208.9	134	78-125	0			S
1,2-Dichloropropane	350.3	3.4	10	200	92.4	129	75-125	0			S
1,3-Dichlorobenzene	195.6	1.3	10	200	0	97.8	75-130	0			
1,4-Dichlorobenzene	194.9	1.3	10	200	0	97.4	75-130	0			
2-Butanone	18500	4.7	50	200	14520	1990	55-150	0			SEO
2-Hexanone	209.6	5	50	200	25.9	91.8	60-135	0			
4-Methyl-2-pentanone	8582	5.2	10	200	7826	378	77-178	0			SEO
Acetone	80990	4.7	100	200	61690	9650	60-160	0			SEO
Benzene	355.7	4.2	10	200	96.6	130	85-125	0			S
Bromochloromethane	246.9	1.5	10	200	0	123	72-141	0			
Bromodichloromethane	231.2	2.2	10	200	0	116	75-125	0			
Bromoform	188.1	5.6	10	200	0	94	60-125	0			
Bromomethane	705.4	2.9	10	200	0	353	30-185	0			S
Carbon disulfide	296.9	3.9	10	200	0	148	60-165	0			
Carbon tetrachloride	244.1	3.2	10	200	0	122	65-140	0			
Chlorobenzene	210.6	2.1	10	200	0	105	80-120	0			
Chloroethane	512.3	6.8	10	200	262.1	125	50-140	0			
Chloroform	312.8	4.6	10	200	55.9	128	80-130	0			
Chloromethane	207.4	6.8	10	200	0	104	46-148	0			
cis-1,2-Dichloroethene	10960	3.8	10	200	8487	1230	75-134	0			SEO
cis-1,3-Dichloropropene	237.9	1.3	10	200	0	119	70-130	0			
Dibromochloromethane	195.8	2	10	200	0	97.9	60-115	0			
Dichlorodifluoromethane	181	3	10	200	0	90.5	20-120	0			
Ethylbenzene	4712	2.9	10	200	4225	244	76-123	0			SEO
Isopropylbenzene	284.2	1.7	10	200	37	124	80-127	0			
m,p-Xylene	13400	5.3	20	400	12270	283	75-130	0			SEO
Methyl tert-butyl ether	265.9	2.1	10	200	6.1	130	68-129	0			S
Methylene chloride	2487	1.6	50	200	1778	354	75-140	0			SEO
o-Xylene	4462	1.9	10	200	3986	238	76-127	0			SEO
Styrene	292.3	1.9	10	200	33.5	129	83-137	0			
Tetrachloroethene	360.6	2.8	10	200	189.2	85.7	68-166	0			
Toluene	U	3.2	10	200	22440	-1E+04	76-125	0			SO
trans-1,2-Dichloroethene	286	4.8	10	200	16	135	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

trans-1,3-Dichloropropene	222.9	1.5	10	200	0	111	56-132	0	
Trichloroethene	633.9	3.3	10	200	487.9	73	84-130	0	S
Trichlorofluoromethane	255.3	2.4	10	200	0	128	60-140	0	
Vinyl chloride	941.2	5.3	10	200	541.1	200	50-136	0	S
Surr: 1,2-Dichloroethane-d4	*230.6*	0	0	*200*	0	*115*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*208.7*	0	0	*200*	0	*104*	*80-110*	0	
Surr: Dibromofluoromethane	*206.5*	0	0	*200*	0	*103*	*85-115*	0	
Surr: Toluene-d8	*230.6*	0	0	*200*	0	*115*	*85-110*	0	*S*

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/17/18 08:47 AM**

Client ID: Run ID: **VMS9_180516B** SeqNo: **5038802** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	3337	3.3	10	200	2807	265	75-130	2906	13.8	30	SEO
1,1,2,2-Tetrachloroethane	191.3	1.7	10	200	0	95.6	75-130	193.9	1.35	30	
1,1,2-Trichloroethane	383.4	2.2	10	200	184.9	99.2	75-125	403.4	5.08	30	
1,1-Dichloroethane	1758	4.8	10	200	1374	192	68-142	1965	11.1	30	SEO
1,1-Dichloroethene	538.1	3.6	10	200	245.1	146	70-145	604.7	11.7	30	S
1,2,3-Trichlorobenzene	183.1	2.9	10	200	0	91.6	70-140	183.3	0.109	30	
1,2,4-Trichlorobenzene	183.6	2.5	10	200	0	91.8	70-135	181.1	1.37	30	
1,2-Dibromo-3-chloropropane	176.8	4.3	10	200	0	88.4	60-130	182.5	3.17	30	
1,2-Dibromoethane	244.4	1.7	10	200	0	122	67-155	259	5.8	30	
1,2-Dichlorobenzene	199.6	1.2	10	200	7.4	96.1	70-130	196.2	1.72	30	
1,2-Dichloroethane	503.5	1.1	10	200	208.9	147	78-125	477.1	5.38	30	S
1,2-Dichloropropane	366.5	3.4	10	200	92.4	137	75-125	350.3	4.52	30	S
1,3-Dichlorobenzene	196.6	1.3	10	200	0	98.3	75-130	195.6	0.51	30	
1,4-Dichlorobenzene	196.6	1.3	10	200	0	98.3	75-130	194.9	0.868	30	
2-Butanone	17160	4.7	50	200	14520	1320	55-150	18500	7.5	30	SEO
2-Hexanone	211	5	50	200	25.9	92.6	60-135	209.6	0.666	30	
4-Methyl-2-pentanone	8763	5.2	10	200	7826	468	77-178	8582	2.08	30	SEO
Acetone	67730	4.7	100	200	61690	3020	60-160	80990	17.8	30	SEO
Benzene	346.4	4.2	10	200	96.6	125	85-125	355.7	2.65	30	
Bromochloromethane	224.2	1.5	10	200	0	112	72-141	246.9	9.64	30	
Bromodichloromethane	249	2.2	10	200	0	124	75-125	231.2	7.41	30	
Bromoform	174	5.6	10	200	0	87	60-125	188.1	7.79	30	
Bromomethane	814.8	2.9	10	200	0	407	30-185	705.4	14.4	30	S
Carbon disulfide	259.8	3.9	10	200	0	130	60-165	296.9	13.3	30	
Carbon tetrachloride	288.5	3.2	10	200	0	144	65-140	244.1	16.7	30	S
Chlorobenzene	215.7	2.1	10	200	0	108	80-120	210.6	2.39	30	
Chloroethane	452.4	6.8	10	200	262.1	95.2	50-140	512.3	12.4	30	
Chloroform	302.6	4.6	10	200	55.9	123	80-130	312.8	3.31	30	
Chloromethane	183.8	6.8	10	200	0	91.9	46-148	207.4	12.1	30	
cis-1,2-Dichloroethene	9820	3.8	10	200	8487	667	75-134	10960	10.9	30	SEO
cis-1,3-Dichloropropene	248.6	1.3	10	200	0	124	70-130	237.9	4.4	30	
Dibromochloromethane	183.5	2	10	200	0	91.8	60-115	195.8	6.49	30	
Dichlorodifluoromethane	153.5	3	10	200	0	76.8	20-120	181	16.4	30	
Ethylbenzene	4797	2.9	10	200	4225	286	76-123	4712	1.78	30	SEO
Isopropylbenzene	288.1	1.7	10	200	37	126	80-127	284.2	1.36	30	
m,p-Xylene	13590	5.3	20	400	12270	330	75-130	13400	1.41	30	SEO
Methyl tert-butyl ether	241.9	2.1	10	200	6.1	118	68-129	265.9	9.45	30	
Methylene chloride	2226	1.6	50	200	1778	224	75-140	2487	11.1	30	SEO
o-Xylene	4519	1.9	10	200	3986	267	76-127	4462	1.28	30	SEO
Styrene	301.8	1.9	10	200	33.5	134	83-137	292.3	3.2	30	
Tetrachloroethene	354.7	2.8	10	200	189.2	82.8	68-166	360.6	1.65	30	
Toluene	U	3.2	10	200	22440	-1E+04	76-125	0	0	30	SO
trans-1,2-Dichloroethene	256.4	4.8	10	200	16	120	80-140	286	10.9	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236039a**	Instrument ID **VMS9**				Method: **SW8260C**						
trans-1,3-Dichloropropene	205.1	1.5	10	200	0	103	56-132	222.9	8.32	30	
Trichloroethene	624.2	3.3	10	200	487.9	68.2	84-130	633.9	1.54	30	S
Trichlorofluoromethane	213.4	2.4	10	200	0	107	60-140	255.3	17.9	30	
Vinyl chloride	812.9	5.3	10	200	541.1	136	50-136	941.2	14.6	30	
Surr: 1,2-Dichloroethane-d4	*243*	0	0	*200*	0	*122*	*75-120*	230.6	*5.24*	*30*	S
Surr: 4-Bromofluorobenzene	*215.7*	0	0	*200*	0	*108*	*80-110*	208.7	*3.3*	*30*	
Surr: Dibromofluoromethane	*257.8*	0	0	*200*	0	*129*	*85-115*	206.5	*22.1*	*30*	S
Surr: Toluene-d8	*229.5*	0	0	*200*	0	*115*	*85-110*	230.6	*0.478*	*30*	S

The following samples were analyzed in this batch:

1805786-01A	1805786-02A	1805786-03A
1805786-04A	1805786-05A	1805786-06A
1805786-07A	1805786-08A	1805786-09A
1805786-10A	1805786-11A	1805786-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **MBLK--R236041** Units: **µg/Kg-dry** Analysis Date: **05/17/18 01:26 AM**
Client ID: Run ID: **VMS10_180516B** SeqNo: **5038292** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	16	30								
1,1,1-Trichloroethane	U	14	30								
1,1,2,2-Tetrachloroethane	U	13	30								
1,1,2-Trichloroethane	U	13	30								
1,1-Dichloroethane	U	11	30								
1,1-Dichloroethene	U	9.7	30								
1,1-Dichloropropene	U	12	30								
1,2,3-Trichlorobenzene	U	14	30								
1,2,3-Trichloropropane	U	13	30								
1,2,4-Trichlorobenzene	U	10	30								
1,2,4-Trimethylbenzene	U	5.6	30								
1,2-Dibromo-3-chloropropane	U	28	100								
1,2-Dibromoethane	U	8.4	30								
1,2-Dichlorobenzene	U	11	30								
1,2-Dichloroethane	U	13	30								
1,2-Dichloropropane	U	5.2	30								
1,3,5-Trimethylbenzene	U	9.2	30								
1,3-Dichlorobenzene	U	10	30								
1,3-Dichloropropane	U	8.4	30								
1,4-Dichlorobenzene	U	7.2	30								
2,2-Dichloropropane	U	12	30								
2-Butanone	U	25	200								
2-Chlorotoluene	U	11	30								
4-Chlorotoluene	U	7.1	30								
4-Methyl-2-pentanone	U	14	30								
Acetone	U	31	100								
Benzene	U	5.1	30								
Bromobenzene	U	12	30								
Bromochloromethane	U	15	30								
Bromodichloromethane	U	17	30								
Bromoform	U	13	30								
Bromomethane	U	57	100								
Carbon tetrachloride	U	12	30								
Chlorobenzene	U	10	30								
Chloroethane	U	10	100								
Chloroform	U	11	30								
Chloromethane	U	25	100								
cis-1,2-Dichloroethene	U	9.4	30								
cis-1,3-Dichloropropene	U	11	30								
Dibromochloromethane	U	17	30								
Dibromomethane	U	9.8	30								
Dichlorodifluoromethane	U	6.3	30								
Diisopropyl ether	U	5.6	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Ethylbenzene	U	6.3	30					
Hexachlorobutadiene	U	27	100					
Isopropylbenzene	U	9.2	30					
m,p-Xylene	U	14	60					
Methyl tert-butyl ether	U	8.6	30					
Methylene chloride	U	13	30					
Naphthalene	U	8.3	100					
n-Butylbenzene	U	8.5	30					
n-Propylbenzene	U	9.7	30					
o-Xylene	U	12	30					
p-Isopropyltoluene	U	25	100					
sec-Butylbenzene	U	12	30					
Styrene	U	12	30					
tert-Butylbenzene	U	9.7	30					
Tetrachloroethene	U	8.7	30					
Toluene	U	8.2	30					
trans-1,2-Dichloroethene	U	11	30					
trans-1,3-Dichloropropene	U	17	30					
Trichloroethene	U	13	30					
Trichlorofluoromethane	U	15	30					
Vinyl chloride	U	6.4	30					
Xylenes, Total	U	26	90					
Surr: 1,2-Dichloroethane-d4	*19.7*	0	0	*20*	0	*98.5*	*70-130*	0
Surr: 4-Bromofluorobenzene	*19.92*	0	0	*20*	0	*99.6*	*70-130*	0
Surr: Dibromofluoromethane	*15.87*	0	0	*20*	0	*79.4*	*70-130*	0
Surr: Toluene-d8	*19.75*	0	0	*20*	0	*98.8*	*70-130*	0

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236041** Units: **µg/L** Analysis Date: **05/17/18 01:10 AM**

Client ID: Run ID: **VMS10_180516B** SeqNo: **5094552** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.69*	0	0	*20*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.2*	0	0	*20*	0	*96*	*80-110*	0
Surr: Dibromofluoromethane	*19*	0	0	*20*	0	*95*	*85-115*	0
Surr: Toluene-d8	*19.54*	0	0	*20*	0	*97.7*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **LCS--R236041** Units: **µg/Kg-dry** Analysis Date: **05/17/18 12:38 PM**
Client ID: Run ID: **VMS10_180516B** SeqNo: **5038293** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	23.96	16	30	20	0	120	75-125	0			J
1,1,1-Trichloroethane	24.75	14	30	20	0	124	70-135	0			J
1,1,2,2-Tetrachloroethane	28.23	13	30	20	0	141	55-130	0			JS
1,1,2-Trichloroethane	25.5	13	30	20	0	128	60-125	0			JS
1,1-Dichloroethane	26.91	11	30	20	0	135	75-125	0			JS
1,1-Dichloroethene	22.83	9.7	30	20	0	114	76-148	0			J
1,1-Dichloropropene	23.56	12	30	20	0	118	70-135	0			J
1,2,3-Trichlorobenzene	23.14	14	30	20	0	116	60-135	0			J
1,2,3-Trichloropropane	25.74	13	30	20	0	129	65-130	0			J
1,2,4-Trichlorobenzene	23.65	10	30	20	0	118	65-130	0			J
1,2,4-Trimethylbenzene	24.54	5.6	30	20	0	123	65-135	0			J
1,2-Dibromo-3-chloropropane	U	28	100	20	0	0	40-135	0			S
1,2-Dibromoethane	28.92	8.4	30	20	0	145	80-195	0			J
1,2-Dichlorobenzene	24.7	11	30	20	0	124	75-120	0			JS
1,2-Dichloroethane	25.04	13	30	20	0	125	70-135	0			J
1,2-Dichloropropane	25.74	5.2	30	20	0	129	70-120	0			JS
1,3,5-Trimethylbenzene	25.43	9.2	30	20	0	127	65-135	0			J
1,3-Dichlorobenzene	24.21	10	30	20	0	121	70-125	0			J
1,3-Dichloropropane	24.51	8.4	30	20	0	123	75-125	0			J
1,4-Dichlorobenzene	24.67	7.2	30	20	0	123	70-125	0			J
2,2-Dichloropropane	20.57	12	30	20	0	103	54-146	0			J
2-Butanone	26.77	25	200	20	0	134	30-160	0			J
2-Chlorotoluene	25.45	11	30	20	0	127	70-130	0			J
4-Chlorotoluene	25.18	7.1	30	20	0	126	75-125	0			JS
4-Methyl-2-pentanone	39.4	14	30	20	0	197	74-176	0			S
Acetone	U	31	100	20	0	0	20-160	0			S
Benzene	25.43	5.1	30	20	0	127	75-125	0			JS
Bromobenzene	25.44	12	30	20	0	127	65-120	0			JS
Bromochloromethane	27.45	15	30	20	0	137	74-134	0			JS
Bromodichloromethane	24.6	17	30	20	0	123	70-130	0			J
Bromoform	21.88	13	30	20	0	109	55-135	0			J
Bromomethane	U	57	100	20	0	0	50-170	0			S
Carbon tetrachloride	23.1	12	30	20	0	116	65-135	0			J
Chlorobenzene	23.79	10	30	20	0	119	75-125	0			J
Chloroethane	25.33	10	100	20	0	127	40-155	0			J
Chloroform	24.86	11	30	20	0	124	70-125	0			J
Chloromethane	27.06	25	100	20	0	135	50-144	0			J
cis-1,2-Dichloroethene	27.23	9.4	30	20	0	136	65-125	0			JS
cis-1,3-Dichloropropene	25.66	11	30	20	0	128	70-125	0			JS
Dibromochloromethane	22.82	17	30	20	0	114	65-135	0			J
Dibromomethane	24.83	9.8	30	20	0	124	75-130	0			J
Dichlorodifluoromethane	20.6	6.3	30	20	0	103	35-135	0			J
Diisopropyl ether	28.96	5.6	30	20	0	145	70-130	0			JS

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Ethylbenzene	24.19	6.3	30	20	0	121	75-125	0	J
Hexachlorobutadiene	U	27	100	20	0	0	55-140	0	S
Isopropylbenzene	24.64	9.2	30	20	0	123	75-130	0	J
m,p-Xylene	49.07	14	60	40	0	123	80-125	0	J
Methyl tert-butyl ether	29.55	8.6	30	20	0	148	75-125	0	JS
Methylene chloride	24.94	13	30	20	0	125	55-145	0	J
Naphthalene	24.94	8.3	100	20	0	125	40-140	0	J
n-Butylbenzene	25.31	8.5	30	20	0	127	65-140	0	J
n-Propylbenzene	24.9	9.7	30	20	0	124	65-135	0	J
o-Xylene	25.02	12	30	20	0	125	75-125	0	JS
p-Isopropyltoluene	U	25	100	20	0	0	71-157	0	S
sec-Butylbenzene	24.77	12	30	20	0	124	65-130	0	J
Styrene	26.05	12	30	20	0	130	80-138	0	J
tert-Butylbenzene	26.94	9.7	30	20	0	135	65-130	0	JS
Tetrachloroethene	23.06	8.7	30	20	0	115	67-167	0	J
Toluene	23.46	8.2	30	20	0	117	70-125	0	J
trans-1,2-Dichloroethene	26.85	11	30	20	0	134	65-135	0	J
trans-1,3-Dichloropropene	23.5	17	30	20	0	118	59-129	0	J
Trichloroethene	24.31	13	30	20	0	122	75-125	0	J
Trichlorofluoromethane	23.99	15	30	20	0	120	25-185	0	J
Vinyl chloride	24.14	6.4	30	20	0	121	60-125	0	J
Xylenes, Total	74.09	26	90	60	0	123	75-125	0	J
Surr: 1,2-Dichloroethane-d4	*20.91*	0	0	*20*	0	*105*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*20.56*	0	0	*20*	0	*103*	*70-130*	0	
Surr: Dibromofluoromethane	*20.89*	0	0	*20*	0	*104*	*70-130*	0	
Surr: Toluene-d8	*19.15*	0	0	*20*	0	*95.8*	*70-130*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236041** Units: **µg/L** Analysis Date: **05/17/18 12:22 PM**
Client ID: Run ID: **VMS10_180516B** SeqNo: **5094558** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	22.3	0.22	0.74	20	0	112	73-114	0			
1,1,1-Trichloroethane	22.97	0.36	1.2	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	26.99	0.19	0.62	20	0	135	75-130	0			S
1,1,2-Trichloroethane	23.5	0.4	1.3	20	0	118	75-125	0			
1,1-Dichloroethane	26.21	0.31	1.0	20	0	131	75-133	0			
1,1-Dichloroethene	22	0.28	0.92	20	0	110	70-145	0			
1,1-Dichloropropene	21.59	0.35	1.2	20	0	108	75-135	0			
1,2,3-Trichlorobenzene	22.44	0.17	0.55	20	0	112	70-140	0			
1,2,3-Trichloropropane	25	0.11	0.40	20	0	125	75-125	0			
1,2,4-Trichlorobenzene	21.8	0.21	0.71	20	0	109	70-135	0			
1,2,4-Trimethylbenzene	23.2	0.37	1.2	20	0	116	75-130	0			
1,2-Dibromo-3-chloropropane	22.78	0.97	3.2	20	0	114	60-130	0			
1,2-Dibromoethane	27.66	0.98	3.3	20	0	138	90-195	0			
1,2-Dichlorobenzene	23.15	0.22	0.73	20	0	116	70-130	0			
1,2-Dichloroethane	23.57	0.17	0.55	20	0	118	78-125	0			
1,2-Dichloropropane	24.66	0.25	0.83	20	0	123	75-125	0			
1,3,5-Trimethylbenzene	23.54	0.29	0.95	20	0	118	75-130	0			
1,3-Dichlorobenzene	23.18	0.29	0.96	20	0	116	75-130	0			
1,3-Dichloropropane	23.65	0.18	0.61	20	0	118	75-125	0			
1,4-Dichlorobenzene	23.18	0.21	0.71	20	0	116	75-130	0			
2,2-Dichloropropane	19.87	0.44	1.5	20	0	99.4	43-150	0			
2-Butanone	25.19	0.58	2.0	20	0	126	55-150	0			
2-Chlorotoluene	23.66	0.32	1.1	20	0	118	84-133	0			
4-Chlorotoluene	23.47	0.28	0.95	20	0	117	80-125	0			
4-Methyl-2-pentanone	37.16	0.11	0.40	20	0	186	77-178	0			S
Acetone	23.03	0.92	3.1	20	0	115	60-160	0			
Benzene	23.55	0.3	1.0	20	0	118	85-125	0			
Bromobenzene	24.06	0.24	0.80	20	0	120	80-125	0			
Bromochloromethane	26.72	0.2	0.66	20	0	134	72-141	0			
Bromodichloromethane	22.17	0.23	0.78	20	0	111	75-125	0			
Bromoform	20.36	0.77	2.6	20	0	102	60-125	0			
Bromomethane	17.37	0.38	1.3	20	0	86.8	30-185	0			
Carbon tetrachloride	21.42	0.31	1.0	20	0	107	65-140	0			
Chlorobenzene	22.18	0.27	0.90	20	0	111	80-120	0			
Chloroethane	24.16	0.29	0.97	20	0	121	50-140	0			
Chloroform	24.47	0.26	0.86	20	0	122	80-130	0			
Chloromethane	27.32	0.17	0.57	20	0	137	46-148	0			
cis-1,2-Dichloroethene	26.91	0.25	0.85	20	0	135	75-134	0			S
cis-1,3-Dichloropropene	23.36	0.39	1.3	20	0	117	70-130	0			
Dibromochloromethane	21.18	0.38	1.2	20	0	106	60-115	0			
Dibromomethane	23.7	0.25	0.83	20	0	118	85-125	0			
Dichlorodifluoromethane	19.95	0.13	0.44	20	0	99.8	20-120	0			
Ethylbenzene	22.83	0.4	1.3	20	0	114	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Hexachlorobutadiene	23.46	0.24	0.80	20	0	117	70-155	0	
Isopropylbenzene	23.16	0.31	1.0	20	0	116	80-127	0	
m,p-Xylene	45.96	0.98	3.3	40	0	115	75-130	0	
Methyl tert-butyl ether	28.49	0.12	0.40	20	0	142	80-130	0	S
Methylene chloride	23.79	0.56	1.8	20	0	119	75-140	0	
Naphthalene	23.3	0.18	0.59	20	0	116	55-160	0	
n-Butylbenzene	23.64	0.22	0.73	20	0	118	75-145	0	
n-Propylbenzene	23.04	0.24	0.81	20	0	115	83-135	0	
o-Xylene	23.46	0.35	1.2	20	0	117	80-125	0	
p-Isopropyltoluene	23.16	0.14	0.48	20	0	116	61-164	0	
sec-Butylbenzene	23.23	0.29	0.98	20	0	116	80-134	0	
Styrene	24.29	0.24	0.79	20	0	121	83-137	0	
tert-Butylbenzene	21.22	0.34	1.2	20	0	106	70-130	0	
Tetrachloroethene	21.3	0.27	0.91	20	0	106	68-166	0	
Toluene	22.37	0.37	1.2	20	0	112	76-125	0	
trans-1,2-Dichloroethene	26.3	0.28	0.93	20	0	132	80-140	0	
trans-1,3-Dichloropropene	22.25	0.82	2.7	20	0	111	56-132	0	
Trichloroethene	22.09	0.3	0.99	20	0	110	84-130	0	
Trichlorofluoromethane	23.2	0.2	0.66	20	0	116	60-140	0	
Vinyl chloride	23.03	0.2	0.68	20	0	115	50-136	0	
Xylenes, Total	69.42	1.3	4.4	60	0	116	80-126	0	
Surr: 1,2-Dichloroethane-d4	*20.11*	0	0	*20*	0	*101*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*20.25*	0	0	*20*	0	*101*	*80-110*	0	
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0	
Surr: Toluene-d8	*19.33*	0	0	*20*	0	*96.6*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **1805786-23A MS** Units: **µg/L** Analysis Date: **05/17/18 07:02 AM**
Client ID: **W-34** Run ID: **VMS10_180516B** SeqNo: **5094556** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	269.7	2.2	7.4	200	0	135	73-114	0			S
1,1,1-Trichloroethane	49460	3.6	12	200	47700	884	75-130	0			SEO
1,1,2,2-Tetrachloroethane	280.1	1.9	6.2	200	0	140	75-130	0			S
1,1,2-Trichloroethane	1643	4	13	200	1374	134	75-125	0			SEO
1,1-Dichloroethane	2126	3.1	10	200	1935	95.4	75-133	0			EO
1,1-Dichloroethene	3722	2.8	9.2	200	3658	32	70-145	0			SEO
1,1-Dichloropropene	266.4	3.5	12	200	0	133	75-135	0			
1,2,3-Trichlorobenzene	228.1	1.7	5.5	200	0	114	70-140	0			
1,2,3-Trichloropropane	258.3	1.1	4.0	200	0	129	75-125	0			S
1,2,4-Trichlorobenzene	218	2.1	7.1	200	0	109	70-135	0			
1,2,4-Trimethylbenzene	293.6	3.7	12	200	38.2	128	75-130	0			
1,2-Dibromo-3-chloropropane	237.8	9.7	32	200	0	119	60-130	0			
1,2-Dibromoethane	296.2	9.8	33	200	0	148	90-195	0			
1,2-Dichlorobenzene	312.7	2.2	7.3	200	69.6	122	70-130	0			
1,2-Dichloroethane	468.9	1.7	5.5	200	204.8	132	78-125	0			S
1,2-Dichloropropane	862.3	2.5	8.3	200	563.7	149	75-125	0			S
1,3,5-Trimethylbenzene	286	2.9	9.5	200	19.8	133	75-130	0			S
1,3-Dichlorobenzene	240.9	2.9	9.6	200	2.3	119	75-130	0			
1,3-Dichloropropane	238.6	1.8	6.1	200	0	119	75-125	0			
1,4-Dichlorobenzene	248.9	2.1	7.1	200	8.2	120	75-130	0			
2,2-Dichloropropane	194.7	4.4	15	200	0	97.4	43-150	0			
2-Butanone	336	5.8	20	200	0	168	55-150	0			S
2-Chlorotoluene	274.7	3.2	11	200	0	137	84-133	0			S
4-Chlorotoluene	260.9	2.8	9.5	200	0	130	80-125	0			S
4-Methyl-2-pentanone	512.3	1.1	4.0	200	124	194	77-178	0			S
Acetone	273.1	9.2	31	200	19.3	127	60-160	0			
Benzene	290.4	3	10	200	16.7	137	85-125	0			S
Bromobenzene	258.6	2.4	8.0	200	0	129	80-125	0			S
Bromochloromethane	341.6	2	6.6	200	0	171	72-141	0			S
Bromodichloromethane	270.4	2.3	7.8	200	0	135	75-125	0			S
Bromoform	221.9	7.7	26	200	0	111	60-125	0			
Bromomethane	257.8	3.8	13	200	0	129	30-185	0			
Carbon tetrachloride	295.3	3.1	10	200	0	148	65-140	0			S
Chlorobenzene	246.5	2.7	9.0	200	0	123	80-120	0			S
Chloroethane	314.9	2.9	9.7	200	19.5	148	50-140	0			S
Chloroform	417.5	2.6	8.6	200	152.6	132	80-130	0			S
Chloromethane	292	1.7	5.7	200	0	146	46-148	0			
cis-1,2-Dichloroethene	13720	2.5	8.5	200	13790	-35.8	75-134	0			SEO
cis-1,3-Dichloropropene	258.4	3.9	13	200	0	129	70-130	0			
Dibromochloromethane	233.4	3.8	12	200	0	117	60-115	0			S
Dibromomethane	267.3	2.5	8.3	200	0	134	85-125	0			S
Dichlorodifluoromethane	292.7	1.3	4.4	200	0	146	20-120	0			S
Ethylbenzene	454.4	4	13	200	192	131	76-123	0			S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Hexachlorobutadiene	227.4	2.4	8.0	200	0	114	70-155	0	
Isopropylbenzene	272.8	3.1	10	200	5.7	134	80-127	0	S
m,p-Xylene	1272	9.8	33	400	744	132	75-130	0	S
Methyl tert-butyl ether	303.3	1.2	4.0	200	0	152	80-130	0	S
Methylene chloride	3816	5.6	18	200	3661	77.8	75-140	0	EO
Naphthalene	248.9	1.8	5.9	200	8.6	120	55-160	0	
n-Butylbenzene	251.3	2.2	7.3	200	0	126	75-145	0	
n-Propylbenzene	269	2.4	8.1	200	5.5	132	83-135	0	
o-Xylene	717.6	3.5	12	200	450.6	134	80-125	0	S
p-Isopropyltoluene	250.6	1.4	4.8	200	0	125	61-164	0	
sec-Butylbenzene	270.5	2.9	9.8	200	0	135	80-134	0	S
Styrene	313.1	2.4	7.9	200	0	157	83-137	0	S
tert-Butylbenzene	296	3.4	12	200	0	148	70-130	0	S
Tetrachloroethene	17670	2.7	9.1	200	17940	-136	68-166	0	SEO
Toluene	1684	3.7	12	200	1444	120	76-125	0	EO
trans-1,2-Dichloroethene	484.9	2.8	9.3	200	261.3	112	80-140	0	
trans-1,3-Dichloropropene	228.2	8.2	27	200	0	114	56-132	0	
Trichloroethene	55260	3	9.9	200	52100	1580	84-130	0	SEO
Trichlorofluoromethane	299.5	2	6.6	200	0	150	60-140	0	S
Vinyl chloride	384	2	6.8	200	93.9	145	50-136	0	S
Xylenes, Total	1990	13	44	600	1195	133	80-126	0	S
Surr: 1,2-Dichloroethane-d4	*209.7*	0	0	*200*	0	*105*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*204.1*	0	0	*200*	0	*102*	*80-110*	0	
Surr: Dibromofluoromethane	*219.2*	0	0	*200*	0	*110*	*85-115*	0	
Surr: Toluene-d8	*195.8*	0	0	*200*	0	*97.9*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **1805786-23A MSD** Units: **µg/L** Analysis Date: **05/17/18 07:18 AM**
Client ID: **W-34** Run ID: **VMS10_180516B** SeqNo: **5094557** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	250.2	2.2	7.4	200	0	125	73-114	269.7	7.5	30	S
1,1,1-Trichloroethane	48450	3.6	12	200	47700	376	75-130	49460	2.08	30	SEO
1,1,2,2-Tetrachloroethane	266.4	1.9	6.2	200	0	133	75-130	280.1	5.01	30	S
1,1,2-Trichloroethane	1619	4	13	200	1374	122	75-125	1643	1.45	30	EO
1,1-Dichloroethane	2171	3.1	10	200	1935	118	75-133	2126	2.08	30	EO
1,1-Dichloroethene	3834	2.8	9.2	200	3658	88.4	70-145	3722	2.99	30	EO
1,1-Dichloropropene	235	3.5	12	200	0	118	75-135	266.4	12.5	30	
1,2,3-Trichlorobenzene	210.2	1.7	5.5	200	0	105	70-140	228.1	8.17	30	
1,2,3-Trichloropropane	261.1	1.1	4.0	200	0	131	75-125	258.3	1.08	30	S
1,2,4-Trichlorobenzene	206.2	2.1	7.1	200	0	103	70-135	218	5.56	30	
1,2,4-Trimethylbenzene	275.8	3.7	12	200	38.2	119	75-130	293.6	6.25	30	
1,2-Dibromo-3-chloropropane	224.2	9.7	32	200	0	112	60-130	237.8	5.89	30	
1,2-Dibromoethane	278.3	9.8	33	200	0	139	90-195	296.2	6.23	30	
1,2-Dichlorobenzene	290.1	2.2	7.3	200	69.6	110	70-130	312.7	7.5	30	
1,2-Dichloroethane	447.9	1.7	5.5	200	204.8	122	78-125	468.9	4.58	30	
1,2-Dichloropropane	838.1	2.5	8.3	200	563.7	137	75-125	862.3	2.85	30	S
1,3,5-Trimethylbenzene	264.3	2.9	9.5	200	19.8	122	75-130	286	7.89	30	
1,3-Dichlorobenzene	219.2	2.9	9.6	200	2.3	108	75-130	240.9	9.43	30	
1,3-Dichloropropane	236.7	1.8	6.1	200	0	118	75-125	238.6	0.799	30	
1,4-Dichlorobenzene	227.2	2.1	7.1	200	8.2	110	75-130	248.9	9.12	30	
2,2-Dichloropropane	186.7	4.4	15	200	0	93.4	43-150	194.7	4.2	30	
2-Butanone	335.3	5.8	20	200	0	168	55-150	336	0.209	30	S
2-Chlorotoluene	257.2	3.2	11	200	0	129	84-133	274.7	6.58	30	
4-Chlorotoluene	245.9	2.8	9.5	200	0	123	80-125	260.9	5.92	30	
4-Methyl-2-pentanone	514.5	1.1	4.0	200	124	195	77-178	512.3	0.429	30	S
Acetone	274.9	9.2	31	200	19.3	128	60-160	273.1	0.657	30	
Benzene	267.3	3	10	200	16.7	125	85-125	290.4	8.28	30	S
Bromobenzene	248.8	2.4	8.0	200	0	124	80-125	258.6	3.86	30	
Bromochloromethane	335.8	2	6.6	200	0	168	72-141	341.6	1.71	30	S
Bromodichloromethane	251.6	2.3	7.8	200	0	126	75-125	270.4	7.2	30	S
Bromoform	211.2	7.7	26	200	0	106	60-125	221.9	4.94	30	
Bromomethane	232.9	3.8	13	200	0	116	30-185	257.8	10.1	30	
Carbon tetrachloride	269.2	3.1	10	200	0	135	65-140	295.3	9.25	30	
Chlorobenzene	233.5	2.7	9.0	200	0	117	80-120	246.5	5.42	30	
Chloroethane	288.5	2.9	9.7	200	19.5	134	50-140	314.9	8.75	30	
Chloroform	407.6	2.6	8.6	200	152.6	128	80-130	417.5	2.4	30	
Chloromethane	273.1	1.7	5.7	200	0	137	46-148	292	6.69	30	
cis-1,2-Dichloroethene	14030	2.5	8.5	200	13790	123	75-134	13720	2.28	30	EO
cis-1,3-Dichloropropene	242.7	3.9	13	200	0	121	70-130	258.4	6.27	30	
Dibromochloromethane	225.7	3.8	12	200	0	113	60-115	233.4	3.35	30	
Dibromomethane	245	2.5	8.3	200	0	122	85-125	267.3	8.71	30	
Dichlorodifluoromethane	272.8	1.3	4.4	200	0	136	20-120	292.7	7.04	30	S
Ethylbenzene	435.2	4	13	200	192	122	76-123	454.4	4.32	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041** Instrument ID **VMS10** Method: **SW8260C**

Hexachlorobutadiene	223.5	2.4	8.0	200	0	112	70-155	227.4	1.73	30	
Isopropylbenzene	249.8	3.1	10	200	5.7	122	80-127	272.8	8.8	30	
m,p-Xylene	1224	9.8	33	400	744	120	75-130	1272	3.88	30	
Methyl tert-butyl ether	299.3	1.2	4.0	200	0	150	80-130	303.3	1.33	30	S
Methylene chloride	3860	5.6	18	200	3661	99.7	75-140	3816	1.14	30	EO
Naphthalene	235.8	1.8	5.9	200	8.6	114	55-160	248.9	5.41	30	
n-Butylbenzene	233.6	2.2	7.3	200	0	117	75-145	251.3	7.3	30	
n-Propylbenzene	249.1	2.4	8.1	200	5.5	122	83-135	269	7.68	30	
o-Xylene	700.7	3.5	12	200	450.6	125	80-125	717.6	2.38	30	S
p-Isopropyltoluene	222.7	1.4	4.8	200	0	111	61-164	250.6	11.8	30	
sec-Butylbenzene	245.7	2.9	9.8	200	0	123	80-134	270.5	9.61	30	
Styrene	292.6	2.4	7.9	200	0	146	83-137	313.1	6.77	30	S
tert-Butylbenzene	232.1	3.4	12	200	0	116	70-130	296	24.2	30	
Tetrachloroethene	17610	2.7	9.1	200	17940	-164	68-166	17670	0.319	30	SEO
Toluene	1671	3.7	12	200	1444	113	76-125	1684	0.787	30	EO
trans-1,2-Dichloroethene	412.6	2.8	9.3	200	261.3	75.6	80-140	484.9	16.1	30	S
trans-1,3-Dichloropropene	218.4	8.2	27	200	0	109	56-132	228.2	4.39	30	
Trichloroethene	53980	3	9.9	200	52100	943	84-130	55260	2.34	30	SEO
Trichlorofluoromethane	279.2	2	6.6	200	0	140	60-140	299.5	7.02	30	
Vinyl chloride	355	2	6.8	200	93.9	131	50-136	384	7.85	30	
Xylenes, Total	1924	13	44	600	1195	122	80-126	1990	3.34	30	
Surr: 1,2-Dichloroethane-d4	*198.8*	0	0	*200*	0	*99.4*	*75-120*	209.7	*5.34*	*30*	
Surr: 4-Bromofluorobenzene	*208.3*	0	0	*200*	0	*104*	*80-110*	204.1	*2.04*	*30*	
Surr: Dibromofluoromethane	*221*	0	0	*200*	0	*110*	*85-115*	219.2	*0.818*	*30*	
Surr: Toluene-d8	*188.7*	0	0	*200*	0	*94.4*	*85-110*	195.8	*3.69*	*30*	

The following samples were analyzed in this batch: 1805786-13A 1805786-23A 1805786-31A

QC BATCH REPORT

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180516-R236041A** Units: **µg/L** Analysis Date: **05/17/18 01:10 AM**
Client ID: Run ID: **VMS10_180516B** SeqNo: **5038255** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041A**	Instrument ID **VMS10**			Method: **SW8260C**					
Styrene	U	0.19	1.0						
Tetrachloroethene	U	0.28	1.0						
Toluene	0.35	0.32	1.0						J
trans-1,2-Dichloroethene	U	0.48	1.0						
trans-1,3-Dichloropropene	U	0.15	1.0						
Trichloroethene	U	0.33	1.0						
Trichlorofluoromethane	U	0.24	1.0						
Vinyl chloride	U	0.53	1.0						
Surr: 1,2-Dichloroethane-d4	*20.69*	0	0	*20*	0	*103*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*19.2*	0	0	*20*	0	*96*	*80-110*	0	
Surr: Dibromofluoromethane	*19*	0	0	*20*	0	*95*	*85-115*	0	
Surr: Toluene-d8	*19.54*	0	0	*20*	0	*97.7*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180516-R236041A** Units: **µg/L** Analysis Date: **05/17/18 12:22 PM**
Client ID: Run ID: **VMS10_180516B** SeqNo: **5038288** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.97	0.33	1.0	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	26.99	0.17	1.0	20	0	135	75-130	0			S
1,1,2-Trichloroethane	23.5	0.22	1.0	20	0	118	75-125	0			
1,1-Dichloroethane	26.21	0.48	1.0	20	0	131	68-142	0			
1,1-Dichloroethene	22	0.36	1.0	20	0	110	70-145	0			
1,2,3-Trichlorobenzene	22.44	0.29	1.0	20	0	112	70-140	0			
1,2,4-Trichlorobenzene	21.8	0.25	1.0	20	0	109	70-135	0			
1,2-Dibromo-3-chloropropane	22.78	0.43	1.0	20	0	114	60-130	0			
1,2-Dibromoethane	27.66	0.17	1.0	20	0	138	67-155	0			
1,2-Dichlorobenzene	23.15	0.12	1.0	20	0	116	70-130	0			
1,2-Dichloroethane	23.57	0.11	1.0	20	0	118	78-125	0			
1,2-Dichloropropane	24.66	0.34	1.0	20	0	123	75-125	0			
1,3-Dichlorobenzene	23.18	0.13	1.0	20	0	116	75-130	0			
1,4-Dichlorobenzene	23.18	0.13	1.0	20	0	116	75-130	0			
2-Butanone	25.19	0.47	5.0	20	0	126	55-150	0			
2-Hexanone	26.3	0.5	5.0	20	0	132	60-135	0			
4-Methyl-2-pentanone	37.16	0.52	1.0	20	0	186	77-178	0			S
Acetone	23.03	0.47	10	20	0	115	60-160	0			
Benzene	23.55	0.42	1.0	20	0	118	85-125	0			
Bromochloromethane	26.72	0.15	1.0	20	0	134	72-141	0			
Bromodichloromethane	22.17	0.22	1.0	20	0	111	75-125	0			
Bromoform	20.36	0.56	1.0	20	0	102	60-125	0			
Bromomethane	17.37	0.29	1.0	20	0	86.8	30-185	0			
Carbon disulfide	19.77	0.39	1.0	20	0	98.8	60-165	0			
Carbon tetrachloride	21.42	0.32	1.0	20	0	107	65-140	0			
Chlorobenzene	22.18	0.21	1.0	20	0	111	80-120	0			
Chloroethane	24.16	0.68	1.0	20	0	121	50-140	0			
Chloroform	24.47	0.46	1.0	20	0	122	80-130	0			
Chloromethane	27.32	0.68	1.0	20	0	137	46-148	0			
cis-1,2-Dichloroethene	26.91	0.38	1.0	20	0	135	75-134	0			S
cis-1,3-Dichloropropene	23.36	0.13	1.0	20	0	117	70-130	0			
Dibromochloromethane	21.18	0.2	1.0	20	0	106	60-115	0			
Dichlorodifluoromethane	19.95	0.3	1.0	20	0	99.8	20-120	0			
Ethylbenzene	22.83	0.29	1.0	20	0	114	76-123	0			
Isopropylbenzene	23.16	0.17	1.0	20	0	116	80-127	0			
m,p-Xylene	45.96	0.53	2.0	40	0	115	75-130	0			
Methyl tert-butyl ether	28.49	0.21	1.0	20	0	142	68-129	0			S
Methylene chloride	23.79	0.16	5.0	20	0	119	75-140	0			
o-Xylene	23.46	0.19	1.0	20	0	117	76-127	0			
Styrene	24.29	0.19	1.0	20	0	121	83-137	0			
Tetrachloroethene	21.3	0.28	1.0	20	0	106	68-166	0			
Toluene	22.37	0.32	1.0	20	0	112	76-125	0			
trans-1,2-Dichloroethene	26.3	0.48	1.0	20	0	132	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,3-Dichloropropene	22.25	0.15	1.0	20	0	111	56-132	0
Trichloroethene	22.09	0.33	1.0	20	0	110	84-130	0
Trichlorofluoromethane	23.2	0.24	1.0	20	0	116	60-140	0
Vinyl chloride	23.03	0.53	1.0	20	0	115	50-136	0
Surr: 1,2-Dichloroethane-d4	*20.11*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.25*	0	0	*20*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*19.33*	0	0	*20*	0	*96.6*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **1805786-23A MS** Units: **µg/L** Analysis Date: **05/17/18 07:02 AM**
Client ID: **W-34** Run ID: **VMS10_180516B** SeqNo: **5038283** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49460	3.3	10	200	47700	884	75-130	0			SEO
1,1,2,2-Tetrachloroethane	280.1	1.7	10	200	0	140	75-130	0			S
1,1,2-Trichloroethane	1643	2.2	10	200	1374	134	75-125	0			SEO
1,1-Dichloroethane	2126	4.8	10	200	1935	95.4	68-142	0			EO
1,1-Dichloroethene	3722	3.6	10	200	3658	32	70-145	0			SEO
1,2,3-Trichlorobenzene	228.1	2.9	10	200	0	114	70-140	0			
1,2,4-Trichlorobenzene	218	2.5	10	200	0	109	70-135	0			
1,2-Dibromo-3-chloropropane	237.8	4.3	10	200	0	119	60-130	0			
1,2-Dibromoethane	296.2	1.7	10	200	0	148	67-155	0			
1,2-Dichlorobenzene	312.7	1.2	10	200	69.6	122	70-130	0			
1,2-Dichloroethane	468.9	1.1	10	200	204.8	132	78-125	0			S
1,2-Dichloropropane	862.3	3.4	10	200	563.7	149	75-125	0			S
1,3-Dichlorobenzene	240.9	1.3	10	200	2.3	119	75-130	0			
1,4-Dichlorobenzene	248.9	1.3	10	200	8.2	120	75-130	0			
2-Butanone	336	4.7	50	200	0	168	55-150	0			S
2-Hexanone	281.5	5	50	200	0	141	60-135	0			S
4-Methyl-2-pentanone	512.3	5.2	10	200	124	194	77-178	0			S
Acetone	273.1	4.7	100	200	19.3	127	60-160	0			
Benzene	290.4	4.2	10	200	16.7	137	85-125	0			S
Bromochloromethane	341.6	1.5	10	200	0	171	72-141	0			S
Bromodichloromethane	270.4	2.2	10	200	0	135	75-125	0			S
Bromoform	221.9	5.6	10	200	0	111	60-125	0			
Bromomethane	257.8	2.9	10	200	0	129	30-185	0			
Carbon disulfide	223	3.9	10	200	0	112	60-165	0			
Carbon tetrachloride	295.3	3.2	10	200	0	148	65-140	0			S
Chlorobenzene	246.5	2.1	10	200	0	123	80-120	0			S
Chloroethane	314.9	6.8	10	200	19.5	148	50-140	0			S
Chloroform	417.5	4.6	10	200	152.6	132	80-130	0			S
Chloromethane	292	6.8	10	200	0	146	46-148	0			
cis-1,2-Dichloroethene	13720	3.8	10	200	13790	-35.8	75-134	0			SEO
cis-1,3-Dichloropropene	258.4	1.3	10	200	0	129	70-130	0			
Dibromochloromethane	233.4	2	10	200	0	117	60-115	0			S
Dichlorodifluoromethane	292.7	3	10	200	0	146	20-120	0			S
Ethylbenzene	454.4	2.9	10	200	192	131	76-123	0			S
Isopropylbenzene	272.8	1.7	10	200	5.7	134	80-127	0			S
m,p-Xylene	1272	5.3	20	400	744	132	75-130	0			S
Methyl tert-butyl ether	303.3	2.1	10	200	0	152	68-129	0			S
Methylene chloride	3816	1.6	50	200	3661	77.8	75-140	0			EO
o-Xylene	717.6	1.9	10	200	450.6	134	76-127	0			S
Styrene	313.1	1.9	10	200	0	157	83-137	0			S
Tetrachloroethene	17670	2.8	10	200	17940	-136	68-166	0			SEO
Toluene	1684	3.2	10	200	1444	120	76-125	0			EO
trans-1,2-Dichloroethene	484.9	4.8	10	200	261.3	112	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236041A**	Instrument ID **VMS10**			Method: **SW8260C**					
trans-1,3-Dichloropropene	228.2	1.5	10	200	0	114	56-132	0	
Trichloroethene	55260	3.3	10	200	52100	1580	84-130	0	SEO
Trichlorofluoromethane	299.5	2.4	10	200	0	150	60-140	0	S
Vinyl chloride	384	5.3	10	200	93.9	145	50-136	0	S
Surr: 1,2-Dichloroethane-d4	*209.7*	0	0	*200*	0	*105*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*204.1*	0	0	*200*	0	*102*	*80-110*	0	
Surr: Dibromofluoromethane	*219.2*	0	0	*200*	0	*110*	*85-115*	0	
Surr: Toluene-d8	*195.8*	0	0	*200*	0	*97.9*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **1805786-23A MSD** Units: **µg/L** Analysis Date: **05/17/18 07:18 AM**
Client ID: **W-34** Run ID: **VMS10_180516B** SeqNo: **5038286** Prep Date: DF: **10**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48450	3.3	10	200	47700	376	75-130	49460	2.08	30	SEO
1,1,2,2-Tetrachloroethane	266.4	1.7	10	200	0	133	75-130	280.1	5.01	30	S
1,1,2-Trichloroethane	1619	2.2	10	200	1374	122	75-125	1643	1.45	30	EO
1,1-Dichloroethane	2171	4.8	10	200	1935	118	68-142	2126	2.08	30	EO
1,1-Dichloroethene	3834	3.6	10	200	3658	88.4	70-145	3722	2.99	30	EO
1,2,3-Trichlorobenzene	210.2	2.9	10	200	0	105	70-140	228.1	8.17	30	
1,2,4-Trichlorobenzene	206.2	2.5	10	200	0	103	70-135	218	5.56	30	
1,2-Dibromo-3-chloropropane	224.2	4.3	10	200	0	112	60-130	237.8	5.89	30	
1,2-Dibromoethane	278.3	1.7	10	200	0	139	67-155	296.2	6.23	30	
1,2-Dichlorobenzene	290.1	1.2	10	200	69.6	110	70-130	312.7	7.5	30	
1,2-Dichloroethane	447.9	1.1	10	200	204.8	122	78-125	468.9	4.58	30	
1,2-Dichloropropane	838.1	3.4	10	200	563.7	137	75-125	862.3	2.85	30	S
1,3-Dichlorobenzene	219.2	1.3	10	200	2.3	108	75-130	240.9	9.43	30	
1,4-Dichlorobenzene	227.2	1.3	10	200	8.2	110	75-130	248.9	9.12	30	
2-Butanone	335.3	4.7	50	200	0	168	55-150	336	0.209	30	S
2-Hexanone	281.1	5	50	200	0	141	60-135	281.5	0.142	30	S
4-Methyl-2-pentanone	514.5	5.2	10	200	124	195	77-178	512.3	0.429	30	S
Acetone	274.9	4.7	100	200	19.3	128	60-160	273.1	0.657	30	
Benzene	267.3	4.2	10	200	16.7	125	85-125	290.4	8.28	30	S
Bromochloromethane	335.8	1.5	10	200	0	168	72-141	341.6	1.71	30	S
Bromodichloromethane	251.6	2.2	10	200	0	126	75-125	270.4	7.2	30	S
Bromoform	211.2	5.6	10	200	0	106	60-125	221.9	4.94	30	
Bromomethane	232.9	2.9	10	200	0	116	30-185	257.8	10.1	30	
Carbon disulfide	209.7	3.9	10	200	0	105	60-165	223	6.15	30	
Carbon tetrachloride	269.2	3.2	10	200	0	135	65-140	295.3	9.25	30	
Chlorobenzene	233.5	2.1	10	200	0	117	80-120	246.5	5.42	30	
Chloroethane	288.5	6.8	10	200	19.5	134	50-140	314.9	8.75	30	
Chloroform	407.6	4.6	10	200	152.6	128	80-130	417.5	2.4	30	
Chloromethane	273.1	6.8	10	200	0	137	46-148	292	6.69	30	
cis-1,2-Dichloroethene	14030	3.8	10	200	13790	123	75-134	13720	2.28	30	EO
cis-1,3-Dichloropropene	242.7	1.3	10	200	0	121	70-130	258.4	6.27	30	
Dibromochloromethane	225.7	2	10	200	0	113	60-115	233.4	3.35	30	
Dichlorodifluoromethane	272.8	3	10	200	0	136	20-120	292.7	7.04	30	S
Ethylbenzene	435.2	2.9	10	200	192	122	76-123	454.4	4.32	30	
Isopropylbenzene	249.8	1.7	10	200	5.7	122	80-127	272.8	8.8	30	
m,p-Xylene	1224	5.3	20	400	744	120	75-130	1272	3.88	30	
Methyl tert-butyl ether	299.3	2.1	10	200	0	150	68-129	303.3	1.33	30	S
Methylene chloride	3860	1.6	50	200	3661	99.7	75-140	3816	1.14	30	EO
o-Xylene	700.7	1.9	10	200	450.6	125	76-127	717.6	2.38	30	
Styrene	292.6	1.9	10	200	0	146	83-137	313.1	6.77	30	S
Tetrachloroethene	17610	2.8	10	200	17940	-164	68-166	17670	0.319	30	SEO
Toluene	1671	3.2	10	200	1444	113	76-125	1684	0.787	30	EO
trans-1,2-Dichloroethene	412.6	4.8	10	200	261.3	75.6	80-140	484.9	16.1	30	S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236041A** Instrument ID **VMS10** Method: **SW8260C**

trans-1,3-Dichloropropene	218.4	1.5	10	200	0	109	56-132	228.2	4.39	30	
Trichloroethene	53980	3.3	10	200	52100	943	84-130	55260	2.34	30	SEO
Trichlorofluoromethane	279.2	2.4	10	200	0	140	60-140	299.5	7.02	30	
Vinyl chloride	355	5.3	10	200	93.9	131	50-136	384	7.85	30	
Surr: 1,2-Dichloroethane-d4	*198.8*	0	0	*200*	0	*99.4*	*75-120*	209.7	*5.34*	*30*	
Surr: 4-Bromofluorobenzene	*208.3*	0	0	*200*	0	*104*	*80-110*	204.1	*2.04*	*30*	
Surr: Dibromofluoromethane	*221*	0	0	*200*	0	*110*	*85-115*	219.2	*0.818*	*30*	
Surr: Toluene-d8	*188.7*	0	0	*200*	0	*94.4*	*85-110*	195.8	*3.69*	*30*	

The following samples were analyzed in this batch:

1805786-13A	1805786-14A	1805786-15A
1805786-16A	1805786-17A	1805786-18A
1805786-19A	1805786-20A	1805786-21A
1805786-22A	1805786-23A	1805786-24A
1805786-25A	1805786-26A	1805786-27A
1805786-28A	1805786-29A	1805786-30A
1805786-31A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180517-R236094** Units: **µg/L** Analysis Date: **05/18/18 12:12 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5040182** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.28	1.0								
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,1-Dichloropropene	U	0.28	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,3-Trichloropropane	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2,4-Trimethylbenzene	U	0.11	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3,5-Trimethylbenzene	U	0.15	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,3-Dichloropropane	U	0.14	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2,2-Dichloropropane	U	0.31	1.0								
2-Butanone	U	0.47	5.0								
2-Chlorotoluene	U	0.14	1.0								
2-Hexanone	U	0.5	5.0								
4-Chlorotoluene	U	0.18	1.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromobenzene	U	0.13	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094**	Instrument ID **VMS7**			Method: **SW8260C**					
Dibromochloromethane	U	0.2	1.0						
Dibromomethane	U	0.16	1.0						
Dichlorodifluoromethane	U	0.3	1.0						
Diisopropyl ether	U	0.38	5.0						
Ethylbenzene	U	0.29	1.0						
Hexachlorobutadiene	U	0.15	1.0						
Isopropylbenzene	U	0.17	1.0						
m,p-Xylene	0.64	0.53	2.0						J
Methyl acetate	U	0.26	2.0						
Methyl tert-butyl ether	U	0.21	1.0						
Methylcyclohexane	U	0.09	1.0						
Methylene chloride	U	0.16	5.0						
Naphthalene	0.59	0.14	5.0						J
n-Butylbenzene	U	0.09	1.0						
n-Propylbenzene	U	0.16	1.0						
o-Xylene	U	0.19	1.0						
p-Isopropyltoluene	U	0.1	1.0						
sec-Butylbenzene	U	0.11	1.0						
Styrene	U	0.19	1.0						
tert-Butylbenzene	U	0.1	1.0						
Tetrachloroethene	U	0.28	1.0						
Toluene	U	0.32	1.0						
trans-1,2-Dichloroethene	U	0.48	1.0						
trans-1,3-Dichloropropene	U	0.15	1.0						
Trichloroethene	U	0.33	1.0						
Trichlorofluoromethane	U	0.24	1.0						
Vinyl chloride	U	0.53	1.0						
Xylenes, Total	U	0.74	3.0						
Surr: 1,2-Dichloroethane-d4	*19.52*	0	0	*20*	0	*97.6*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*17.9*	0	0	*20*	0	*89.5*	*80-110*	0	
Surr: Dibromofluoromethane	*19.41*	0	0	*20*	0	*97*	*85-115*	0	
Surr: Toluene-d8	*18.9*	0	0	*20*	0	*94.5*	*85-110*	0	

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180517-R236094** Units: **µg/L** Analysis Date: **05/18/18 12:12 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5094580** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Hexanone	U	0.13	0.42								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon disulfide	U	0.23	0.76								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Cyclohexane	U	0.22	0.73								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dibromochloromethane	U	0.38	1.2					
Dibromomethane	U	0.25	0.83					
Dichlorodifluoromethane	U	0.13	0.44					
Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylcyclohexane	U	0.27	0.90					
Methylene chloride	U	0.56	1.8					
Naphthalene	0.65	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*20.2*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*17.48*	0	0	*20*	0	*87.4*	*80-110*	0
Surr: Dibromofluoromethane	*19.86*	0	0	*20*	0	*99.3*	*85-115*	0
Surr: Toluene-d8	*18.43*	0	0	*20*	0	*92.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236094** Units: **µg/L** Analysis Date: **05/17/18 11:08 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5040163** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.3	0.28	1.0	20	0	106	73-114	0			
1,1,1-Trichloroethane	22.23	0.33	1.0	20	0	111	75-130	0			
1,1,2,2-Tetrachloroethane	20.06	0.17	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	20.17	0.22	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	20.86	0.48	1.0	20	0	104	68-142	0			
1,1-Dichloroethene	26.1	0.36	1.0	20	0	130	70-145	0			
1,1-Dichloropropene	21.4	0.28	1.0	20	0	107	75-135	0			
1,2,3-Trichlorobenzene	21.76	0.29	1.0	20	0	109	70-140	0			
1,2,3-Trichloropropane	20.99	0.29	1.0	20	0	105	75-125	0			
1,2,4-Trichlorobenzene	21.39	0.25	1.0	20	0	107	70-135	0			
1,2,4-Trimethylbenzene	19.42	0.11	1.0	20	0	97.1	75-130	0			
1,2-Dibromo-3-chloropropane	21.79	0.43	1.0	20	0	109	60-130	0			
1,2-Dibromoethane	21.87	0.17	1.0	20	0	109	67-155	0			
1,2-Dichlorobenzene	20.07	0.12	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	20.54	0.11	1.0	20	0	103	78-125	0			
1,2-Dichloropropane	20.6	0.34	1.0	20	0	103	75-125	0			
1,3,5-Trimethylbenzene	19.21	0.15	1.0	20	0	96	75-130	0			
1,3-Dichlorobenzene	20.18	0.13	1.0	20	0	101	75-130	0			
1,3-Dichloropropane	19.57	0.14	1.0	20	0	97.8	75-125	0			
1,4-Dichlorobenzene	21.02	0.13	1.0	20	0	105	75-130	0			
2,2-Dichloropropane	20.29	0.31	1.0	20	0	101	43-150	0			
2-Butanone	19.51	0.47	5.0	20	0	97.6	55-150	0			
2-Chlorotoluene	20.08	0.14	1.0	20	0	100	76-117	0			
2-Hexanone	16.94	0.5	5.0	20	0	84.7	60-135	0			
4-Chlorotoluene	20.42	0.18	1.0	20	0	102	80-125	0			
4-Methyl-2-pentanone	22.71	0.52	1.0	20	0	114	77-178	0			
Acetone	25.05	0.47	10	20	0	125	60-160	0			
Benzene	20.64	0.42	1.0	20	0	103	85-125	0			
Bromobenzene	19.12	0.13	1.0	20	0	95.6	80-125	0			
Bromochloromethane	21.22	0.15	1.0	20	0	106	72-141	0			
Bromodichloromethane	20.63	0.22	1.0	20	0	103	75-125	0			
Bromoform	19.23	0.56	1.0	20	0	96.2	60-125	0			
Bromomethane	42.64	0.29	1.0	20	0	213	30-185	0			S
Carbon disulfide	24.98	0.39	1.0	20	0	125	60-165	0			
Carbon tetrachloride	21.58	0.32	1.0	20	0	108	65-140	0			
Chlorobenzene	20.26	0.21	1.0	20	0	101	80-120	0			
Chloroethane	21.45	0.68	1.0	20	0	107	50-140	0			
Chloroform	21.52	0.46	1.0	20	0	108	80-130	0			
Chloromethane	14.82	0.68	1.0	20	0	74.1	46-148	0			
cis-1,2-Dichloroethene	21.78	0.38	1.0	20	0	109	75-134	0			
cis-1,3-Dichloropropene	20.72	0.13	1.0	20	0	104	70-130	0			
Dibromochloromethane	19.74	0.2	1.0	20	0	98.7	60-115	0			
Dibromomethane	21.49	0.16	1.0	20	0	107	85-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	14.99	0.3	1.0	20	0	75	20-120	0
Diisopropyl ether	19.77	0.38	5.0	20	0	98.8	58-133	0
Ethylbenzene	20.08	0.29	1.0	20	0	100	76-123	0
Hexachlorobutadiene	22.17	0.15	1.0	20	0	111	70-155	0
Isopropylbenzene	20.42	0.17	1.0	20	0	102	80-127	0
m,p-Xylene	37.74	0.53	2.0	40	0	94.4	75-130	0
Methyl tert-butyl ether	19.2	0.21	1.0	20	0	96	68-129	0
Methylene chloride	22.8	0.16	5.0	20	0	114	75-140	0
Naphthalene	19.19	0.14	5.0	20	0	96	55-160	0
n-Butylbenzene	20.17	0.09	1.0	20	0	101	75-145	0
n-Propylbenzene	19.02	0.16	1.0	20	0	95.1	76-116	0
o-Xylene	19.84	0.19	1.0	20	0	99.2	76-127	0
p-Isopropyltoluene	19.71	0.1	1.0	20	0	98.6	61-164	0
sec-Butylbenzene	19.22	0.11	1.0	20	0	96.1	80-134	0
Styrene	21.47	0.19	1.0	20	0	107	83-137	0
tert-Butylbenzene	20.33	0.1	1.0	20	0	102	70-130	0
Tetrachloroethene	21.05	0.28	1.0	20	0	105	68-166	0
Toluene	18.18	0.32	1.0	20	0	90.9	76-125	0
trans-1,2-Dichloroethene	21.94	0.48	1.0	20	0	110	80-140	0
trans-1,3-Dichloropropene	19.76	0.15	1.0	20	0	98.8	56-132	0
Trichloroethene	22.17	0.33	1.0	20	0	111	84-130	0
Trichlorofluoromethane	19.51	0.24	1.0	20	0	97.6	60-140	0
Vinyl chloride	19.02	0.53	1.0	20	0	95.1	50-136	0
Xylenes, Total	57.58	0.74	3.0	60	0	96	76-127	0
Surr: 1,2-Dichloroethane-d4	*19.63*	0	0	*20*	0	*98.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.93*	0	0	*20*	0	*105*	*85-115*	0
Surr: Toluene-d8	*20.07*	0	0	*20*	0	*100*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236094** Units: **µg/L** Analysis Date: **05/17/18 11:08 PM**
Client ID: Run ID: **VMS7_180517A** SeqNo: **5094568** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	23.2	0.22	0.74	20	0	116	73-114	0			S
1,1,1-Trichloroethane	24.44	0.36	1.2	20	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	23.1	0.19	0.62	20	0	116	75-130	0			
1,1,2-Trichloroethane	22.3	0.4	1.3	20	0	112	75-125	0			
1,1-Dichloroethane	21.72	0.31	1.0	20	0	109	75-133	0			
1,1-Dichloroethene	32.55	0.28	0.92	20	0	163	70-145	0			S
1,1-Dichloropropene	21.3	0.35	1.2	20	0	106	75-135	0			
1,2,3-Trichlorobenzene	22.34	0.17	0.55	20	0	112	70-140	0			
1,2,3-Trichloropropane	22.92	0.11	0.40	20	0	115	75-125	0			
1,2,4-Trichlorobenzene	22	0.21	0.71	20	0	110	70-135	0			
1,2,4-Trimethylbenzene	20.26	0.37	1.2	20	0	101	75-130	0			
1,2-Dibromo-3-chloropropane	25.95	0.97	3.2	20	0	130	60-130	0			
1,2-Dibromoethane	24.18	0.98	3.3	20	0	121	90-195	0			
1,2-Dichlorobenzene	21.64	0.22	0.73	20	0	108	70-130	0			
1,2-Dichloroethane	22.35	0.17	0.55	20	0	112	78-125	0			
1,2-Dichloropropane	22.63	0.25	0.83	20	0	113	75-125	0			
1,3,5-Trimethylbenzene	21.39	0.29	0.95	20	0	107	75-130	0			
1,3-Dichlorobenzene	21.24	0.29	0.96	20	0	106	75-130	0			
1,3-Dichloropropane	20.74	0.18	0.61	20	0	104	75-125	0			
1,4-Dichlorobenzene	21.55	0.21	0.71	20	0	108	75-130	0			
2,2-Dichloropropane	20.4	0.44	1.5	20	0	102	43-150	0			
2-Butanone	23.49	0.58	2.0	20	0	117	55-150	0			
2-Chlorotoluene	20.96	0.32	1.1	20	0	105	84-133	0			
2-Hexanone	19.92	0.13	0.42	20	0	99.6	60-135	0			
4-Chlorotoluene	21.53	0.28	0.95	20	0	108	80-125	0			
4-Methyl-2-pentanone	29.37	0.11	0.40	20	0	147	77-178	0			
Acetone	33.34	0.92	3.1	20	0	167	60-160	0			S
Benzene	21.9	0.3	1.0	20	0	110	85-125	0			
Bromobenzene	19.57	0.24	0.80	20	0	97.8	80-125	0			
Bromochloromethane	22.24	0.2	0.66	20	0	111	72-141	0			
Bromodichloromethane	23.06	0.23	0.78	20	0	115	75-125	0			
Bromoform	22.43	0.77	2.6	20	0	112	60-125	0			
Bromomethane	24.75	0.38	1.3	20	0	124	30-185	0			
Carbon disulfide	26.57	0.23	0.76	20	0	133	60-165	0			
Carbon tetrachloride	23.78	0.31	1.0	20	0	119	65-140	0			
Chlorobenzene	22.22	0.27	0.90	20	0	111	80-120	0			
Chloroethane	20.05	0.29	0.97	20	0	100	50-140	0			
Chloroform	23.48	0.26	0.86	20	0	117	80-130	0			
Chloromethane	18.66	0.17	0.57	20	0	93.3	46-148	0			
cis-1,2-Dichloroethene	23.06	0.25	0.85	20	0	115	75-134	0			
cis-1,3-Dichloropropene	22.45	0.39	1.3	20	0	112	70-130	0			
Dibromochloromethane	22.27	0.38	1.2	20	0	111	60-115	0			
Dibromomethane	23.26	0.25	0.83	20	0	116	85-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	20.7	0.13	0.44	20	0	104	20-120	0
Ethylbenzene	21.58	0.4	1.3	20	0	108	76-123	0
Hexachlorobutadiene	22.4	0.24	0.80	20	0	112	70-155	0
Isopropylbenzene	21.47	0.31	1.0	20	0	107	80-127	0
m,p-Xylene	40.9	0.98	3.3	40	0	102	75-130	0
Methyl tert-butyl ether	25.24	0.12	0.40	20	0	126	80-130	0
Methylene chloride	26.46	0.56	1.8	20	0	132	75-140	0
Naphthalene	21.16	0.18	0.59	20	0	106	55-160	0
n-Butylbenzene	22.35	0.22	0.73	20	0	112	75-145	0
n-Propylbenzene	20.6	0.24	0.81	20	0	103	83-135	0
o-Xylene	21.16	0.35	1.2	20	0	106	80-125	0
p-Isopropyltoluene	20.51	0.14	0.48	20	0	103	61-164	0
sec-Butylbenzene	20.62	0.29	0.98	20	0	103	80-134	0
Styrene	21.9	0.24	0.79	20	0	110	83-137	0
tert-Butylbenzene	21.93	0.34	1.2	20	0	110	70-130	0
Tetrachloroethene	21.76	0.27	0.91	20	0	109	68-166	0
Toluene	21.57	0.37	1.2	20	0	108	76-125	0
trans-1,2-Dichloroethene	22.89	0.28	0.93	20	0	114	80-140	0
trans-1,3-Dichloropropene	21.54	0.82	2.7	20	0	108	56-132	0
Trichloroethene	21.59	0.3	0.99	20	0	108	84-130	0
Trichlorofluoromethane	25.28	0.2	0.66	20	0	126	60-140	0
Vinyl chloride	22.53	0.2	0.68	20	0	113	50-136	0
Xylenes, Total	62.06	1.3	4.4	60	0	103	80-126	0
Surr: 1,2-Dichloroethane-d4	*20.31*	0	0	*20*	0	*102*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.71*	0	0	*20*	0	*93.6*	*80-110*	0
Surr: Dibromofluoromethane	*21.43*	0	0	*20*	0	*107*	*85-115*	0
Surr: Toluene-d8	*19.57*	0	0	*20*	0	*97.8*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **1805786-14A MS** Units: **µg/L** Analysis Date: **05/18/18 07:36 AM**
Client ID: **W-17A** Run ID: **VMS7_180517A** SeqNo: **5040180** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	518	7	25	500	0	104	73-114	0			
1,1,1-Trichloroethane	806.8	8.2	25	500	0	161	75-130	0			S
1,1,2,2-Tetrachloroethane	455	4.2	25	500	0	91	75-130	0			
1,1,2-Trichloroethane	495.2	5.5	25	500	0	99	75-125	0			
1,1-Dichloroethane	603	12	25	500	66.75	107	68-142	0			
1,1-Dichloroethene	776.8	9	25	500	0	155	70-145	0			S
1,1-Dichloropropene	587.5	7	25	500	0	118	75-135	0			
1,2,3-Trichlorobenzene	479.2	7.2	25	500	0	95.8	70-140	0			
1,2,3-Trichloropropane	457.8	7.2	25	500	0	91.6	75-125	0			
1,2,4-Trichlorobenzene	483.5	6.2	25	500	0	96.7	70-135	0			
1,2,4-Trimethylbenzene	456.2	2.8	25	500	0	91.2	75-130	0			
1,2-Dibromo-3-chloropropane	435.5	11	25	500	0	87.1	60-130	0			
1,2-Dibromoethane	494.8	4.2	25	500	0	99	67-155	0			
1,2-Dichlorobenzene	506.8	3	25	500	0	101	70-130	0			
1,2-Dichloroethane	515	2.8	25	500	0	103	78-125	0			
1,2-Dichloropropane	522.5	8.5	25	500	0	104	75-125	0			
1,3,5-Trimethylbenzene	470.5	3.8	25	500	0	94.1	75-130	0			
1,3-Dichlorobenzene	511.8	3.2	25	500	0	102	75-130	0			
1,3-Dichloropropane	487.2	3.5	25	500	0	97.4	75-125	0			
1,4-Dichlorobenzene	521	3.2	25	500	0	104	75-130	0			
2,2-Dichloropropane	434	7.8	25	500	0	86.8	43-150	0			
2-Butanone	446.2	12	120	500	0	89.2	55-150	0			
2-Chlorotoluene	493.5	3.5	25	500	0	98.7	76-117	0			
2-Hexanone	343.5	12	120	500	0	68.7	60-135	0			
4-Chlorotoluene	493.5	4.5	25	500	0	98.7	80-125	0			
4-Methyl-2-pentanone	504	13	25	500	31.25	94.6	77-178	0			
Acetone	750.5	12	250	500	153.8	119	60-160	0			
Benzene	552.8	10	25	500	14.75	108	85-125	0			
Bromobenzene	466.2	3.2	25	500	0	93.2	80-125	0			
Bromochloromethane	570.2	3.8	25	500	0	114	72-141	0			
Bromodichloromethane	530.2	5.5	25	500	0	106	75-125	0			
Bromoform	434.5	14	25	500	0	86.9	60-125	0			
Bromomethane	1296	7.2	25	500	0	259	30-185	0			S
Carbon disulfide	657.8	9.8	25	500	0	132	60-165	0			
Carbon tetrachloride	575.2	8	25	500	0	115	65-140	0			
Chlorobenzene	514.5	5.2	25	500	0	103	80-120	0			
Chloroethane	2009	17	25	500	1732	55.4	50-140	0			
Chloroform	567.2	12	25	500	0	113	80-130	0			
Chloromethane	408.2	17	25	500	0	81.6	46-148	0			
cis-1,2-Dichloroethene	641	9.5	25	500	3.75	127	75-134	0			
cis-1,3-Dichloropropene	496	3.2	25	500	0	99.2	70-130	0			
Dibromochloromethane	457.2	5	25	500	0	91.4	60-115	0			
Dibromomethane	531.5	4	25	500	0	106	85-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	459.2	7.5	25	500	0	91.8	20-120	0	
Diisopropyl ether	481.5	9.5	120	500	0	96.3	58-133	0	
Ethylbenzene	502.5	7.2	25	500	8.25	98.8	76-123	0	
Hexachlorobutadiene	547	3.8	25	500	0	109	70-155	0	
Isopropylbenzene	522	4.2	25	500	0	104	80-127	0	
m,p-Xylene	997	13	50	1000	19.75	97.7	75-130	0	
Methyl tert-butyl ether	513.5	5.2	25	500	0	103	68-129	0	
Methylene chloride	658.2	4	120	500	0	132	75-140	0	
Naphthalene	407.8	3.5	120	500	0	81.6	55-160	0	
n-Butylbenzene	499.5	2.2	25	500	0	99.9	75-145	0	
n-Propylbenzene	461.2	4	25	500	0	92.2	76-116	0	
o-Xylene	498	4.8	25	500	12	97.2	76-127	0	
p-Isopropyltoluene	528	2.5	25	500	0	106	61-164	0	
sec-Butylbenzene	518	2.8	25	500	0	104	80-134	0	
Styrene	536	4.8	25	500	0	107	83-137	0	
tert-Butylbenzene	494.5	2.5	25	500	0	98.9	70-130	0	
Tetrachloroethene	578.5	7	25	500	0	116	68-166	0	
Toluene	991.5	8	25	500	681.5	62	76-125	0	S
trans-1,2-Dichloroethene	643.5	12	25	500	49.5	119	80-140	0	
trans-1,3-Dichloropropene	449.2	3.8	25	500	0	89.8	56-132	0	
Trichloroethene	843.8	8.2	25	500	0	169	84-130	0	S
Trichlorofluoromethane	598.5	6	25	500	0	120	60-140	0	
Vinyl chloride	541	13	25	500	0	108	50-136	0	
Xylenes, Total	1495	18	75	1500	31.75	97.6	76-127	0	
Surr: 1,2-Dichloroethane-d4	*521.2*	0	0	*500*	0	*104*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*490.8*	0	0	*500*	0	*98.2*	*80-110*	0	
Surr: Dibromofluoromethane	*529.8*	0	0	*500*	0	*106*	*85-115*	0	
Surr: Toluene-d8	*482.5*	0	0	*500*	0	*96.5*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **1805786-14A MS** Units: **µg/L** Analysis Date: **05/18/18 07:36 AM**

Client ID: **W-17A** Run ID: **VMS7_180517A** SeqNo: **5094578** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	518	5.6	18	500	0	104	73-114	0			
1,1,1-Trichloroethane	806.8	9	30	500	0	161	75-130	0			S
1,1,2,2-Tetrachloroethane	455	4.6	16	500	0	91	75-130	0			
1,1,2-Trichloroethane	495.2	10	33	500	0	99	75-125	0			
1,1-Dichloroethane	603	7.7	26	500	69.5	107	75-133	0			
1,1-Dichloroethene	776.8	6.9	23	500	0	155	70-145	0			S
1,1-Dichloropropene	587.5	8.8	30	500	0	118	75-135	0			
1,2,3-Trichlorobenzene	479.2	4.2	14	500	0	95.8	70-140	0			
1,2,3-Trichloropropane	457.8	2.8	10	500	0	91.6	75-125	0			
1,2,4-Trichlorobenzene	483.5	5.4	18	500	0	96.7	70-135	0			
1,2,4-Trimethylbenzene	456.2	9.3	31	500	0	91.2	75-130	0			
1,2-Dibromo-3-chloropropane	435.5	24	81	500	0	87.1	60-130	0			
1,2-Dibromoethane	494.8	25	82	500	0	99	90-195	0			
1,2-Dichlorobenzene	506.8	5.4	18	500	0	101	70-130	0			
1,2-Dichloroethane	515	4.2	14	500	0	103	78-125	0			
1,2-Dichloropropane	522.5	6.2	21	500	0	104	75-125	0			
1,3,5-Trimethylbenzene	470.5	7.2	24	500	0	94.1	75-130	0			
1,3-Dichlorobenzene	511.8	7.2	24	500	0	102	75-130	0			
1,3-Dichloropropane	487.2	4.6	15	500	0	97.4	75-125	0			
1,4-Dichlorobenzene	521	5.3	18	500	0	104	75-130	0			
2,2-Dichloropropane	434	11	37	500	0	86.8	43-150	0			
2-Butanone	446.2	15	49	500	0	89.2	55-150	0			
2-Chlorotoluene	493.5	8.1	27	500	0	98.7	84-133	0			
2-Hexanone	343.5	3.2	10	500	0	68.7	60-135	0			
4-Chlorotoluene	493.5	7.1	24	500	0	98.7	80-125	0			
4-Methyl-2-pentanone	504	2.8	10	500	40.5	92.7	77-178	0			
Acetone	750.5	23	76	500	214.2	107	60-160	0			
Benzene	552.8	7.6	25	500	15.75	107	85-125	0			
Bromobenzene	466.2	6	20	500	0	93.2	80-125	0			
Bromochloromethane	570.2	4.9	16	500	0	114	72-141	0			
Bromodichloromethane	530.2	5.8	20	500	0	106	75-125	0			
Bromoform	434.5	19	64	500	0	86.9	60-125	0			
Bromomethane	1296	9.4	32	500	0	259	30-185	0			S
Carbon disulfide	657.8	5.7	19	500	0	132	60-165	0			
Carbon tetrachloride	575.2	7.8	26	500	0	115	65-140	0			
Chlorobenzene	514.5	6.8	22	500	0	103	80-120	0			
Chloroethane	2009	7.3	24	500	1559	90	50-140	0			
Chloroform	567.2	6.4	22	500	0	113	80-130	0			
Chloromethane	408.2	4.3	14	500	0	81.6	46-148	0			
cis-1,2-Dichloroethene	641	6.4	21	500	0	128	75-134	0			
cis-1,3-Dichloropropene	496	9.8	33	500	0	99.2	70-130	0			
Dibromochloromethane	457.2	9.4	31	500	0	91.4	60-115	0			
Dibromomethane	531.5	6.2	21	500	0	106	85-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	459.2	3.3	11	500	0	91.8	20-120	0	
Ethylbenzene	502.5	10	34	500	0	100	76-123	0	
Hexachlorobutadiene	547	6	20	500	0	109	70-155	0	
Isopropylbenzene	522	7.8	26	500	0	104	80-127	0	
m,p-Xylene	997	24	82	1000	21.25	97.6	75-130	0	
Methyl tert-butyl ether	513.5	2.9	10	500	0	103	80-130	0	
Methylene chloride	658.2	14	46	500	0	132	75-140	0	
Naphthalene	407.8	4.4	15	500	0	81.6	55-160	0	B
n-Butylbenzene	499.5	5.4	18	500	0	99.9	75-145	0	
n-Propylbenzene	461.2	6.1	20	500	0	92.2	83-135	0	
o-Xylene	498	8.8	30	500	12.75	97	80-125	0	
p-Isopropyltoluene	528	3.6	12	500	0	106	61-164	0	
sec-Butylbenzene	518	7.4	24	500	0	104	80-134	0	
Styrene	536	6	20	500	0	107	83-137	0	
tert-Butylbenzene	494.5	8.6	29	500	0	98.9	70-130	0	
Tetrachloroethene	578.5	6.8	23	500	0	116	68-166	0	
Toluene	991.5	9.2	30	500	808.5	36.6	76-125	0	S
trans-1,2-Dichloroethene	643.5	7	23	500	51.5	118	80-140	0	
trans-1,3-Dichloropropene	449.2	20	68	500	0	89.8	56-132	0	
Trichloroethene	843.8	7.4	25	500	0	169	84-130	0	S
Trichlorofluoromethane	598.5	5	16	500	0	120	60-140	0	
Vinyl chloride	541	5.1	17	500	0	108	50-136	0	
Xylenes, Total	1495	33	110	1500	12.75	98.8	80-126	0	
Surr: 1,2-Dichloroethane-d4	*521.2*	0	0	*500*	0	*104*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*490.8*	0	0	*500*	0	*98.2*	*80-110*	0	
Surr: Dibromofluoromethane	*529.8*	0	0	*500*	0	*106*	*85-115*	0	
Surr: Toluene-d8	*482.5*	0	0	*500*	0	*96.5*	*85-110*	0	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805786-14A MSD** Units: **µg/L** Analysis Date: **05/18/18 07:57 AM**

Client ID: **W-17A** Run ID: **VMS7_180517A** SeqNo: **5040181** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	570.8	7	25	500	0	114	73-114	518	9.69	30	S
1,1,1-Trichloroethane	676.2	8.2	25	500	0	135	75-130	806.8	17.6	30	S
1,1,2,2-Tetrachloroethane	508.2	4.2	25	500	0	102	75-130	455	11.1	30	
1,1,2-Trichloroethane	523.5	5.5	25	500	0	105	75-125	495.2	5.55	30	
1,1-Dichloroethane	618.5	12	25	500	66.75	110	68-142	603	2.54	30	
1,1-Dichloroethene	723	9	25	500	0	145	70-145	776.8	7.17	30	
1,1-Dichloropropene	574.8	7	25	500	0	115	75-135	587.5	2.19	30	
1,2,3-Trichlorobenzene	512.8	7.2	25	500	0	103	70-140	479.2	6.75	30	
1,2,3-Trichloropropane	524.5	7.2	25	500	0	105	75-125	457.8	13.6	30	
1,2,4-Trichlorobenzene	493.8	6.2	25	500	0	98.8	70-135	483.5	2.1	30	
1,2,4-Trimethylbenzene	510.8	2.8	25	500	0	102	75-130	456.2	11.3	30	
1,2-Dibromo-3-chloropropane	470	11	25	500	0	94	60-130	435.5	7.62	30	
1,2-Dibromoethane	540.8	4.2	25	500	0	108	67-155	494.8	8.88	30	
1,2-Dichlorobenzene	534	3	25	500	0	107	70-130	506.8	5.24	30	
1,2-Dichloroethane	553.5	2.8	25	500	0	111	78-125	515	7.21	30	
1,2-Dichloropropane	552.8	8.5	25	500	0	111	75-125	522.5	5.63	30	
1,3,5-Trimethylbenzene	516.2	3.8	25	500	0	103	75-130	470.5	9.27	30	
1,3-Dichlorobenzene	527.8	3.2	25	500	0	106	75-130	511.8	3.08	30	
1,3-Dichloropropane	539.8	3.5	25	500	0	108	75-125	487.2	10.2	30	
1,4-Dichlorobenzene	537.8	3.2	25	500	0	108	75-130	521	3.16	30	
2,2-Dichloropropane	420	7.8	25	500	0	84	43-150	434	3.28	30	
2-Butanone	483.8	12	120	500	0	96.8	55-150	446.2	8.06	30	
2-Chlorotoluene	536	3.5	25	500	0	107	76-117	493.5	8.26	30	
2-Hexanone	391.5	12	120	500	0	78.3	60-135	343.5	13.1	30	
4-Chlorotoluene	527	4.5	25	500	0	105	80-125	493.5	6.57	30	
4-Methyl-2-pentanone	523.8	13	25	500	31.25	98.5	77-178	504	3.84	30	
Acetone	707	12	250	500	153.8	111	60-160	750.5	5.97	30	
Benzene	579	10	25	500	14.75	113	85-125	552.8	4.64	30	
Bromobenzene	483.8	3.2	25	500	0	96.8	80-125	466.2	3.68	30	
Bromochloromethane	567	3.8	25	500	0	113	72-141	570.2	0.572	30	
Bromodichloromethane	566	5.5	25	500	0	113	75-125	530.2	6.52	30	
Bromoform	474	14	25	500	0	94.8	60-125	434.5	8.7	30	
Bromomethane	1232	7.2	25	500	0	246	30-185	1296	4.98	30	S
Carbon disulfide	692	9.8	25	500	0	138	60-165	657.8	5.08	30	
Carbon tetrachloride	581.8	8	25	500	0	116	65-140	575.2	1.12	30	
Chlorobenzene	532.5	5.2	25	500	0	106	80-120	514.5	3.44	30	
Chloroethane	1998	17	25	500	1732	53.2	50-140	2009	0.537	30	
Chloroform	573.5	12	25	500	0	115	80-130	567.2	1.1	30	
Chloromethane	409.2	17	25	500	0	81.8	46-148	408.2	0.245	30	
cis-1,2-Dichloroethene	582.8	9.5	25	500	3.75	116	75-134	641	9.52	30	
cis-1,3-Dichloropropene	511	3.2	25	500	0	102	70-130	496	2.98	30	
Dibromochloromethane	495	5	25	500	0	99	60-115	457.2	7.93	30	
Dibromomethane	542.5	4	25	500	0	108	85-125	531.5	2.05	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	465.5	7.5	25	500	0	93.1	20-120	459.2	1.35	30	
Diisopropyl ether	508.8	9.5	120	500	0	102	58-133	481.5	5.5	30	
Ethylbenzene	526.8	7.2	25	500	8.25	104	76-123	502.5	4.71	30	
Hexachlorobutadiene	555.2	3.8	25	500	0	111	70-155	547	1.5	30	
Isopropylbenzene	537	4.2	25	500	0	107	80-127	522	2.83	30	
m,p-Xylene	1047	13	50	1000	19.75	103	75-130	997	4.87	30	
Methyl tert-butyl ether	520.5	5.2	25	500	0	104	68-129	513.5	1.35	30	
Methylene chloride	630.2	4	120	500	0	126	75-140	658.2	4.35	30	
Naphthalene	444.5	3.5	120	500	0	88.9	55-160	407.8	8.62	30	
n-Butylbenzene	519.2	2.2	25	500	0	104	75-145	499.5	3.88	30	
n-Propylbenzene	505	4	25	500	0	101	76-116	461.2	9.06	30	
o-Xylene	541.8	4.8	25	500	12	106	76-127	498	8.42	30	
p-Isopropyltoluene	539.2	2.5	25	500	0	108	61-164	528	2.11	30	
sec-Butylbenzene	537.8	2.8	25	500	0	108	80-134	518	3.74	30	
Styrene	589	4.8	25	500	0	118	83-137	536	9.42	30	
tert-Butylbenzene	523.5	2.5	25	500	0	105	70-130	494.5	5.7	30	
Tetrachloroethene	588	7	25	500	0	118	68-166	578.5	1.63	30	
Toluene	1057	8	25	500	681.5	75.2	76-125	991.5	6.42	30	S
trans-1,2-Dichloroethene	659.8	12	25	500	49.5	122	80-140	643.5	2.49	30	
trans-1,3-Dichloropropene	464.8	3.8	25	500	0	93	56-132	449.2	3.39	30	
Trichloroethene	663	8.2	25	500	0	133	84-130	843.8	24	30	S
Trichlorofluoromethane	626.8	6	25	500	0	125	60-140	598.5	4.61	30	
Vinyl chloride	564	13	25	500	0	113	50-136	541	4.16	30	
Xylenes, Total	1588	18	75	1500	31.75	104	76-127	1495	6.06	30	
Surr: 1,2-Dichloroethane-d4	*512*	0	0	*500*	0	*102*	*75-120*	521.2	*1.79*	*30*	
Surr: 4-Bromofluorobenzene	*498*	0	0	*500*	0	*99.6*	*80-110*	490.8	*1.47*	*30*	
Surr: Dibromofluoromethane	*517.8*	0	0	*500*	0	*104*	*85-115*	529.8	*2.29*	*30*	
Surr: Toluene-d8	*482.2*	0	0	*500*	0	*96.4*	*85-110*	482.5	*0.0518*	*30*	

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1805786-14A MSD** Units: **µg/L** Analysis Date: **05/18/18 07:57 AM**

Client ID: **W-17A** Run ID: **VMS7_180517A** SeqNo: **5094579** Prep Date: DF: **25**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	570.8	5.6	18	500	0	114	73-114	518	9.69	30	S
1,1,1-Trichloroethane	676.2	9	30	500	0	135	75-130	806.8	17.6	30	S
1,1,2,2-Tetrachloroethane	508.2	4.6	16	500	0	102	75-130	455	11.1	30	
1,1,2-Trichloroethane	523.5	10	33	500	0	105	75-125	495.2	5.55	30	
1,1-Dichloroethane	618.5	7.7	26	500	69.5	110	75-133	603	2.54	30	
1,1-Dichloroethene	723	6.9	23	500	0	145	70-145	776.8	7.17	30	
1,1-Dichloropropene	574.8	8.8	30	500	0	115	75-135	587.5	2.19	30	
1,2,3-Trichlorobenzene	512.8	4.2	14	500	0	103	70-140	479.2	6.75	30	
1,2,3-Trichloropropane	524.5	2.8	10	500	0	105	75-125	457.8	13.6	30	
1,2,4-Trichlorobenzene	493.8	5.4	18	500	0	98.8	70-135	483.5	2.1	30	
1,2,4-Trimethylbenzene	510.8	9.3	31	500	0	102	75-130	456.2	11.3	30	
1,2-Dibromo-3-chloropropane	470	24	81	500	0	94	60-130	435.5	7.62	30	
1,2-Dibromoethane	540.8	25	82	500	0	108	90-195	494.8	8.88	30	
1,2-Dichlorobenzene	534	5.4	18	500	0	107	70-130	506.8	5.24	30	
1,2-Dichloroethane	553.5	4.2	14	500	0	111	78-125	515	7.21	30	
1,2-Dichloropropane	552.8	6.2	21	500	0	111	75-125	522.5	5.63	30	
1,3,5-Trimethylbenzene	516.2	7.2	24	500	0	103	75-130	470.5	9.27	30	
1,3-Dichlorobenzene	527.8	7.2	24	500	0	106	75-130	511.8	3.08	30	
1,3-Dichloropropane	539.8	4.6	15	500	0	108	75-125	487.2	10.2	30	
1,4-Dichlorobenzene	537.8	5.3	18	500	0	108	75-130	521	3.16	30	
2,2-Dichloropropane	420	11	37	500	0	84	43-150	434	3.28	30	
2-Butanone	483.8	15	49	500	0	96.8	55-150	446.2	8.06	30	
2-Chlorotoluene	536	8.1	27	500	0	107	84-133	493.5	8.26	30	
2-Hexanone	391.5	3.2	10	500	0	78.3	60-135	343.5	13.1	30	
4-Chlorotoluene	527	7.1	24	500	0	105	80-125	493.5	6.57	30	
4-Methyl-2-pentanone	523.8	2.8	10	500	40.5	96.6	77-178	504	3.84	30	
Acetone	707	23	76	500	214.2	98.6	60-160	750.5	5.97	30	
Benzene	579	7.6	25	500	15.75	113	85-125	552.8	4.64	30	
Bromobenzene	483.8	6	20	500	0	96.8	80-125	466.2	3.68	30	
Bromochloromethane	567	4.9	16	500	0	113	72-141	570.2	0.572	30	
Bromodichloromethane	566	5.8	20	500	0	113	75-125	530.2	6.52	30	
Bromoform	474	19	64	500	0	94.8	60-125	434.5	8.7	30	
Bromomethane	1232	9.4	32	500	0	246	30-185	1296	4.98	30	S
Carbon disulfide	692	5.7	19	500	0	138	60-165	657.8	5.08	30	
Carbon tetrachloride	581.8	7.8	26	500	0	116	65-140	575.2	1.12	30	
Chlorobenzene	532.5	6.8	22	500	0	106	80-120	514.5	3.44	30	
Chloroethane	1998	7.3	24	500	1559	87.8	50-140	2009	0.537	30	
Chloroform	573.5	6.4	22	500	0	115	80-130	567.2	1.1	30	
Chloromethane	409.2	4.3	14	500	0	81.8	46-148	408.2	0.245	30	
cis-1,2-Dichloroethene	582.8	6.4	21	500	0	117	75-134	641	9.52	30	
cis-1,3-Dichloropropene	511	9.8	33	500	0	102	70-130	496	2.98	30	
Dibromochloromethane	495	9.4	31	500	0	99	60-115	457.2	7.93	30	
Dibromomethane	542.5	6.2	21	500	0	108	85-125	531.5	2.05	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236094** Instrument ID **VMS7** Method: **SW8260C**

Dichlorodifluoromethane	465.5	3.3	11	500	0	93.1	20-120	459.2	1.35	30	
Ethylbenzene	526.8	10	34	500	0	105	76-123	502.5	4.71	30	
Hexachlorobutadiene	555.2	6	20	500	0	111	70-155	547	1.5	30	
Isopropylbenzene	537	7.8	26	500	0	107	80-127	522	2.83	30	
m,p-Xylene	1047	24	82	1000	21.25	103	75-130	997	4.87	30	
Methyl tert-butyl ether	520.5	2.9	10	500	0	104	80-130	513.5	1.35	30	
Methylene chloride	630.2	14	46	500	0	126	75-140	658.2	4.35	30	
Naphthalene	444.5	4.4	15	500	0	88.9	55-160	407.8	8.62	30	B
n-Butylbenzene	519.2	5.4	18	500	0	104	75-145	499.5	3.88	30	
n-Propylbenzene	505	6.1	20	500	0	101	83-135	461.2	9.06	30	
o-Xylene	541.8	8.8	30	500	12.75	106	80-125	498	8.42	30	
p-Isopropyltoluene	539.2	3.6	12	500	0	108	61-164	528	2.11	30	
sec-Butylbenzene	537.8	7.4	24	500	0	108	80-134	518	3.74	30	
Styrene	589	6	20	500	0	118	83-137	536	9.42	30	
tert-Butylbenzene	523.5	8.6	29	500	0	105	70-130	494.5	5.7	30	
Tetrachloroethene	588	6.8	23	500	0	118	68-166	578.5	1.63	30	
Toluene	1057	9.2	30	500	808.5	49.8	76-125	991.5	6.42	30	S
trans-1,2-Dichloroethene	659.8	7	23	500	51.5	122	80-140	643.5	2.49	30	
trans-1,3-Dichloropropene	464.8	20	68	500	0	93	56-132	449.2	3.39	30	
Trichloroethene	663	7.4	25	500	0	133	84-130	843.8	24	30	S
Trichlorofluoromethane	626.8	5	16	500	0	125	60-140	598.5	4.61	30	
Vinyl chloride	564	5.1	17	500	0	113	50-136	541	4.16	30	
Xylenes, Total	1588	33	110	1500	12.75	105	80-126	1495	6.06	30	
Surr: 1,2-Dichloroethane-d4	*512*	0	0	*500*	0	*102*	*75-120*	521.2	*1.79*	*30*	
Surr: 4-Bromofluorobenzene	*498*	0	0	*500*	0	*99.6*	*80-110*	490.8	*1.47*	*30*	
Surr: Dibromofluoromethane	*517.8*	0	0	*500*	0	*104*	*85-115*	529.8	*2.29*	*30*	
Surr: Toluene-d8	*482.2*	0	0	*500*	0	*96.4*	*85-110*	482.5	*0.0518*	*30*	

The following samples were analyzed in this batch:

1805786-14A	1805786-15A	1805786-22A
1805786-23A	1805786-29A	1805786-30A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:52 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041076** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
Trichloroethene	U	0.33	1.0								
Surr: 1,2-Dichloroethane-d4	*19.93*	0	0	*20*	0	*99.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.69*	0	0	*20*	0	*98.4*	*80-110*	0			
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.68*	0	0	*20*	0	*98.4*	*85-110*	0			

MBLK Sample ID: **VBLKSW-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:52 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093040** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.36	1.2								
Trichloroethene	U	0.3	0.99								
Surr: 1,2-Dichloroethane-d4	*19.93*	0	0	*20*	0	*99.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.69*	0	0	*20*	0	*98.4*	*80-110*	0			
Surr: Dibromofluoromethane	*20.29*	0	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.68*	0	0	*20*	0	*98.4*	*85-110*	0			

LCS Sample ID: **VLCSW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:04 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041075** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.35	0.33	1.0	20	0	96.8	75-130	0			
Trichloroethene	19.28	0.33	1.0	20	0	96.4	84-130	0			
Surr: 1,2-Dichloroethane-d4	*19.66*	0	0	*20*	0	*98.3*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.57*	0	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.37*	0	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	0	*20*	0	*98.1*	*85-110*	0			

LCS Sample ID: **VLCSW1-180518-R236129** Units: **µg/L** Analysis Date: **05/18/18 10:04 AM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093039** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.35	0.36	1.2	20	0	96.8	75-130	0			
Trichloroethene	19.28	0.3	0.99	20	0	96.4	84-130	0			
Surr: 1,2-Dichloroethane-d4	*19.66*	0	0	*20*	0	*98.3*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.57*	0	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*20.37*	0	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	0	*20*	0	*98.1*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236129** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/18/18 05:30 PM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041559** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2156	33	100	2000	0	108	75-130	0			
Trichloroethene	2028	33	100	2000	0	101	84-130	0			
Surr: 1,2-Dichloroethane-d4	*1875*	0	0	*2000*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1929*	0	0	*2000*	0	*96.4*	*80-110*	0			
Surr: Dibromofluoromethane	*2060*	0	0	*2000*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

MS Sample ID: **1805785-07A MS** Units: **µg/L** Analysis Date: **05/18/18 05:30 PM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093046** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2156	36	120	2000	0	108	75-130	0			
Trichloroethene	2028	30	99	2000	0	101	84-130	0			
Surr: 1,2-Dichloroethane-d4	*1875*	0	0	*2000*	0	*93.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1929*	0	0	*2000*	0	*96.4*	*80-110*	0			
Surr: Dibromofluoromethane	*2060*	0	0	*2000*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*1899*	0	0	*2000*	0	*95*	*85-110*	0			

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/18/18 05:46 PM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5041560** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2220	33	100	2000	0	111	75-130	2156	2.93	30	
Trichloroethene	2137	33	100	2000	0	107	84-130	2028	5.23	30	
Surr: 1,2-Dichloroethane-d4	*1981*	0	0	*2000*	0	*99*	*75-120*	1875	*5.5*	*30*	
Surr: 4-Bromofluorobenzene	*1946*	0	0	*2000*	0	*97.3*	*80-110*	1929	*0.877*	*30*	
Surr: Dibromofluoromethane	*2003*	0	0	*2000*	0	*100*	*85-115*	2060	*2.81*	*30*	
Surr: Toluene-d8	*1939*	0	0	*2000*	0	*97*	*85-110*	1899	*2.08*	*30*	

MSD Sample ID: **1805785-07A MSD** Units: **µg/L** Analysis Date: **05/18/18 05:46 PM**
Client ID: Run ID: **VMS8_180518A** SeqNo: **5093048** Prep Date: DF: **100**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2220	36	120	2000	0	111	75-130	2156	2.93	30	
Trichloroethene	2137	30	99	2000	0	107	84-130	2028	5.23	30	
Surr: 1,2-Dichloroethane-d4	*1981*	0	0	*2000*	0	*99*	*75-120*	1875	*5.5*	*30*	
Surr: 4-Bromofluorobenzene	*1946*	0	0	*2000*	0	*97.3*	*80-110*	1929	*0.877*	*30*	
Surr: Dibromofluoromethane	*2003*	0	0	*2000*	0	*100*	*85-115*	2060	*2.81*	*30*	
Surr: Toluene-d8	*1939*	0	0	*2000*	0	*97*	*85-110*	1899	*2.08*	*30*	

The following samples were analyzed in this batch: 1805786-23A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180417-R236164** Units: **µg/L** Analysis Date: **05/18/18 02:22 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5092988** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*18.78*	0	0	*20*	0	*93.9*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.74*	0	0	*20*	0	*98.7*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236164** Units: **µg/L** Analysis Date: **05/18/18 01:34 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5092986** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.11	0.22	0.74	20	0	101	73-114	0			
1,1,1-Trichloroethane	19.99	0.36	1.2	20	0	100	75-130	0			
1,1,2,2-Tetrachloroethane	21.61	0.19	0.62	20	0	108	75-130	0			
1,1,2-Trichloroethane	18.31	0.4	1.3	20	0	91.6	75-125	0			
1,1-Dichloroethane	18.39	0.31	1.0	20	0	92	75-133	0			
1,1-Dichloroethene	18.85	0.28	0.92	20	0	94.2	70-145	0			
1,1-Dichloropropene	18.1	0.35	1.2	20	0	90.5	75-135	0			
1,2,3-Trichlorobenzene	22.22	0.17	0.55	20	0	111	70-140	0			
1,2,3-Trichloropropane	19.09	0.11	0.40	20	0	95.4	75-125	0			
1,2,4-Trichlorobenzene	21.9	0.21	0.71	20	0	110	70-135	0			
1,2,4-Trimethylbenzene	20.04	0.37	1.2	20	0	100	75-130	0			
1,2-Dibromo-3-chloropropane	19.82	0.97	3.2	20	0	99.1	60-130	0			
1,2-Dibromoethane	20.34	0.98	3.3	20	0	102	90-195	0			
1,2-Dichlorobenzene	21.66	0.22	0.73	20	0	108	70-130	0			
1,2-Dichloroethane	18.34	0.17	0.55	20	0	91.7	78-125	0			
1,2-Dichloropropane	18.92	0.25	0.83	20	0	94.6	75-125	0			
1,3,5-Trimethylbenzene	20.13	0.29	0.95	20	0	101	75-130	0			
1,3-Dichlorobenzene	21.36	0.29	0.96	20	0	107	75-130	0			
1,3-Dichloropropane	18.91	0.18	0.61	20	0	94.6	75-125	0			
1,4-Dichlorobenzene	21.81	0.21	0.71	20	0	109	75-130	0			
2,2-Dichloropropane	16.82	0.44	1.5	20	0	84.1	43-150	0			
2-Butanone	17.36	0.58	2.0	20	0	86.8	55-150	0			
2-Chlorotoluene	21.02	0.32	1.1	20	0	105	84-133	0			
4-Chlorotoluene	20.39	0.28	0.95	20	0	102	80-125	0			
4-Methyl-2-pentanone	28.71	0.11	0.40	20	0	144	77-178	0			
Acetone	16.84	0.92	3.1	20	0	84.2	60-160	0			
Benzene	19.61	0.3	1.0	20	0	98	85-125	0			
Bromobenzene	19.82	0.24	0.80	20	0	99.1	80-125	0			
Bromochloromethane	17.58	0.2	0.66	20	0	87.9	72-141	0			
Bromodichloromethane	19.27	0.23	0.78	20	0	96.4	75-125	0			
Bromoform	20.37	0.77	2.6	20	0	102	60-125	0			
Bromomethane	22.31	0.38	1.3	20	0	112	30-185	0			
Carbon tetrachloride	19.17	0.31	1.0	20	0	95.8	65-140	0			
Chlorobenzene	19.79	0.27	0.90	20	0	99	80-120	0			
Chloroethane	17.93	0.29	0.97	20	0	89.6	50-140	0			
Chloroform	18.14	0.26	0.86	20	0	90.7	80-130	0			
Chloromethane	15.6	0.17	0.57	20	0	78	46-148	0			
cis-1,2-Dichloroethene	19.31	0.25	0.85	20	0	96.6	75-134	0			
cis-1,3-Dichloropropene	19.29	0.39	1.3	20	0	96.4	70-130	0			
Dibromochloromethane	19.21	0.38	1.2	20	0	96	60-115	0			
Dibromomethane	18.88	0.25	0.83	20	0	94.4	85-125	0			
Dichlorodifluoromethane	13.68	0.13	0.44	20	0	68.4	20-120	0			
Ethylbenzene	20.47	0.4	1.3	20	0	102	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	23.24	0.24	0.80	20	0	116	70-155	0
Isopropylbenzene	19.75	0.31	1.0	20	0	98.8	80-127	0
m,p-Xylene	40.66	0.98	3.3	40	0	102	75-130	0
Methyl tert-butyl ether	21.06	0.12	0.40	20	0	105	80-130	0
Methylene chloride	17.27	0.56	1.8	20	0	86.4	75-140	0
Naphthalene	21.26	0.18	0.59	20	0	106	55-160	0
n-Butylbenzene	20.84	0.22	0.73	20	0	104	75-145	0
n-Propylbenzene	20.25	0.24	0.81	20	0	101	83-135	0
o-Xylene	19.63	0.35	1.2	20	0	98.2	80-125	0
p-Isopropyltoluene	20.83	0.14	0.48	20	0	104	61-164	0
sec-Butylbenzene	20.65	0.29	0.98	20	0	103	80-134	0
Styrene	20.45	0.24	0.79	20	0	102	83-137	0
tert-Butylbenzene	18.8	0.34	1.2	20	0	94	70-130	0
Tetrachloroethene	22.05	0.27	0.91	20	0	110	68-166	0
Toluene	20.42	0.37	1.2	20	0	102	76-125	0
trans-1,2-Dichloroethene	19.05	0.28	0.93	20	0	95.2	80-140	0
trans-1,3-Dichloropropene	18	0.82	2.7	20	0	90	56-132	0
Trichloroethene	19.75	0.3	0.99	20	0	98.8	84-130	0
Trichlorofluoromethane	17.47	0.2	0.66	20	0	87.4	60-140	0
Vinyl chloride	16.52	0.2	0.68	20	0	82.6	50-136	0
Xylenes, Total	60.29	1.3	4.4	60	0	100	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.92*	0	0	*20*	0	*99.6*	*80-110*	0
Surr: Dibromofluoromethane	*20.3*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.85*	0	0	*20*	0	*99.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/18/18 08:14 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5093012** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19220	220	740	20000	0	96.1	73-114	0			
1,1,1-Trichloroethane	22710	360	1,200	20000	2650	100	75-130	0			
1,1,2,2-Tetrachloroethane	21410	190	620	20000	0	107	75-130	0			
1,1,2-Trichloroethane	18260	400	1,300	20000	0	91.3	75-125	0			
1,1-Dichloroethane	20160	310	1,000	20000	1640	92.6	75-133	0			
1,1-Dichloroethene	21570	280	920	20000	0	108	70-145	0			
1,1-Dichloropropene	18050	350	1,200	20000	0	90.2	75-135	0			
1,2,3-Trichlorobenzene	18890	170	550	20000	0	94.4	70-140	0			
1,2,3-Trichloropropane	18160	110	400	20000	0	90.8	75-125	0			
1,2,4-Trichlorobenzene	18110	210	710	20000	0	90.6	70-135	0			
1,2,4-Trimethylbenzene	19000	370	1,200	20000	0	95	75-130	0			
1,2-Dibromo-3-chloropropane	18720	970	3,200	20000	0	93.6	60-130	0			
1,2-Dibromoethane	20450	980	3,300	20000	0	102	90-195	0			
1,2-Dichlorobenzene	19190	220	730	20000	0	96	70-130	0			
1,2-Dichloroethane	18320	170	550	20000	0	91.6	78-125	0			
1,2-Dichloropropane	18300	250	830	20000	0	91.5	75-125	0			
1,3,5-Trimethylbenzene	19770	290	950	20000	0	98.8	75-130	0			
1,3-Dichlorobenzene	19470	290	960	20000	0	97.4	75-130	0			
1,3-Dichloropropane	18260	180	610	20000	0	91.3	75-125	0			
1,4-Dichlorobenzene	19260	210	710	20000	0	96.3	75-130	0			
2,2-Dichloropropane	13150	440	1,500	20000	0	65.8	43-150	0			
2-Butanone	32280	580	2,000	20000	15800	82.4	55-150	0			
2-Chlorotoluene	19790	320	1,100	20000	0	99	84-133	0			
4-Chlorotoluene	19110	280	950	20000	0	95.6	80-125	0			
4-Methyl-2-pentanone	37620	110	400	20000	6900	154	77-178	0			
Acetone	98320	920	3,100	20000	80430	89.4	60-160	0			O
Benzene	19370	300	1,000	20000	0	96.8	85-125	0			
Bromobenzene	19040	240	800	20000	0	95.2	80-125	0			
Bromochloromethane	19360	200	660	20000	0	96.8	72-141	0			
Bromodichloromethane	18790	230	780	20000	0	94	75-125	0			
Bromoform	19780	770	2,600	20000	0	98.9	60-125	0			
Bromomethane	49490	380	1,300	20000	0	247	30-185	0			S
Carbon tetrachloride	19600	310	1,000	20000	0	98	65-140	0			
Chlorobenzene	19010	270	900	20000	0	95	80-120	0			
Chloroethane	21100	290	970	20000	0	106	50-140	0			
Chloroform	18300	260	860	20000	0	91.5	80-130	0			
Chloromethane	15220	170	570	20000	0	76.1	46-148	0			
cis-1,2-Dichloroethene	27070	250	850	20000	8990	90.4	75-134	0			
cis-1,3-Dichloropropene	18270	390	1,300	20000	0	91.4	70-130	0			
Dibromochloromethane	18360	380	1,200	20000	0	91.8	60-115	0			
Dibromomethane	18760	250	830	20000	0	93.8	85-125	0			
Dichlorodifluoromethane	18260	130	440	20000	0	91.3	20-120	0			
Ethylbenzene	23940	400	1,300	20000	4060	99.4	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	18590	240	800	20000	0	93	70-155	0
Isopropylbenzene	18870	310	1,000	20000	0	94.4	80-127	0
m,p-Xylene	51480	980	3,300	40000	11490	100	75-130	0
Methyl tert-butyl ether	21480	120	400	20000	0	107	80-130	0
Methylene chloride	20000	560	1,800	20000	2420	87.9	75-140	0
Naphthalene	18710	180	590	20000	0	93.6	55-160	0
n-Butylbenzene	18210	220	730	20000	0	91	75-145	0
n-Propylbenzene	19540	240	810	20000	0	97.7	83-135	0
o-Xylene	22760	350	1,200	20000	3570	96	80-125	0
p-Isopropyltoluene	18680	140	480	20000	0	93.4	61-164	0
sec-Butylbenzene	19550	290	980	20000	0	97.8	80-134	0
Styrene	20040	240	790	20000	0	100	83-137	0
tert-Butylbenzene	18420	340	1,200	20000	0	92.1	70-130	0
Tetrachloroethene	20420	270	910	20000	0	102	68-166	0
Toluene	83870	370	1,200	20000	62120	109	76-125	0
trans-1,2-Dichloroethene	19230	280	930	20000	0	96.2	80-140	0
trans-1,3-Dichloropropene	17340	820	2,700	20000	0	86.7	56-132	0
Trichloroethene	19110	300	990	20000	0	95.6	84-130	0
Trichlorofluoromethane	21080	200	660	20000	0	105	60-140	0
Vinyl chloride	18420	200	680	20000	850	87.8	50-136	0
Xylenes, Total	74240	1300	4,400	60000	15060	98.6	80-126	0
Surr: 1,2-Dichloroethane-d4	*20570*	0	0	*20000*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20110*	0	0	*20000*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20860*	0	0	*20000*	0	*104*	*85-115*	0
Surr: Toluene-d8	*19890*	0	0	*20000*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/18/18 08:30 AM**

Client ID: Run ID: **VMS8_180517C** SeqNo: **5093013** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19730	220	740	20000	0	98.6	73-114	19220	2.62	30	
1,1,1-Trichloroethane	23880	360	1,200	20000	2650	106	75-130	22710	5.02	30	
1,1,2,2-Tetrachloroethane	21790	190	620	20000	0	109	75-130	21410	1.76	30	
1,1,2-Trichloroethane	18530	400	1,300	20000	0	92.6	75-125	18260	1.47	30	
1,1-Dichloroethane	20630	310	1,000	20000	1640	95	75-133	20160	2.3	30	
1,1-Dichloroethene	23210	280	920	20000	0	116	70-145	21570	7.32	30	
1,1-Dichloropropene	18960	350	1,200	20000	0	94.8	75-135	18050	4.92	30	
1,2,3-Trichlorobenzene	20000	170	550	20000	0	100	70-140	18890	5.71	30	
1,2,3-Trichloropropane	18830	110	400	20000	0	94.2	75-125	18160	3.62	30	
1,2,4-Trichlorobenzene	19690	210	710	20000	0	98.4	70-135	18110	8.36	30	
1,2,4-Trimethylbenzene	19240	370	1,200	20000	0	96.2	75-130	19000	1.26	30	
1,2-Dibromo-3-chloropropane	19910	970	3,200	20000	0	99.6	60-130	18720	6.16	30	
1,2-Dibromoethane	20490	980	3,300	20000	0	102	90-195	20450	0.195	30	
1,2-Dichlorobenzene	20940	220	730	20000	0	105	70-130	19190	8.72	30	
1,2-Dichloroethane	18980	170	550	20000	0	94.9	78-125	18320	3.54	30	
1,2-Dichloropropane	19500	250	830	20000	0	97.5	75-125	18300	6.35	30	
1,3,5-Trimethylbenzene	20020	290	950	20000	0	100	75-130	19770	1.26	30	
1,3-Dichlorobenzene	20800	290	960	20000	0	104	75-130	19470	6.61	30	
1,3-Dichloropropane	19550	180	610	20000	0	97.8	75-125	18260	6.82	30	
1,4-Dichlorobenzene	21020	210	710	20000	0	105	75-130	19260	8.74	30	
2,2-Dichloropropane	13560	440	1,500	20000	0	67.8	43-150	13150	3.07	30	
2-Butanone	32800	580	2,000	20000	15800	85	55-150	32280	1.6	30	
2-Chlorotoluene	20810	320	1,100	20000	0	104	84-133	19790	5.02	30	
4-Chlorotoluene	20090	280	950	20000	0	100	80-125	19110	5	30	
4-Methyl-2-pentanone	36290	110	400	20000	6900	147	77-178	37620	3.6	30	
Acetone	96360	920	3,100	20000	80430	79.6	60-160	98320	2.01	30	O
Benzene	20200	300	1,000	20000	0	101	85-125	19370	4.2	30	
Bromobenzene	19450	240	800	20000	0	97.2	80-125	19040	2.13	30	
Bromochloromethane	19850	200	660	20000	0	99.2	72-141	19360	2.5	30	
Bromodichloromethane	19650	230	780	20000	0	98.2	75-125	18790	4.47	30	
Bromoform	20110	770	2,600	20000	0	101	60-125	19780	1.65	30	
Bromomethane	49680	380	1,300	20000	0	248	30-185	49490	0.383	30	S
Carbon tetrachloride	21300	310	1,000	20000	0	106	65-140	19600	8.31	30	
Chlorobenzene	20230	270	900	20000	0	101	80-120	19010	6.22	30	
Chloroethane	20620	290	970	20000	0	103	50-140	21100	2.3	30	
Chloroform	18960	260	860	20000	0	94.8	80-130	18300	3.54	30	
Chloromethane	15530	170	570	20000	0	77.6	46-148	15220	2.02	30	
cis-1,2-Dichloroethene	28550	250	850	20000	8990	97.8	75-134	27070	5.32	30	
cis-1,3-Dichloropropene	18280	390	1,300	20000	0	91.4	70-130	18270	0.0547	30	
Dibromochloromethane	19320	380	1,200	20000	0	96.6	60-115	18360	5.1	30	
Dibromomethane	19380	250	830	20000	0	96.9	85-125	18760	3.25	30	
Dichlorodifluoromethane	19500	130	440	20000	0	97.5	20-120	18260	6.57	30	
Ethylbenzene	24940	400	1,300	20000	4060	104	76-123	23940	4.09	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	21180	240	800	20000	0	106	70-155	18590	13	30
Isopropylbenzene	20160	310	1,000	20000	0	101	80-127	18870	6.61	30
m,p-Xylene	54310	980	3,300	40000	11490	107	75-130	51480	5.35	30
Methyl tert-butyl ether	21050	120	400	20000	0	105	80-130	21480	2.02	30
Methylene chloride	20080	560	1,800	20000	2420	88.3	75-140	20000	0.399	30
Naphthalene	19530	180	590	20000	0	97.6	55-160	18710	4.29	30
n-Butylbenzene	19960	220	730	20000	0	99.8	75-145	18210	9.17	30
n-Propylbenzene	20710	240	810	20000	0	104	83-135	19540	5.81	30
o-Xylene	23880	350	1,200	20000	3570	102	80-125	22760	4.8	30
p-Isopropyltoluene	20350	140	480	20000	0	102	61-164	18680	8.56	30
sec-Butylbenzene	20320	290	980	20000	0	102	80-134	19550	3.86	30
Styrene	20650	240	790	20000	0	103	83-137	20040	3	30
tert-Butylbenzene	19520	340	1,200	20000	0	97.6	70-130	18420	5.8	30
Tetrachloroethene	21760	270	910	20000	0	109	68-166	20420	6.35	30
Toluene	85970	370	1,200	20000	62120	119	76-125	83870	2.47	30
trans-1,2-Dichloroethene	19880	280	930	20000	0	99.4	80-140	19230	3.32	30
trans-1,3-Dichloropropene	17480	820	2,700	20000	0	87.4	56-132	17340	0.804	30
Trichloroethene	20370	300	990	20000	0	102	84-130	19110	6.38	30
Trichlorofluoromethane	22620	200	660	20000	0	113	60-140	21080	7.05	30
Vinyl chloride	19260	200	680	20000	850	92	50-136	18420	4.46	30
Xylenes, Total	78190	1300	4,400	60000	15060	105	80-126	74240	5.18	30
Surr: 1,2-Dichloroethane-d4	*19920*	0	0	*20000*	0	*99.6*	*75-120*	20570	*3.21*	*30*
Surr: 4-Bromofluorobenzene	*19790*	0	0	*20000*	0	*99*	*80-110*	20110	*1.6*	*30*
Surr: Dibromofluoromethane	*20020*	0	0	*20000*	0	*100*	*85-115*	20860	*4.11*	*30*
Surr: Toluene-d8	*19840*	0	0	*20000*	0	*99.2*	*85-110*	19890	*0.252*	*30*

The following samples were analyzed in this batch:

1805786-01A	1805786-02A	1805786-11A
1805786-12A	1805786-19A	1805786-20A
1805786-21A	1805786-22A	1805786-23A
1805786-24A	1805786-25A	1805786-26A
1805786-27A	1805786-28A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-180417-R236164a** Units: **µg/L** Analysis Date: **05/18/18 02:22 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5040669** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164a**	Instrument ID **VMS8**			Method: **SW8260C**				
Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*18.78*	0	0	*20*	0	*93.9*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.16*	0	0	*20*	0	*95.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.05*	0	0	*20*	0	*100*	*85-115*	0
Surr: Toluene-d8	*19.74*	0	0	*20*	0	*98.7*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW2-180517-R236164a** Units: **µg/L** Analysis Date: **05/18/18 01:34 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5040668** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.99	0.33	1.0	20	0	100	75-130	0			
1,1,2,2-Tetrachloroethane	21.61	0.17	1.0	20	0	108	75-130	0			
1,1,2-Trichloroethane	18.31	0.22	1.0	20	0	91.6	75-125	0			
1,1-Dichloroethane	18.39	0.48	1.0	20	0	92	68-142	0			
1,1-Dichloroethene	18.85	0.36	1.0	20	0	94.2	70-145	0			
1,2,3-Trichlorobenzene	22.22	0.29	1.0	20	0	111	70-140	0			
1,2,4-Trichlorobenzene	21.9	0.25	1.0	20	0	110	70-135	0			
1,2-Dibromo-3-chloropropane	19.82	0.43	1.0	20	0	99.1	60-130	0			
1,2-Dibromoethane	20.34	0.17	1.0	20	0	102	67-155	0			
1,2-Dichlorobenzene	21.66	0.12	1.0	20	0	108	70-130	0			
1,2-Dichloroethane	18.34	0.11	1.0	20	0	91.7	78-125	0			
1,2-Dichloropropane	18.92	0.34	1.0	20	0	94.6	75-125	0			
1,3-Dichlorobenzene	21.36	0.13	1.0	20	0	107	75-130	0			
1,4-Dichlorobenzene	21.81	0.13	1.0	20	0	109	75-130	0			
2-Butanone	17.36	0.47	5.0	20	0	86.8	55-150	0			
2-Hexanone	18.49	0.5	5.0	20	0	92.4	60-135	0			
4-Methyl-2-pentanone	28.71	0.52	1.0	20	0	144	77-178	0			
Acetone	16.84	0.47	10	20	0	84.2	60-160	0			
Benzene	19.61	0.42	1.0	20	0	98	85-125	0			
Bromochloromethane	17.58	0.15	1.0	20	0	87.9	72-141	0			
Bromodichloromethane	19.27	0.22	1.0	20	0	96.4	75-125	0			
Bromoform	20.37	0.56	1.0	20	0	102	60-125	0			
Bromomethane	22.31	0.29	1.0	20	0	112	30-185	0			
Carbon disulfide	19.42	0.39	1.0	20	0	97.1	60-165	0			
Carbon tetrachloride	19.17	0.32	1.0	20	0	95.8	65-140	0			
Chlorobenzene	19.79	0.21	1.0	20	0	99	80-120	0			
Chloroethane	17.93	0.68	1.0	20	0	89.6	50-140	0			
Chloroform	18.14	0.46	1.0	20	0	90.7	80-130	0			
Chloromethane	15.6	0.68	1.0	20	0	78	46-148	0			
cis-1,2-Dichloroethene	19.31	0.38	1.0	20	0	96.6	75-134	0			
cis-1,3-Dichloropropene	19.29	0.13	1.0	20	0	96.4	70-130	0			
Dibromochloromethane	19.21	0.2	1.0	20	0	96	60-115	0			
Dichlorodifluoromethane	13.68	0.3	1.0	20	0	68.4	20-120	0			
Ethylbenzene	20.47	0.29	1.0	20	0	102	76-123	0			
Isopropylbenzene	19.75	0.17	1.0	20	0	98.8	80-127	0			
m,p-Xylene	40.66	0.53	2.0	40	0	102	75-130	0			
Methyl tert-butyl ether	21.06	0.21	1.0	20	0	105	68-129	0			
Methylene chloride	17.27	0.16	5.0	20	0	86.4	75-140	0			
o-Xylene	19.63	0.19	1.0	20	0	98.2	76-127	0			
Styrene	20.45	0.19	1.0	20	0	102	83-137	0			
Tetrachloroethene	22.05	0.28	1.0	20	0	110	68-166	0			
Toluene	20.42	0.32	1.0	20	0	102	76-125	0			
trans-1,2-Dichloroethene	19.05	0.48	1.0	20	0	95.2	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	18	0.15	1.0	20	0	90	56-132	0
Trichloroethene	19.75	0.33	1.0	20	0	98.8	84-130	0
Trichlorofluoromethane	17.47	0.24	1.0	20	0	87.4	60-140	0
Vinyl chloride	16.52	0.53	1.0	20	0	82.6	50-136	0
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.92*	0	0	*20*	0	*99.6*	*80-110*	0
Surr: Dibromofluoromethane	*20.3*	0	0	*20*	0	*102*	*85-115*	0
Surr: Toluene-d8	*19.85*	0	0	*20*	0	*99.2*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805785-15A MS** Units: **µg/L** Analysis Date: **05/18/18 08:14 AM**
Client ID: Run ID: **VMS8_180517C** SeqNo: **5040690** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22710	330	1,000	20000	2650	100	75-130	0			
1,1,2,2-Tetrachloroethane	21410	170	1,000	20000	0	107	75-130	0			
1,1,2-Trichloroethane	18260	220	1,000	20000	0	91.3	75-125	0			
1,1-Dichloroethane	20160	480	1,000	20000	1640	92.6	68-142	0			
1,1-Dichloroethene	21570	360	1,000	20000	0	108	70-145	0			
1,2,3-Trichlorobenzene	18890	290	1,000	20000	0	94.4	70-140	0			
1,2,4-Trichlorobenzene	18110	250	1,000	20000	0	90.6	70-135	0			
1,2-Dibromo-3-chloropropane	18720	430	1,000	20000	0	93.6	60-130	0			
1,2-Dibromoethane	20450	170	1,000	20000	0	102	67-155	0			
1,2-Dichlorobenzene	19190	120	1,000	20000	0	96	70-130	0			
1,2-Dichloroethane	18320	110	1,000	20000	0	91.6	78-125	0			
1,2-Dichloropropane	18300	340	1,000	20000	0	91.5	75-125	0			
1,3-Dichlorobenzene	19470	130	1,000	20000	0	97.4	75-130	0			
1,4-Dichlorobenzene	19260	130	1,000	20000	0	96.3	75-130	0			
2-Butanone	32280	470	5,000	20000	15800	82.4	55-150	0			
2-Hexanone	19850	500	5,000	20000	0	99.2	60-135	0			
4-Methyl-2-pentanone	37620	520	1,000	20000	6900	154	77-178	0			
Acetone	98320	470	10,000	20000	80430	89.4	60-160	0			O
Benzene	19370	420	1,000	20000	0	96.8	85-125	0			
Bromochloromethane	19360	150	1,000	20000	0	96.8	72-141	0			
Bromodichloromethane	18790	220	1,000	20000	0	94	75-125	0			
Bromoform	19780	560	1,000	20000	0	98.9	60-125	0			
Bromomethane	49490	290	1,000	20000	0	247	30-185	0			S
Carbon disulfide	19570	390	1,000	20000	0	97.8	60-165	0			
Carbon tetrachloride	19600	320	1,000	20000	0	98	65-140	0			
Chlorobenzene	19010	210	1,000	20000	0	95	80-120	0			
Chloroethane	21100	680	1,000	20000	0	106	50-140	0			
Chloroform	18300	460	1,000	20000	0	91.5	80-130	0			
Chloromethane	15220	680	1,000	20000	0	76.1	46-148	0			
cis-1,2-Dichloroethene	27070	380	1,000	20000	8990	90.4	75-134	0			
cis-1,3-Dichloropropene	18270	130	1,000	20000	0	91.4	70-130	0			
Dibromochloromethane	18360	200	1,000	20000	0	91.8	60-115	0			
Dichlorodifluoromethane	18260	300	1,000	20000	0	91.3	20-120	0			
Ethylbenzene	23940	290	1,000	20000	4060	99.4	76-123	0			
Isopropylbenzene	18870	170	1,000	20000	0	94.4	80-127	0			
m,p-Xylene	51480	530	2,000	40000	11490	100	75-130	0			
Methyl tert-butyl ether	21480	210	1,000	20000	0	107	68-129	0			
Methylene chloride	20000	160	5,000	20000	2420	87.9	75-140	0			
o-Xylene	22760	190	1,000	20000	3570	96	76-127	0			
Styrene	20040	190	1,000	20000	0	100	83-137	0			
Tetrachloroethene	20420	280	1,000	20000	0	102	68-166	0			
Toluene	83870	320	1,000	20000	62120	109	76-125	0			
trans-1,2-Dichloroethene	19230	480	1,000	20000	0	96.2	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	17340	150	1,000	20000	0	86.7	56-132	0
Trichloroethene	19110	330	1,000	20000	0	95.6	84-130	0
Trichlorofluoromethane	21080	240	1,000	20000	0	105	60-140	0
Vinyl chloride	18420	530	1,000	20000	850	87.8	50-136	0
Surr: 1,2-Dichloroethane-d4	*20570*	0	0	*20000*	0	*103*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20110*	0	0	*20000*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*20860*	0	0	*20000*	0	*104*	*85-115*	0
Surr: Toluene-d8	*19890*	0	0	*20000*	0	*99.4*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805785-15A MSD** Units: **µg/L** Analysis Date: **05/18/18 08:30 AM**

Client ID: Run ID: **VMS8_180517C** SeqNo: **5040691** Prep Date: DF: **1000**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23880	330	1,000	20000	2650	106	75-130	22710	5.02	30	
1,1,2,2-Tetrachloroethane	21790	170	1,000	20000	0	109	75-130	21410	1.76	30	
1,1,2-Trichloroethane	18530	220	1,000	20000	0	92.6	75-125	18260	1.47	30	
1,1-Dichloroethane	20630	480	1,000	20000	1640	95	68-142	20160	2.3	30	
1,1-Dichloroethene	23210	360	1,000	20000	0	116	70-145	21570	7.32	30	
1,2,3-Trichlorobenzene	20000	290	1,000	20000	0	100	70-140	18890	5.71	30	
1,2,4-Trichlorobenzene	19690	250	1,000	20000	0	98.4	70-135	18110	8.36	30	
1,2-Dibromo-3-chloropropane	19910	430	1,000	20000	0	99.6	60-130	18720	6.16	30	
1,2-Dibromoethane	20490	170	1,000	20000	0	102	67-155	20450	0.195	30	
1,2-Dichlorobenzene	20940	120	1,000	20000	0	105	70-130	19190	8.72	30	
1,2-Dichloroethane	18980	110	1,000	20000	0	94.9	78-125	18320	3.54	30	
1,2-Dichloropropane	19500	340	1,000	20000	0	97.5	75-125	18300	6.35	30	
1,3-Dichlorobenzene	20800	130	1,000	20000	0	104	75-130	19470	6.61	30	
1,4-Dichlorobenzene	21020	130	1,000	20000	0	105	75-130	19260	8.74	30	
2-Butanone	32800	470	5,000	20000	15800	85	55-150	32280	1.6	30	
2-Hexanone	19100	500	5,000	20000	0	95.5	60-135	19850	3.85	30	
4-Methyl-2-pentanone	36290	520	1,000	20000	6900	147	77-178	37620	3.6	30	
Acetone	96360	470	10,000	20000	80430	79.6	60-160	98320	2.01	30	O
Benzene	20200	420	1,000	20000	0	101	85-125	19370	4.2	30	
Bromochloromethane	19850	150	1,000	20000	0	99.2	72-141	19360	2.5	30	
Bromodichloromethane	19650	220	1,000	20000	0	98.2	75-125	18790	4.47	30	
Bromoform	20110	560	1,000	20000	0	101	60-125	19780	1.65	30	
Bromomethane	49680	290	1,000	20000	0	248	30-185	49490	0.383	30	S
Carbon disulfide	21570	390	1,000	20000	0	108	60-165	19570	9.72	30	
Carbon tetrachloride	21300	320	1,000	20000	0	106	65-140	19600	8.31	30	
Chlorobenzene	20230	210	1,000	20000	0	101	80-120	19010	6.22	30	
Chloroethane	20620	680	1,000	20000	0	103	50-140	21100	2.3	30	
Chloroform	18960	460	1,000	20000	0	94.8	80-130	18300	3.54	30	
Chloromethane	15530	680	1,000	20000	0	77.6	46-148	15220	2.02	30	
cis-1,2-Dichloroethene	28550	380	1,000	20000	8990	97.8	75-134	27070	5.32	30	
cis-1,3-Dichloropropene	18280	130	1,000	20000	0	91.4	70-130	18270	0.0547	30	
Dibromochloromethane	19320	200	1,000	20000	0	96.6	60-115	18360	5.1	30	
Dichlorodifluoromethane	19500	300	1,000	20000	0	97.5	20-120	18260	6.57	30	
Ethylbenzene	24940	290	1,000	20000	4060	104	76-123	23940	4.09	30	
Isopropylbenzene	20160	170	1,000	20000	0	101	80-127	18870	6.61	30	
m,p-Xylene	54310	530	2,000	40000	11490	107	75-130	51480	5.35	30	
Methyl tert-butyl ether	21050	210	1,000	20000	0	105	68-129	21480	2.02	30	
Methylene chloride	20080	160	5,000	20000	2420	88.3	75-140	20000	0.399	30	
o-Xylene	23880	190	1,000	20000	3570	102	76-127	22760	4.8	30	
Styrene	20650	190	1,000	20000	0	103	83-137	20040	3	30	
Tetrachloroethene	21760	280	1,000	20000	0	109	68-166	20420	6.35	30	
Toluene	85970	320	1,000	20000	62120	119	76-125	83870	2.47	30	
trans-1,2-Dichloroethene	19880	480	1,000	20000	0	99.4	80-140	19230	3.32	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

QC BATCH REPORT

Batch ID: **R236164a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	17480	150	1,000	20000	0	87.4	56-132	17340	0.804	30
Trichloroethene	20370	330	1,000	20000	0	102	84-130	19110	6.38	30
Trichlorofluoromethane	22620	240	1,000	20000	0	113	60-140	21080	7.05	30
Vinyl chloride	19260	530	1,000	20000	850	92	50-136	18420	4.46	30
Surr: 1,2-Dichloroethane-d4	*19920*	0	0	*20000*	0	*99.6*	*75-120*	20570	*3.21*	*30*
Surr: 4-Bromofluorobenzene	*19790*	0	0	*20000*	0	*99*	*80-110*	20110	*1.6*	*30*
Surr: Dibromofluoromethane	*20020*	0	0	*20000*	0	*100*	*85-115*	20860	*4.11*	*30*
Surr: Toluene-d8	*19840*	0	0	*20000*	0	*99.2*	*85-110*	19890	*0.252*	*30*

The following samples were analyzed in this batch:

1805786-01A	1805786-02A	1805786-11A
1805786-12A	1805786-19A	1805786-20A
1805786-21A	1805786-22A	1805786-23A
1805786-24A	1805786-25A	1805786-26A
1805786-27A	1805786-28A	

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180418-R236211** Units: **µg/L** Analysis Date: **05/18/18 08:03 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5093117** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.22	0.74								
1,1,1-Trichloroethane	U	0.36	1.2								
1,1,2,2-Tetrachloroethane	U	0.19	0.62								
1,1,2-Trichloroethane	U	0.4	1.3								
1,1-Dichloroethane	U	0.31	1.0								
1,1-Dichloroethene	U	0.28	0.92								
1,1-Dichloropropene	U	0.35	1.2								
1,2,3-Trichlorobenzene	U	0.17	0.55								
1,2,3-Trichloropropane	U	0.11	0.40								
1,2,4-Trichlorobenzene	U	0.21	0.71								
1,2,4-Trimethylbenzene	U	0.37	1.2								
1,2-Dibromo-3-chloropropane	U	0.97	3.2								
1,2-Dibromoethane	U	0.98	3.3								
1,2-Dichlorobenzene	U	0.22	0.73								
1,2-Dichloroethane	U	0.17	0.55								
1,2-Dichloropropane	U	0.25	0.83								
1,3,5-Trimethylbenzene	U	0.29	0.95								
1,3-Dichlorobenzene	U	0.29	0.96								
1,3-Dichloropropane	U	0.18	0.61								
1,4-Dichlorobenzene	U	0.21	0.71								
2,2-Dichloropropane	U	0.44	1.5								
2-Butanone	U	0.58	2.0								
2-Chlorotoluene	U	0.32	1.1								
2-Propanol	U	0	0								
4-Chlorotoluene	U	0.28	0.95								
4-Methyl-2-pentanone	U	0.11	0.40								
Acetone	U	0.92	3.1								
Benzene	U	0.3	1.0								
Bromobenzene	U	0.24	0.80								
Bromochloromethane	U	0.2	0.66								
Bromodichloromethane	U	0.23	0.78								
Bromoform	U	0.77	2.6								
Bromomethane	U	0.38	1.3								
Carbon tetrachloride	U	0.31	1.0								
Chlorobenzene	U	0.27	0.90								
Chloroethane	U	0.29	0.97								
Chloroform	U	0.26	0.86								
Chloromethane	U	0.17	0.57								
cis-1,2-Dichloroethene	U	0.25	0.85								
cis-1,3-Dichloropropene	U	0.39	1.3								
Dibromochloromethane	U	0.38	1.2								
Dibromomethane	U	0.25	0.83								
Dichlorodifluoromethane	U	0.13	0.44								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43					
Ethylbenzene	U	0.4	1.3					
Hexachlorobutadiene	U	0.24	0.80					
Isopropylbenzene	U	0.31	1.0					
m,p-Xylene	U	0.98	3.3					
Methyl tert-butyl ether	U	0.12	0.40					
Methylene chloride	U	0.56	1.8					
Naphthalene	U	0.18	0.59					
n-Butylbenzene	U	0.22	0.73					
n-Propylbenzene	U	0.24	0.81					
o-Xylene	U	0.35	1.2					
p-Isopropyltoluene	U	0.14	0.48					
sec-Butylbenzene	U	0.29	0.98					
Styrene	U	0.24	0.79					
tert-Butylbenzene	U	0.34	1.2					
Tetrachloroethene	U	0.27	0.91					
Toluene	U	0.37	1.2					
trans-1,2-Dichloroethene	U	0.28	0.93					
trans-1,3-Dichloropropene	U	0.82	2.7					
Trichloroethene	U	0.3	0.99					
Trichlorofluoromethane	U	0.2	0.66					
Vinyl chloride	U	0.2	0.68					
Xylenes, Total	U	1.3	4.4					
Surr: 1,2-Dichloroethane-d4	*19.08*	0	0	*20*	0	*95.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.95*	0	0	*20*	0	*94.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.95*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*19.58*	0	0	*20*	0	*97.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180518-R236211** Units: **µg/L** Analysis Date: **05/18/18 07:15 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5093116** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.68	0.22	0.74	20	0	108	73-114	0			
1,1,1-Trichloroethane	21.23	0.36	1.2	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	23.35	0.19	0.62	20	0	117	75-130	0			
1,1,2-Trichloroethane	20.12	0.4	1.3	20	0	101	75-125	0			
1,1-Dichloroethane	18.99	0.31	1.0	20	0	95	75-133	0			
1,1-Dichloroethene	20.33	0.28	0.92	20	0	102	70-145	0			
1,1-Dichloropropene	19.67	0.35	1.2	20	0	98.4	75-135	0			
1,2,3-Trichlorobenzene	22.08	0.17	0.55	20	0	110	70-140	0			
1,2,3-Trichloropropane	20.66	0.11	0.40	20	0	103	75-125	0			
1,2,4-Trichlorobenzene	22.8	0.21	0.71	20	0	114	70-135	0			
1,2,4-Trimethylbenzene	21.09	0.37	1.2	20	0	105	75-130	0			
1,2-Dibromo-3-chloropropane	20.19	0.97	3.2	20	0	101	60-130	0			
1,2-Dibromoethane	21.51	0.98	3.3	20	0	108	90-195	0			
1,2-Dichlorobenzene	22.41	0.22	0.73	20	0	112	70-130	0			
1,2-Dichloroethane	19.1	0.17	0.55	20	0	95.5	78-125	0			
1,2-Dichloropropane	20.25	0.25	0.83	20	0	101	75-125	0			
1,3,5-Trimethylbenzene	21.71	0.29	0.95	20	0	109	75-130	0			
1,3-Dichlorobenzene	22.65	0.29	0.96	20	0	113	75-130	0			
1,3-Dichloropropane	20.37	0.18	0.61	20	0	102	75-125	0			
1,4-Dichlorobenzene	22.49	0.21	0.71	20	0	112	75-130	0			
2,2-Dichloropropane	20.09	0.44	1.5	20	0	100	43-150	0			
2-Butanone	12.92	0.58	2.0	20	0	64.6	55-150	0			
2-Chlorotoluene	21.6	0.32	1.1	20	0	108	84-133	0			
4-Chlorotoluene	21.5	0.28	0.95	20	0	108	80-125	0			
4-Methyl-2-pentanone	29.04	0.11	0.40	20	0	145	77-178	0			
Acetone	16.39	0.92	3.1	20	0	82	60-160	0			
Benzene	21.08	0.3	1.0	20	0	105	85-125	0			
Bromobenzene	20.96	0.24	0.80	20	0	105	80-125	0			
Bromochloromethane	18.59	0.2	0.66	20	0	93	72-141	0			
Bromodichloromethane	20.78	0.23	0.78	20	0	104	75-125	0			
Bromoform	22.52	0.77	2.6	20	0	113	60-125	0			
Bromomethane	35.05	0.38	1.3	20	0	175	30-185	0			
Carbon tetrachloride	21.72	0.31	1.0	20	0	109	65-140	0			
Chlorobenzene	21.67	0.27	0.90	20	0	108	80-120	0			
Chloroethane	13.57	0.29	0.97	20	0	67.8	50-140	0			
Chloroform	19	0.26	0.86	20	0	95	80-130	0			
Chloromethane	14.88	0.17	0.57	20	0	74.4	46-148	0			
cis-1,2-Dichloroethene	20.3	0.25	0.85	20	0	102	75-134	0			
cis-1,3-Dichloropropene	20.65	0.39	1.3	20	0	103	70-130	0			
Dibromochloromethane	21	0.38	1.2	20	0	105	60-115	0			
Dibromomethane	20.49	0.25	0.83	20	0	102	85-125	0			
Dichlorodifluoromethane	16.63	0.13	0.44	20	0	83.2	20-120	0			
Ethylbenzene	21.45	0.4	1.3	20	0	107	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211**	Instrument ID **VMS8**			Method: **SW8260C**				
Hexachlorobutadiene	22.44	0.24	0.80	20	0	112	70-155	0
Isopropylbenzene	20.98	0.31	1.0	20	0	105	80-127	0
m,p-Xylene	42.25	0.98	3.3	40	0	106	75-130	0
Methyl tert-butyl ether	20.53	0.12	0.40	20	0	103	80-130	0
Methylene chloride	18.21	0.56	1.8	20	0	91	75-140	0
Naphthalene	20.5	0.18	0.59	20	0	102	55-160	0
n-Butylbenzene	20.96	0.22	0.73	20	0	105	75-145	0
n-Propylbenzene	21.36	0.24	0.81	20	0	107	83-135	0
o-Xylene	21.12	0.35	1.2	20	0	106	80-125	0
p-Isopropyltoluene	21.19	0.14	0.48	20	0	106	61-164	0
sec-Butylbenzene	21.38	0.29	0.98	20	0	107	80-134	0
Styrene	22.05	0.24	0.79	20	0	110	83-137	0
tert-Butylbenzene	22.82	0.34	1.2	20	0	114	70-130	0
Tetrachloroethene	23.9	0.27	0.91	20	0	120	68-166	0
Toluene	21.73	0.37	1.2	20	0	109	76-125	0
trans-1,2-Dichloroethene	19.77	0.28	0.93	20	0	98.8	80-140	0
trans-1,3-Dichloropropene	20.02	0.82	2.7	20	0	100	56-132	0
Trichloroethene	20.82	0.3	0.99	20	0	104	84-130	0
Trichlorofluoromethane	16.5	0.2	0.66	20	0	82.5	60-140	0
Vinyl chloride	16.63	0.2	0.68	20	0	83.2	50-136	0
Xylenes, Total	63.37	1.3	4.4	60	0	106	80-126	0
Surr: 1,2-Dichloroethane-d4	*18.83*	0	0	*20*	0	*94.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.95*	0	0	*20*	0	*99.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.2*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*20.2*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-19A MS** Units: **µg/L** Analysis Date: **05/19/18 01:55 AM**

Client ID: Run ID: **VMS8_180518B** SeqNo: **5093121** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	917	11	37	1000	0	91.7	73-114	0			
1,1,1-Trichloroethane	895	18	60	1000	0	89.5	75-130	0			
1,1,2,2-Tetrachloroethane	1058	9.3	31	1000	0	106	75-130	0			
1,1,2-Trichloroethane	889.5	20	66	1000	0	89	75-125	0			
1,1-Dichloroethane	931	15	52	1000	70	86.1	75-133	0			
1,1-Dichloroethene	922	14	46	1000	0	92.2	70-145	0			
1,1-Dichloropropene	797.5	18	59	1000	0	79.8	75-135	0			
1,2,3-Trichlorobenzene	918	8.3	28	1000	0	91.8	70-140	0			
1,2,3-Trichloropropane	938	5.5	20	1000	0	93.8	75-125	0			
1,2,4-Trichlorobenzene	845.5	11	36	1000	0	84.6	70-135	0			
1,2,4-Trimethylbenzene	817.5	19	62	1000	0	81.8	75-130	0			
1,2-Dibromo-3-chloropropane	926	49	160	1000	0	92.6	60-130	0			
1,2-Dibromoethane	1004	49	160	1000	0	100	90-195	0			
1,2-Dichlorobenzene	980.5	11	36	1000	0	98	70-130	0			
1,2-Dichloroethane	982.5	8.3	28	1000	62.5	92	78-125	0			
1,2-Dichloropropane	887.5	12	42	1000	0	88.8	75-125	0			
1,3,5-Trimethylbenzene	860	14	48	1000	0	86	75-130	0			
1,3-Dichlorobenzene	928	14	48	1000	0	92.8	75-130	0			
1,3-Dichloropropane	912.5	9.2	30	1000	0	91.2	75-125	0			
1,4-Dichlorobenzene	974.5	11	36	1000	0	97.4	75-130	0			
2,2-Dichloropropane	732.5	22	74	1000	0	73.2	43-150	0			
2-Butanone	897.5	29	98	1000	0	89.8	55-150	0			
2-Chlorotoluene	912	16	54	1000	0	91.2	84-133	0			
4-Chlorotoluene	882.5	14	48	1000	0	88.2	80-125	0			
4-Methyl-2-pentanone	1436	5.7	20	1000	0	144	77-178	0			
Acetone	921	46	150	1000	0	92.1	60-160	0			
Benzene	926	15	50	1000	0	92.6	85-125	0			
Bromobenzene	894.5	12	40	1000	0	89.4	80-125	0			
Bromochloromethane	972.5	9.8	33	1000	0	97.2	72-141	0			
Bromodichloromethane	938	12	39	1000	0	93.8	75-125	0			
Bromoform	983	38	130	1000	0	98.3	60-125	0			
Bromomethane	2250	19	63	1000	0	225	30-185	0			S
Carbon tetrachloride	857	16	52	1000	0	85.7	65-140	0			
Chlorobenzene	901	14	45	1000	0	90.1	80-120	0			
Chloroethane	1790	15	48	1000	1144	64.7	50-140	0			
Chloroform	863	13	43	1000	0	86.3	80-130	0			
Chloromethane	665	8.6	28	1000	0	66.5	46-148	0			
cis-1,2-Dichloroethene	911.5	13	42	1000	0	91.2	75-134	0			
cis-1,3-Dichloropropene	930.5	20	66	1000	0	93	70-130	0			
Dibromochloromethane	903	19	62	1000	0	90.3	60-115	0			
Dibromomethane	978	12	42	1000	0	97.8	85-125	0			
Dichlorodifluoromethane	794.5	6.6	22	1000	0	79.4	20-120	0			
Ethylbenzene	874.5	20	67	1000	0	87.4	76-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211**	Instrument ID **VMS8**			Method: **SW8260C**				
Hexachlorobutadiene	840.5	12	40	1000	0	84	70-155	0
Isopropylbenzene	835.5	16	52	1000	0	83.6	80-127	0
m,p-Xylene	1719	49	160	2000	0	86	75-130	0
Methyl tert-butyl ether	1024	5.8	20	1000	0	102	80-130	0
Methylene chloride	883	28	92	1000	0	88.3	75-140	0
Naphthalene	889.5	8.8	30	1000	0	89	55-160	0
n-Butylbenzene	821.5	11	36	1000	0	82.2	75-145	0
n-Propylbenzene	849.5	12	40	1000	0	85	83-135	0
o-Xylene	895.5	18	59	1000	0	89.6	80-125	0
p-Isopropyltoluene	849	7.2	24	1000	0	84.9	61-164	0
sec-Butylbenzene	846	15	49	1000	0	84.6	80-134	0
Styrene	934.5	12	40	1000	0	93.4	83-137	0
tert-Butylbenzene	908	17	58	1000	0	90.8	70-130	0
Tetrachloroethene	910	14	46	1000	0	91	68-166	0
Toluene	957.5	18	61	1000	77.5	88	76-125	0
trans-1,2-Dichloroethene	949.5	14	46	1000	95	85.4	80-140	0
trans-1,3-Dichloropropene	860.5	41	140	1000	0	86	56-132	0
Trichloroethene	891.5	15	50	1000	0	89.2	84-130	0
Trichlorofluoromethane	899.5	10	33	1000	0	90	60-140	0
Vinyl chloride	733.5	10	34	1000	0	73.4	50-136	0
Xylenes, Total	2614	66	220	3000	0	87.2	80-126	0
Surr: 1,2-Dichloroethane-d4	*1014*	0	0	*1000*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*945.5*	0	0	*1000*	0	*94.6*	*80-110*	0
Surr: Dibromofluoromethane	*1004*	0	0	*1000*	0	*100*	*85-115*	0
Surr: Toluene-d8	*969*	0	0	*1000*	0	*96.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-19A MSD** Units: **µg/L** Analysis Date: **05/19/18 02:11 AM**

Client ID: Run ID: **VMS8_180518B** SeqNo: **5093122** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1024	11	37	1000	0	102	73-114	917	11.1	30	
1,1,1-Trichloroethane	1084	18	60	1000	0	108	75-130	895	19.1	30	
1,1,2,2-Tetrachloroethane	1122	9.3	31	1000	0	112	75-130	1058	5.92	30	
1,1,2-Trichloroethane	954.5	20	66	1000	0	95.4	75-125	889.5	7.05	30	
1,1-Dichloroethane	1044	15	52	1000	70	97.4	75-133	931	11.4	30	
1,1-Dichloroethene	1118	14	46	1000	0	112	70-145	922	19.2	30	
1,1-Dichloropropene	966.5	18	59	1000	0	96.6	75-135	797.5	19.2	30	
1,2,3-Trichlorobenzene	993.5	8.3	28	1000	0	99.4	70-140	918	7.9	30	
1,2,3-Trichloropropane	973.5	5.5	20	1000	0	97.4	75-125	938	3.71	30	
1,2,4-Trichlorobenzene	965	11	36	1000	0	96.5	70-135	845.5	13.2	30	
1,2,4-Trimethylbenzene	988.5	19	62	1000	0	98.8	75-130	817.5	18.9	30	
1,2-Dibromo-3-chloropropane	924.5	49	160	1000	0	92.4	60-130	926	0.162	30	
1,2-Dibromoethane	1040	49	160	1000	0	104	90-195	1004	3.57	30	
1,2-Dichlorobenzene	1066	11	36	1000	0	107	70-130	980.5	8.4	30	
1,2-Dichloroethane	1016	8.3	28	1000	62.5	95.4	78-125	982.5	3.35	30	
1,2-Dichloropropane	952.5	12	42	1000	0	95.2	75-125	887.5	7.07	30	
1,3,5-Trimethylbenzene	1058	14	48	1000	0	106	75-130	860	20.6	30	
1,3-Dichlorobenzene	1057	14	48	1000	0	106	75-130	928	13	30	
1,3-Dichloropropane	1000	9.2	30	1000	0	100	75-125	912.5	9.2	30	
1,4-Dichlorobenzene	1075	11	36	1000	0	108	75-130	974.5	9.81	30	
2,2-Dichloropropane	866.5	22	74	1000	0	86.6	43-150	732.5	16.8	30	
2-Butanone	858.5	29	98	1000	0	85.8	55-150	897.5	4.44	30	
2-Chlorotoluene	1056	16	54	1000	0	106	84-133	912	14.6	30	
4-Chlorotoluene	1031	14	48	1000	0	103	80-125	882.5	15.5	30	
4-Methyl-2-pentanone	1452	5.7	20	1000	0	145	77-178	1436	1.18	30	
Acetone	935.5	46	150	1000	0	93.6	60-160	921	1.56	30	
Benzene	1044	15	50	1000	0	104	85-125	926	12	30	
Bromobenzene	979.5	12	40	1000	0	98	80-125	894.5	9.07	30	
Bromochloromethane	1016	9.8	33	1000	0	102	72-141	972.5	4.33	30	
Bromodichloromethane	977.5	12	39	1000	0	97.8	75-125	938	4.12	30	
Bromoform	1039	38	130	1000	0	104	60-125	983	5.54	30	
Bromomethane	2541	19	63	1000	0	254	30-185	2250	12.1	30	S
Carbon tetrachloride	1066	16	52	1000	0	107	65-140	857	21.8	30	
Chlorobenzene	1034	14	45	1000	0	103	80-120	901	13.7	30	
Chloroethane	1972	15	48	1000	1144	82.8	50-140	1790	9.62	30	
Chloroform	969.5	13	43	1000	0	97	80-130	863	11.6	30	
Chloromethane	775.5	8.6	28	1000	0	77.6	46-148	665	15.3	30	
cis-1,2-Dichloroethene	1006	13	42	1000	0	101	75-134	911.5	9.86	30	
cis-1,3-Dichloropropene	957.5	20	66	1000	0	95.8	70-130	930.5	2.86	30	
Dibromochloromethane	962	19	62	1000	0	96.2	60-115	903	6.33	30	
Dibromomethane	986	12	42	1000	0	98.6	85-125	978	0.815	30	
Dichlorodifluoromethane	968.5	6.6	22	1000	0	96.8	20-120	794.5	19.7	30	
Ethylbenzene	1058	20	67	1000	0	106	76-123	874.5	19	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211** Instrument ID **VMS8** Method: **SW8260C**

Hexachlorobutadiene	1034	12	40	1000	0	103	70-155	840.5	20.6	30
Isopropylbenzene	1044	16	52	1000	0	104	80-127	835.5	22.2	30
m,p-Xylene	2103	49	160	2000	0	105	75-130	1719	20.1	30
Methyl tert-butyl ether	1050	5.8	20	1000	0	105	80-130	1024	2.6	30
Methylene chloride	945	28	92	1000	0	94.5	75-140	883	6.78	30
Naphthalene	908.5	8.8	30	1000	0	90.8	55-160	889.5	2.11	30
n-Butylbenzene	978.5	11	36	1000	0	97.8	75-145	821.5	17.4	30
n-Propylbenzene	1037	12	40	1000	0	104	83-135	849.5	19.9	30
o-Xylene	1050	18	59	1000	0	105	80-125	895.5	15.9	30
p-Isopropyltoluene	971	7.2	24	1000	0	97.1	61-164	849	13.4	30
sec-Butylbenzene	1047	15	49	1000	0	105	80-134	846	21.2	30
Styrene	1076	12	40	1000	0	108	83-137	934.5	14.1	30
tert-Butylbenzene	1098	17	58	1000	0	110	70-130	908	19	30
Tetrachloroethene	1128	14	46	1000	0	113	68-166	910	21.4	30
Toluene	1124	18	61	1000	77.5	105	76-125	957.5	16	30
trans-1,2-Dichloroethene	1125	14	46	1000	95	103	80-140	949.5	16.9	30
trans-1,3-Dichloropropene	959	41	140	1000	0	95.9	56-132	860.5	10.8	30
Trichloroethene	1009	15	50	1000	0	101	84-130	891.5	12.4	30
Trichlorofluoromethane	1100	10	33	1000	0	110	60-140	899.5	20.1	30
Vinyl chloride	937.5	10	34	1000	0	93.8	50-136	733.5	24.4	30
Xylenes, Total	3153	66	220	3000	0	105	80-126	2614	18.7	30
Surr: 1,2-Dichloroethane-d4	*930*	0	0	*1000*	0	*93*	*75-120*	1014	*8.59*	*30*
Surr: 4-Bromofluorobenzene	*959*	0	0	*1000*	0	*95.9*	*80-110*	945.5	*1.42*	*30*
Surr: Dibromofluoromethane	*1017*	0	0	*1000*	0	*102*	*85-115*	1004	*1.29*	*30*
Surr: Toluene-d8	*992*	0	0	*1000*	0	*99.2*	*85-110*	969	*2.35*	*30*

The following samples were analyzed in this batch: 1805786-03A 1805786-16A 1805786-17A 1805786-18A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-180418-R236211a** Units: **µg/L** Analysis Date: **05/18/18 08:03 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5041580** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.18	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichlorobenzene	U	0.29	1.0								
1,2,4-Trichlorobenzene	U	0.25	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichlorobenzene	U	0.12	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
1,3-Dichlorobenzene	U	0.13	1.0								
1,4-Dichlorobenzene	U	0.13	1.0								
2-Butanone	U	0.47	5.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Benzene	U	0.42	1.0								
Bromochloromethane	U	0.15	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,2-Dichloroethene	U	0.38	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Cyclohexane	U	0.18	1.0								
Dibromochloromethane	U	0.2	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethylbenzene	U	0.29	1.0								
Isopropylbenzene	U	0.17	1.0								
m,p-Xylene	U	0.53	2.0								
Methyl acetate	U	0.26	2.0								
Methyl tert-butyl ether	U	0.21	1.0								
Methylcyclohexane	U	0.09	1.0								
Methylene chloride	U	0.16	5.0								
o-Xylene	U	0.19	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

Styrene	U	0.19	1.0					
Tetrachloroethene	U	0.28	1.0					
Toluene	U	0.32	1.0					
trans-1,2-Dichloroethene	U	0.48	1.0					
trans-1,3-Dichloropropene	U	0.15	1.0					
Trichloroethene	U	0.33	1.0					
Trichlorofluoromethane	U	0.24	1.0					
Vinyl chloride	U	0.53	1.0					
Surr: 1,2-Dichloroethane-d4	*19.08*	0	0	*20*	0	*95.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*18.95*	0	0	*20*	0	*94.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.95*	0	0	*20*	0	*99.8*	*85-115*	0
Surr: Toluene-d8	*19.58*	0	0	*20*	0	*97.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

LCS Sample ID: **VLCSW1-180518-R236211a** Units: **µg/L** Analysis Date: **05/18/18 07:15 PM**
Client ID: Run ID: **VMS8_180518B** SeqNo: **5041579** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.23	0.33	1.0	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	23.35	0.17	1.0	20	0	117	75-130	0			
1,1,2-Trichloroethane	20.12	0.22	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	18.99	0.48	1.0	20	0	95	68-142	0			
1,1-Dichloroethene	20.33	0.36	1.0	20	0	102	70-145	0			
1,2,3-Trichlorobenzene	22.08	0.29	1.0	20	0	110	70-140	0			
1,2,4-Trichlorobenzene	22.8	0.25	1.0	20	0	114	70-135	0			
1,2-Dibromo-3-chloropropane	20.19	0.43	1.0	20	0	101	60-130	0			
1,2-Dibromoethane	21.51	0.17	1.0	20	0	108	67-155	0			
1,2-Dichlorobenzene	22.41	0.12	1.0	20	0	112	70-130	0			
1,2-Dichloroethane	19.1	0.11	1.0	20	0	95.5	78-125	0			
1,2-Dichloropropane	20.25	0.34	1.0	20	0	101	75-125	0			
1,3-Dichlorobenzene	22.65	0.13	1.0	20	0	113	75-130	0			
1,4-Dichlorobenzene	22.49	0.13	1.0	20	0	112	75-130	0			
2-Butanone	12.92	0.47	5.0	20	0	64.6	55-150	0			
2-Hexanone	19.09	0.5	5.0	20	0	95.4	60-135	0			
4-Methyl-2-pentanone	29.04	0.52	1.0	20	0	145	77-178	0			
Acetone	16.39	0.47	10	20	0	82	60-160	0			
Benzene	21.08	0.42	1.0	20	0	105	85-125	0			
Bromochloromethane	18.59	0.15	1.0	20	0	93	72-141	0			
Bromodichloromethane	20.78	0.22	1.0	20	0	104	75-125	0			
Bromoform	22.52	0.56	1.0	20	0	113	60-125	0			
Bromomethane	35.05	0.29	1.0	20	0	175	30-185	0			
Carbon disulfide	19.75	0.39	1.0	20	0	98.8	60-165	0			
Carbon tetrachloride	21.72	0.32	1.0	20	0	109	65-140	0			
Chlorobenzene	21.67	0.21	1.0	20	0	108	80-120	0			
Chloroethane	13.57	0.68	1.0	20	0	67.8	50-140	0			
Chloroform	19	0.46	1.0	20	0	95	80-130	0			
Chloromethane	14.88	0.68	1.0	20	0	74.4	46-148	0			
cis-1,2-Dichloroethene	20.3	0.38	1.0	20	0	102	75-134	0			
cis-1,3-Dichloropropene	20.65	0.13	1.0	20	0	103	70-130	0			
Dibromochloromethane	21	0.2	1.0	20	0	105	60-115	0			
Dichlorodifluoromethane	16.63	0.3	1.0	20	0	83.2	20-120	0			
Ethylbenzene	21.45	0.29	1.0	20	0	107	76-123	0			
Isopropylbenzene	20.98	0.17	1.0	20	0	105	80-127	0			
m,p-Xylene	42.25	0.53	2.0	40	0	106	75-130	0			
Methyl tert-butyl ether	20.53	0.21	1.0	20	0	103	68-129	0			
Methylene chloride	18.21	0.16	5.0	20	0	91	75-140	0			
o-Xylene	21.12	0.19	1.0	20	0	106	76-127	0			
Styrene	22.05	0.19	1.0	20	0	110	83-137	0			
Tetrachloroethene	23.9	0.28	1.0	20	0	120	68-166	0			
Toluene	21.73	0.32	1.0	20	0	109	76-125	0			
trans-1,2-Dichloroethene	19.77	0.48	1.0	20	0	98.8	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a**	Instrument ID **VMS8**			Method: **SW8260C**				
trans-1,3-Dichloropropene	20.02	0.15	1.0	20	0	100	56-132	0
Trichloroethene	20.82	0.33	1.0	20	0	104	84-130	0
Trichlorofluoromethane	16.5	0.24	1.0	20	0	82.5	60-140	0
Vinyl chloride	16.63	0.53	1.0	20	0	83.2	50-136	0
Surr: 1,2-Dichloroethane-d4	*18.83*	0	0	*20*	0	*94.2*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.95*	0	0	*20*	0	*99.8*	*80-110*	0
Surr: Dibromofluoromethane	*20.2*	0	0	*20*	0	*101*	*85-115*	0
Surr: Toluene-d8	*20.2*	0	0	*20*	0	*101*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **1805671-19A MS** Units: **µg/L** Analysis Date: **05/19/18 01:55 AM**

Client ID: Run ID: **VMS8_180518B** SeqNo: **5041590** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	895	16	50	1000	0	89.5	75-130	0			
1,1,2,2-Tetrachloroethane	1058	8.5	50	1000	0	106	75-130	0			
1,1,2-Trichloroethane	889.5	11	50	1000	0	89	75-125	0			
1,1-Dichloroethane	931	24	50	1000	70	86.1	68-142	0			
1,1-Dichloroethene	922	18	50	1000	0	92.2	70-145	0			
1,2,3-Trichlorobenzene	918	14	50	1000	0	91.8	70-140	0			
1,2,4-Trichlorobenzene	845.5	12	50	1000	0	84.6	70-135	0			
1,2-Dibromo-3-chloropropane	926	22	50	1000	0	92.6	60-130	0			
1,2-Dibromoethane	1004	8.5	50	1000	0	100	67-155	0			
1,2-Dichlorobenzene	980.5	6	50	1000	0	98	70-130	0			
1,2-Dichloroethane	982.5	5.5	50	1000	62.5	92	78-125	0			
1,2-Dichloropropane	887.5	17	50	1000	0	88.8	75-125	0			
1,3-Dichlorobenzene	928	6.5	50	1000	0	92.8	75-130	0			
1,4-Dichlorobenzene	974.5	6.5	50	1000	0	97.4	75-130	0			
2-Butanone	897.5	24	250	1000	0	89.8	55-150	0			
2-Hexanone	939	25	250	1000	0	93.9	60-135	0			
4-Methyl-2-pentanone	1436	26	50	1000	0	144	77-178	0			
Acetone	921	24	500	1000	0	92.1	60-160	0			
Benzene	926	21	50	1000	0	92.6	85-125	0			
Bromochloromethane	972.5	7.5	50	1000	0	97.2	72-141	0			
Bromodichloromethane	938	11	50	1000	0	93.8	75-125	0			
Bromoform	983	28	50	1000	0	98.3	60-125	0			
Bromomethane	2250	14	50	1000	0	225	30-185	0			S
Carbon disulfide	834	20	50	1000	0	83.4	60-165	0			
Carbon tetrachloride	857	16	50	1000	0	85.7	65-140	0			
Chlorobenzene	901	10	50	1000	0	90.1	80-120	0			
Chloroethane	1790	34	50	1000	1144	64.7	50-140	0			
Chloroform	863	23	50	1000	0	86.3	80-130	0			
Chloromethane	665	34	50	1000	0	66.5	46-148	0			
cis-1,2-Dichloroethene	911.5	19	50	1000	0	91.2	75-134	0			
cis-1,3-Dichloropropene	930.5	6.5	50	1000	0	93	70-130	0			
Dibromochloromethane	903	10	50	1000	0	90.3	60-115	0			
Dichlorodifluoromethane	794.5	15	50	1000	0	79.4	20-120	0			
Ethylbenzene	874.5	14	50	1000	0	87.4	76-123	0			
Isopropylbenzene	835.5	8.5	50	1000	0	83.6	80-127	0			
m,p-Xylene	1719	26	100	2000	0	86	75-130	0			
Methyl tert-butyl ether	1024	10	50	1000	0	102	68-129	0			
Methylene chloride	883	8	250	1000	0	88.3	75-140	0			
o-Xylene	895.5	9.5	50	1000	0	89.6	76-127	0			
Styrene	934.5	9.5	50	1000	0	93.4	83-137	0			
Tetrachloroethene	910	14	50	1000	0	91	68-166	0			
Toluene	957.5	16	50	1000	77.5	88	76-125	0			
trans-1,2-Dichloroethene	949.5	24	50	1000	95	85.4	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

trans-1,3-Dichloropropene	860.5	7.5	50	1000	0	86	56-132	0
Trichloroethene	891.5	16	50	1000	0	89.2	84-130	0
Trichlorofluoromethane	899.5	12	50	1000	0	90	60-140	0
Vinyl chloride	733.5	26	50	1000	0	73.4	50-136	0
Surr: 1,2-Dichloroethane-d4	*1014*	0	0	*1000*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*945.5*	0	0	*1000*	0	*94.6*	*80-110*	0
Surr: Dibromofluoromethane	*1004*	0	0	*1000*	0	*100*	*85-115*	0
Surr: Toluene-d8	*969*	0	0	*1000*	0	*96.9*	*85-110*	0

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a** Instrument ID **VMS8** Method: **SW8260C**

MSD Sample ID: **1805671-19A MSD** Units: **µg/L** Analysis Date: **05/19/18 02:11 AM**

Client ID: Run ID: **VMS8_180518B** SeqNo: **5041591** Prep Date: DF: **50**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1084	16	50	1000	0	108	75-130	895	19.1	30	
1,1,2,2-Tetrachloroethane	1122	8.5	50	1000	0	112	75-130	1058	5.92	30	
1,1,2-Trichloroethane	954.5	11	50	1000	0	95.4	75-125	889.5	7.05	30	
1,1-Dichloroethane	1044	24	50	1000	70	97.4	68-142	931	11.4	30	
1,1-Dichloroethene	1118	18	50	1000	0	112	70-145	922	19.2	30	
1,2,3-Trichlorobenzene	993.5	14	50	1000	0	99.4	70-140	918	7.9	30	
1,2,4-Trichlorobenzene	965	12	50	1000	0	96.5	70-135	845.5	13.2	30	
1,2-Dibromo-3-chloropropane	924.5	22	50	1000	0	92.4	60-130	926	0.162	30	
1,2-Dibromoethane	1040	8.5	50	1000	0	104	67-155	1004	3.57	30	
1,2-Dichlorobenzene	1066	6	50	1000	0	107	70-130	980.5	8.4	30	
1,2-Dichloroethane	1016	5.5	50	1000	62.5	95.4	78-125	982.5	3.35	30	
1,2-Dichloropropane	952.5	17	50	1000	0	95.2	75-125	887.5	7.07	30	
1,3-Dichlorobenzene	1057	6.5	50	1000	0	106	75-130	928	13	30	
1,4-Dichlorobenzene	1075	6.5	50	1000	0	108	75-130	974.5	9.81	30	
2-Butanone	858.5	24	250	1000	0	85.8	55-150	897.5	4.44	30	
2-Hexanone	935.5	25	250	1000	0	93.6	60-135	939	0.373	30	
4-Methyl-2-pentanone	1452	26	50	1000	0	145	77-178	1436	1.18	30	
Acetone	935.5	24	500	1000	0	93.6	60-160	921	1.56	30	
Benzene	1044	21	50	1000	0	104	85-125	926	12	30	
Bromochloromethane	1016	7.5	50	1000	0	102	72-141	972.5	4.33	30	
Bromodichloromethane	977.5	11	50	1000	0	97.8	75-125	938	4.12	30	
Bromoform	1039	28	50	1000	0	104	60-125	983	5.54	30	
Bromomethane	2541	14	50	1000	0	254	30-185	2250	12.1	30	S
Carbon disulfide	1048	20	50	1000	0	105	60-165	834	22.8	30	
Carbon tetrachloride	1066	16	50	1000	0	107	65-140	857	21.8	30	
Chlorobenzene	1034	10	50	1000	0	103	80-120	901	13.7	30	
Chloroethane	1972	34	50	1000	1144	82.8	50-140	1790	9.62	30	
Chloroform	969.5	23	50	1000	0	97	80-130	863	11.6	30	
Chloromethane	775.5	34	50	1000	0	77.6	46-148	665	15.3	30	
cis-1,2-Dichloroethene	1006	19	50	1000	0	101	75-134	911.5	9.86	30	
cis-1,3-Dichloropropene	957.5	6.5	50	1000	0	95.8	70-130	930.5	2.86	30	
Dibromochloromethane	962	10	50	1000	0	96.2	60-115	903	6.33	30	
Dichlorodifluoromethane	968.5	15	50	1000	0	96.8	20-120	794.5	19.7	30	
Ethylbenzene	1058	14	50	1000	0	106	76-123	874.5	19	30	
Isopropylbenzene	1044	8.5	50	1000	0	104	80-127	835.5	22.2	30	
m,p-Xylene	2103	26	100	2000	0	105	75-130	1719	20.1	30	
Methyl tert-butyl ether	1050	10	50	1000	0	105	68-129	1024	2.6	30	
Methylene chloride	945	8	250	1000	0	94.5	75-140	883	6.78	30	
o-Xylene	1050	9.5	50	1000	0	105	76-127	895.5	15.9	30	
Styrene	1076	9.5	50	1000	0	108	83-137	934.5	14.1	30	
Tetrachloroethene	1128	14	50	1000	0	113	68-166	910	21.4	30	
Toluene	1124	16	50	1000	77.5	105	76-125	957.5	16	30	
trans-1,2-Dichloroethene	1125	24	50	1000	95	103	80-140	949.5	16.9	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236211a**	Instrument ID **VMS8**			Method: **SW8260C**						
trans-1,3-Dichloropropene	959	7.5	50	1000	0	95.9	56-132	860.5	10.8	30
Trichloroethene	1009	16	50	1000	0	101	84-130	891.5	12.4	30
Trichlorofluoromethane	1100	12	50	1000	0	110	60-140	899.5	20.1	30
Vinyl chloride	937.5	26	50	1000	0	93.8	50-136	733.5	24.4	30
Surr: 1,2-Dichloroethane-d4	*930*	0	0	*1000*	0	*93*	*75-120*	1014	*8.59*	*30*
Surr: 4-Bromofluorobenzene	*959*	0	0	*1000*	0	*95.9*	*80-110*	945.5	*1.42*	*30*
Surr: Dibromofluoromethane	*1017*	0	0	*1000*	0	*102*	*85-115*	1004	*1.29*	*30*
Surr: Toluene-d8	*992*	0	0	*1000*	0	*99.2*	*85-110*	969	*2.35*	*30*

The following samples were analyzed in this batch: 1805786-03A 1805786-16A 1805786-17A 1805786-18A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R235805A** Instrument ID **TOC3** Method: **SW9060A**

MBLK Sample ID: **MBLK-R235805A** Units: **mg/L** Analysis Date: **05/12/18 03:56 PM**
Client ID: Run ID: **TOC3_180512A** SeqNo: **5031283** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.06	0.055	0.50								J

LCS Sample ID: **LCS-R235805A** Units: **mg/L** Analysis Date: **05/12/18 03:56 PM**
Client ID: Run ID: **TOC3_180512A** SeqNo: **5031284** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	4.958	0.055	0.50	5	0	99.2	91-110	0			

The following samples were analyzed in this batch: 1805786-23D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

Client: Gannett Fleming, Inc.
Work Order: 1805786
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R236116** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK Sample ID: **MBLK-R236116** Units: **mg/L** Analysis Date: **05/17/18 09:57 AM**
Client ID: Run ID: **LACHAT2_180517D** SeqNo: **5039264** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	U	0.012	0.020								

LCS Sample ID: **LCS-R236116** Units: **mg/L** Analysis Date: **05/17/18 09:57 AM**
Client ID: Run ID: **LACHAT2_180517D** SeqNo: **5039265** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.166	0.012	0.020	5	0	103	80-120	0			

MS Sample ID: **18051008-01A MS** Units: **mg/L** Analysis Date: **05/17/18 09:57 AM**
Client ID: Run ID: **LACHAT2_180517D** SeqNo: **5039270** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.244	0.012	0.020	5	0.3768	97.3	75-125	0			

MSD Sample ID: **18051008-01A MSD** Units: **mg/L** Analysis Date: **05/17/18 09:57 AM**
Client ID: Run ID: **LACHAT2_180517D** SeqNo: **5039271** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.256	0.012	0.020	5	0.3768	97.6	75-125	5.244	0.229	20	

The following samples were analyzed in this batch: 1805786-23E

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 2

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South Charleston, WV +1 304 356 3168
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Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185397

ALS Project Manager: PS | ALS Work Order #: 1805786

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc	C	
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	W-1	5/9/18	11:55	GW	HCl	3	3										
2	W-1A		12:15														
3	W-1D		13:55														
4	W-2		8:45														
5	W-2 dup		"														
6	W-2A		13:25														
7	W-2B		13:55														
8	W-3		10:15														
9	W-4		11:10														
10	W-5		14:00														

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by: Chelsea Payne	Date: 12:30 → 5/10/18	Time:	Received by: FedEx	Notes:
Relinquished by: FedEx	Date: 5/11/18	Time: 0930	Received by (Laboratory):	Cooler ID: 5R2 — Cooler Temp.: 2.8°C — QC Package: (Check One Box Below)
Logged by (Laboratory): KW	Date: 5/11/18	Time: 1345	Checked by (Laboratory): TBS	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185393

ALS Project Manager: TBB | ALS Work Order #: 1805786

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6984	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc.	C	
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
11	W-6	5/9/18	16:05	GW	HCl	3	3										
12	W-6 dup		16:05														
13	W-17		9:40														
14	W-17A		9:25														
15	W-17A dup		9:30														
16	W-17B		8:55														
17	W-22		10:50														
18	W-26		8:15														
19	W-29		11:10														
20	W-30A		12:20														

Sampler(s) Please Print & Sign: [signature]

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by: [signature]	Date: 5/10/18	Time: 12:30	Received by: FedEx	Notes:	
Relinquished by: FedEx	Date: 5/11/18	Time: 0930	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory): LRW	Date: 5/11/18	Time: 1345	Checked by (Laboratory): TBB		

QC Package: (Check One Box Below)

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
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Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 185392

ALS Project Manager: [illegible] | ALS Work Order #: 1805786

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Quote 6934	Project Name	WRR	A	VOCs 8260
Work Order		Project Number	55929.005	B	Methane, Ethane, Ethene
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc.	C	Dissolved Fe, Mn
Send Report To		Invoice Attn	Accounts Payable	D	Nitrogen- Nitrates, Nitrites
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	Total Organic Carbon
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
21	W-30B	5/9/18	12:05	GW	HCl	3	3										
22	W-32		14:35	GW	HCl, HNO_3	7	3	3	1								
23	W-34		15:00		HCl, HNO_3, H_2SO_4	9	3	3	1	1	1						
24	MW-106		11:40		HCl	3	3										
25	MW-106A		11:25														
26	MW-113		7:50														
27	MW-113A		7:00														
28	MW-113B		7:15														
29	MW-116		10:30														
30	Method Blank		9:05														

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by:	Date: 5/10/18	Time: 12:30	Received by: FedEx
Relinquished by: FedEx	Date: 5/11/18	Time: 0930	Received by (Laboratory):
Logged by (Laboratory): KW	Date: 5/11/18	Time: 1345	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Chain of Custody Form

COC ID: 47606

ALS Project Manager: TBB | ALS Work Order #: 1805786

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	~~Quote 2067~~ Quote 6934	Project Name	~~[illegible]~~ WRR	A	VOCs - project specific list (EPA 8260)
Work Order		Project Number	~~24867.000~~ 55929.005	B	~~Oil & Grease~~
Company Name	Gannett Fleming, Inc.	Bill To Company	Gannett Fleming, Inc	C	~~PAHs (SIM)~~
Send Report To	Anthony Miller	Invoice Attn	Accounts Payable	D	
Address	8025 Excelsior Dr.	Address	8025 Excelsior Dr.	E	
				F	
City/State/Zip	Madison, WI 53717	City/State/Zip	Madison, WI 53717	G	
Phone	(608) 836-1500	Phone	(608) 836-1500	H	
Fax		Fax		I	
e-Mail Address	awmiller@gfnet.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Trip Blank	5/9/18		GW	HCl	2	2										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Chelsea Pape

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by: Chelsea Pape	Date: 5/10/18	Time: 12:30	Received by: FedEx	
Relinquished by: FedEx	Date: 5/11/18	Time: 0930	Received by (Laboratory):	
Logged by (Laboratory): KW	Date: 5/11/18	Time: 1345	Checked by (Laboratory): TBB	

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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ALS Group, USA

Sample Receipt Checklist

Client Name: **GANNETTFLEMING - WI** Date/Time Received: **11-May-18 09:30**

Work Order: **1805786** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 11-May-18 (Date) Reviewed by: Tom Bramish (eSignature) 11-May-18 (Date)

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8/2.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/11/2018 2:16:40 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Revision: 2

10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Anthony Miller
Gannett Fleming
8025 Excelsior Drive
Madison, WI 53717

Phone: 608.836.1500

Fax: 608.831.3337

Identifier: 016PI **Date Rec:** 09/07/2018 **Report Date:** 09/12/2018

Client Project #: 55929.005 **Client Project Name:** WRR

Purchase Order #:

Analysis Requested: CENSUS

The analytical results & QA/QC data included with this report were reviewed and approved by AWM on 09/12/18.

Reviewed By:

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Gannett Fleming**
Project: WRR

MI Project Number: **016PI**
Date Received: 09/07/2018

Sample Information

Client Sample ID:		**W-32**	**W-33**	**W-34**	**SVE-4**
Sample Date:		09/06/2018	09/06/2018	09/06/2018	09/06/2018
Units:		cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		CB	CB	CB	CB
Dechlorinating Bacteria					
Dehalococcoides	*DHC*	<5.00E-01	**6.75E+03**	**4.16E+01**	**1.09E+02**
tceA Reductase	TCE	<5.00E-01	**3.80E+00**	**2.56E+01**	**6.74E+01**
BAV1 Vinyl Chloride Reductase	BVC	<5.00E-01	**8.49E+02**	**2.00E+00**	**9.80E+00**
Vinyl Chloride Reductase	VCR	<5.00E-01	**7.42E+02**	**3.70E+00**	**1.27E+01**
Dehalobacter spp.	*DHBt*	<4.80E+00	**1.93E+03**	**6.59E+05**	**2.36E+04**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **9/7/2018**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	09/07/2018	09/12/2018	1 °C	87%	non-detect	non-detect
DHBt	09/07/2018	09/12/2018	1 °C	99%	non-detect	non-detect
BVC	09/07/2018	09/12/2018	1 °C	99%	non-detect	non-detect
TCE	09/07/2018	09/12/2018	1 °C	96%	non-detect	non-detect
VCR	09/07/2018	09/12/2018	1 °C	101%	non-detect	non-detect

REPORT TO:

Name: Tony Miller
Company: Gannett Fleming
Address: 8025 Excelsior Dr
Madison, WI
53717
email: awMiller@gfnet.com
Phone: 608-836-1500
Fax:

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name:
Company:
Address:
email:
Phone:
Fax:

microbialinsights
10515 Research Dr
Knoxville, TN 37932
865-573-8188
www.microbe.com

Project Manager: Tony Miller
Project Name: WRR
Project No.: 55929.005

Purchase Order No.
Subcontract No.
MI Quote No.

Please Check One:
☐ More samples to follow
☐ No Additional Samples

Report Type: ☒ Standard (default) ☐ Microbial Insights Level III raw data (15% surcharge) ☐ Microbial Insights Level IV (25% surcharge) ☐ Comprehensive Interpretive (15%) ☐ Historical Interpretive (35%)

EDD type: ☒ Microbial Insights Standard (default) ☐ All other available EDDs (5% surcharge) Specify EDD Type:

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses				CENSUS: Please select the target organism/gene																						
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococcoides)	DHC Functional genes (bvc, tce, vcr)	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfitobacterium)	EBAC (Total)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Dentrifiers-nirS and nirK)	AMO (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Napthalene-aerobic)	BSSA (Toluene/Xylene-Anaerobic)	add. qPCR:	RNA (Expression Option)*	Other:	Other:	Other:
016 PI 1	W-32	9/6	1420	GW	1						X	X	X																			
2	W-33	|	1515	|	|					|	|	|																		
3	W-34	|	1125	|	|					|	|	|																		
4	SVE-4	/	1250	/	/						/	/	/																			

Relinquished by: Marcus Mussey Date 9/6/18 Received by: Date 9/7/18 9:38

It is vital that chain of custody is filled out correctly & that all relative information is provided.
Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 25, 2018

Tony Miller
Gannett Fleming
8025 Excelsior Drive
Madison, WI 53717

RE: Project: 55929.005 WRR
Pace Project No.: 40175439

Dear Tony Miller:
Enclosed are the analytical results for sample(s) received by the laboratory on September 07, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report: Ethane and Ethene are included on this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Chelsea Payne, Gannett Fleming Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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CERTIFICATIONS

Project: 55929.005 WRR
Pace Project No.: 40175439

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 55929.005 WRR
Pace Project No.: 40175439

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40175439001	**W-32**	Water	09/06/18 14:20	09/07/18 09:25
40175439002	**W-33**	Water	09/06/18 15:15	09/07/18 09:25
40175439003	**W-34**	Water	09/06/18 11:25	09/07/18 09:25
40175439004	**SVE-4**	Water	09/06/18 12:50	09/07/18 09:25
40175439005	**TRIP BLANK**	Water	09/06/18 00:00	09/07/18 09:25

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 55929.005 WRR
Pace Project No.: 40175439

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40175439001	**W-32**	EPA 8015B Modified	ALD	3
		EPA 6010	TXW	2
		EPA 8260	LAP	69
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		SM 5310C	TJJ	1
40175439002	**W-33**	EPA 8015B Modified	ALD	3
		EPA 6010	TXW	2
		EPA 8260	LAP	69
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		SM 5310C	TJJ	1
40175439003	**W-34**	EPA 8015B Modified	ALD	3
		EPA 6010	TXW	2
		EPA 8260	LAP	69
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		SM 5310C	TJJ	1
40175439004	**SVE-4**	EPA 8015B Modified	ALD	3
		EPA 6010	TXW	2
		EPA 8260	LAP	69
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		SM 5310C	TJJ	1
40175439005	**TRIP BLANK**	EPA 8260	HNW	69

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 55929.005 WRR
Pace Project No.: 40175439

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40175439001	**W-32**					
EPA 6010	Iron, Dissolved	59.6J	ug/L	118	09/21/18 09:57	
EPA 6010	Manganese, Dissolved	114	ug/L	5.0	09/21/18 09:57	
EPA 8260	1,1,1-Trichloroethane	6980	ug/L	100	09/12/18 14:38	
EPA 8260	1,1-Dichloroethane	98.0J	ug/L	100	09/12/18 14:38	
EPA 8260	1,1-Dichloroethene	317	ug/L	100	09/12/18 14:38	
EPA 8260	Methylene Chloride	61.2J	ug/L	500	09/12/18 14:38	B
EPA 8260	Tetrachloroethene	4130	ug/L	109	09/12/18 14:38	
EPA 8260	Trichloroethene	6700	ug/L	100	09/12/18 14:38	
EPA 8260	cis-1,2-Dichloroethene	262	ug/L	100	09/12/18 14:38	
EPA 300.0	Sulfate	57.8	mg/L	15.0	09/10/18 16:08	
EPA 310.2	Alkalinity, Total as CaCO3	104	mg/L	23.5	09/13/18 09:35	
SM 5310C	Total Organic Carbon	10.9	mg/L	8.4	09/18/18 20:29	
40175439002	**W-33**					
EPA 8015B Modified	Ethane	1.5J	ug/L	5.6	09/11/18 08:54	
EPA 8015B Modified	Ethene	6.4	ug/L	5.0	09/11/18 08:54	
EPA 8015B Modified	Methane	11.6	ug/L	2.8	09/11/18 08:54	
EPA 6010	Iron, Dissolved	54500	ug/L	23600	09/21/18 10:00	
EPA 6010	Manganese, Dissolved	4120	ug/L	1000	09/21/18 10:00	
EPA 8260	1,1,1-Trichloroethane	2590	ug/L	125	09/12/18 15:01	
EPA 8260	1,1-Dichloroethane	2270	ug/L	125	09/12/18 15:01	
EPA 8260	1,1-Dichloroethene	87.1J	ug/L	125	09/12/18 15:01	
EPA 8260	Chloroethane	198J	ug/L	625	09/12/18 15:01	
EPA 8260	Ethylbenzene	100J	ug/L	125	09/12/18 15:01	
EPA 8260	Methylene Chloride	297J	ug/L	625	09/12/18 15:01	B
EPA 8260	Tetrachloroethene	293	ug/L	136	09/12/18 15:01	
EPA 8260	Toluene	120J	ug/L	625	09/12/18 15:01	
EPA 8260	Trichloroethene	212	ug/L	125	09/12/18 15:01	
EPA 8260	Vinyl chloride	212	ug/L	125	09/12/18 15:01	
EPA 8260	Xylene (Total)	440	ug/L	375	09/12/18 15:01	
EPA 8260	cis-1,2-Dichloroethene	9810	ug/L	125	09/12/18 15:01	
EPA 8260	m&p-Xylene	231J	ug/L	250	09/12/18 15:01	
EPA 8260	o-Xylene	209	ug/L	125	09/12/18 15:01	
EPA 300.0	Sulfate	39.4	mg/L	15.0	09/10/18 16:22	
EPA 310.2	Alkalinity, Total as CaCO3	256	mg/L	23.5	09/13/18 09:36	
SM 5310C	Total Organic Carbon	10.8	mg/L	8.4	09/19/18 09:17	
40175439003	**W-34**					
EPA 8015B Modified	Ethane	32.1	ug/L	5.6	09/11/18 09:01	
EPA 8015B Modified	Ethene	30.2	ug/L	5.0	09/11/18 09:01	
EPA 8015B Modified	Methane	18.0	ug/L	2.8	09/11/18 09:01	
EPA 6010	Iron, Dissolved	131000	ug/L	23600	09/21/18 10:02	
EPA 6010	Manganese, Dissolved	7970	ug/L	1000	09/21/18 10:02	
EPA 8260	1,1,1-Trichloroethane	2830	ug/L	125	09/12/18 15:23	
EPA 8260	1,1,2-Trichloroethane	588J	ug/L	625	09/12/18 15:23	
EPA 8260	1,1-Dichloroethane	1720	ug/L	125	09/12/18 15:23	
EPA 8260	1,1-Dichloroethene	1190	ug/L	125	09/12/18 15:23	
EPA 8260	1,2-Dichloroethane	102J	ug/L	125	09/12/18 15:23	

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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SUMMARY OF DETECTION

Project: 55929.005 WRR
Pace Project No.: 40175439

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40175439003	**W-34**					
EPA 8260	1,2-Dichloropropane	207	ug/L	125	09/12/18 15:23	
EPA 8260	Methylene Chloride	1080	ug/L	625	09/12/18 15:23	
EPA 8260	Toluene	82.3J	ug/L	625	09/12/18 15:23	
EPA 8260	Trichloroethene	110J	ug/L	125	09/12/18 15:23	
EPA 8260	Vinyl chloride	66.6J	ug/L	125	09/12/18 15:23	
EPA 8260	cis-1,2-Dichloroethene	32400	ug/L	125	09/12/18 15:23	
EPA 300.0	Sulfate	10.1J	mg/L	15.0	09/10/18 16:36	D3
EPA 310.2	Alkalinity, Total as CaCO3	194	mg/L	23.5	09/13/18 09:36	
SM 5310C	Total Organic Carbon	75.0	mg/L	50.4	09/18/18 21:11	
40175439004	**SVE-4**					
EPA 8015B Modified	Ethane	306	ug/L	5.6	09/11/18 09:08	
EPA 8015B Modified	Ethene	409	ug/L	5.0	09/11/18 09:08	
EPA 8015B Modified	Methane	160	ug/L	5.6	09/11/18 12:26	
EPA 6010	Iron, Dissolved	689000	ug/L	23600	09/21/18 10:05	
EPA 6010	Manganese, Dissolved	9810	ug/L	1000	09/21/18 10:05	
EPA 8260	1,1,1-Trichloroethane	456	ug/L	400	09/12/18 15:46	
EPA 8260	1,1-Dichloroethane	995	ug/L	400	09/12/18 15:46	
EPA 8260	1,1-Dichloroethene	255J	ug/L	400	09/12/18 15:46	
EPA 8260	Methylene Chloride	1620J	ug/L	2000	09/12/18 15:46	B
EPA 8260	Tetrachloroethene	518	ug/L	435	09/12/18 15:46	
EPA 8260	Toluene	69.2J	ug/L	2000	09/12/18 15:46	
EPA 8260	Trichloroethene	339J	ug/L	400	09/12/18 15:46	
EPA 8260	Vinyl chloride	259J	ug/L	400	09/12/18 15:46	
EPA 8260	cis-1,2-Dichloroethene	21500	ug/L	400	09/12/18 15:46	
EPA 310.2	Alkalinity, Total as CaCO3	355	mg/L	23.5	09/13/18 09:37	
SM 5310C	Total Organic Carbon	2570	mg/L	840	09/19/18 09:38	

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ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-32 **Lab ID: 40175439001** Collected: 09/06/18 14:20 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified								
Ethane	**<0.58**	ug/L	5.6	0.58	1		09/11/18 08:47	74-84-0	
Ethene	**<0.52**	ug/L	5.0	0.52	1		09/11/18 08:47	74-85-1	
Methane	**<1.4**	ug/L	2.8	1.4	1		09/11/18 08:47	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**59.6J**	ug/L	118	35.4	1		09/21/18 09:57	7439-89-6	
Manganese, Dissolved	**114**	ug/L	5.0	1.1	1		09/21/18 09:57	7439-96-5	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<26.9**	ug/L	100	26.9	100		09/12/18 14:38	630-20-6	
1,1,1-Trichloroethane	**6980**	ug/L	100	24.5	100		09/12/18 14:38	71-55-6	
1,1,2,2-Tetrachloroethane	**<27.5**	ug/L	100	27.5	100		09/12/18 14:38	79-34-5	
1,1,2-Trichloroethane	**<55.2**	ug/L	500	55.2	100		09/12/18 14:38	79-00-5	
1,1-Dichloroethane	**98.0J**	ug/L	100	27.3	100		09/12/18 14:38	75-34-3	
1,1-Dichloroethene	**317**	ug/L	100	24.5	100		09/12/18 14:38	75-35-4	
1,1-Dichloropropene	**<54.0**	ug/L	180	54.0	100		09/12/18 14:38	563-58-6	
1,2,3-Trichlorobenzene	**<62.6**	ug/L	500	62.6	100		09/12/18 14:38	87-61-6	
1,2,3-Trichloropropane	**<59.1**	ug/L	500	59.1	100		09/12/18 14:38	96-18-4	
1,2,4-Trichlorobenzene	**<95.1**	ug/L	500	95.1	100		09/12/18 14:38	120-82-1	
1,2,4-Trimethylbenzene	**<84.1**	ug/L	280	84.1	100		09/12/18 14:38	95-63-6	
1,2-Dibromo-3-chloropropane	**<176**	ug/L	588	176	100		09/12/18 14:38	96-12-8	
1,2-Dibromoethane (EDB)	**<82.9**	ug/L	276	82.9	100		09/12/18 14:38	106-93-4	
1,2-Dichlorobenzene	**<70.5**	ug/L	235	70.5	100		09/12/18 14:38	95-50-1	
1,2-Dichloroethane	**<28.0**	ug/L	100	28.0	100		09/12/18 14:38	107-06-2	
1,2-Dichloropropane	**<28.3**	ug/L	100	28.3	100		09/12/18 14:38	78-87-5	
1,3,5-Trimethylbenzene	**<87.3**	ug/L	291	87.3	100		09/12/18 14:38	108-67-8	
1,3-Dichlorobenzene	**<62.8**	ug/L	209	62.8	100		09/12/18 14:38	541-73-1	
1,3-Dichloropropane	**<82.6**	ug/L	275	82.6	100		09/12/18 14:38	142-28-9	
1,4-Dichlorobenzene	**<94.4**	ug/L	315	94.4	100		09/12/18 14:38	106-46-7	
2,2-Dichloropropane	**<227**	ug/L	755	227	100		09/12/18 14:38	594-20-7	
2-Butanone (MEK)	**<294**	ug/L	2000	294	100		09/12/18 14:38	78-93-3	
2-Chlorotoluene	**<92.6**	ug/L	500	92.6	100		09/12/18 14:38	95-49-8	
2-Propanol	**<2890**	ug/L	25000	2890	100		09/12/18 14:38	67-63-0	
4-Chlorotoluene	**<75.6**	ug/L	252	75.6	100		09/12/18 14:38	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<153**	ug/L	510	153	100		09/12/18 14:38	108-10-1	
Acetone	**<274**	ug/L	2000	274	100		09/12/18 14:38	67-64-1	
Benzene	**<24.6**	ug/L	100	24.6	100		09/12/18 14:38	71-43-2	
Bromobenzene	**<24.1**	ug/L	100	24.1	100		09/12/18 14:38	108-86-1	
Bromochloromethane	**<36.2**	ug/L	500	36.2	100		09/12/18 14:38	74-97-5	
Bromodichloromethane	**<36.4**	ug/L	121	36.4	100		09/12/18 14:38	75-27-4	
Bromoform	**<397**	ug/L	1320	397	100		09/12/18 14:38	75-25-2	
Bromomethane	**<97.1**	ug/L	500	97.1	100		09/12/18 14:38	74-83-9	
Carbon tetrachloride	**<16.6**	ug/L	100	16.6	100		09/12/18 14:38	56-23-5	
Chlorobenzene	**<71.1**	ug/L	237	71.1	100		09/12/18 14:38	108-90-7	
Chloroethane	**<134**	ug/L	500	134	100		09/12/18 14:38	75-00-3	
Chloroform	**<127**	ug/L	500	127	100		09/12/18 14:38	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-32 **Lab ID: 40175439001** Collected: 09/06/18 14:20 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Chloromethane	**<219**	ug/L	730	219	100		09/12/18 14:38	74-87-3	
Dibromochloromethane	**<260**	ug/L	867	260	100		09/12/18 14:38	124-48-1	
Dibromomethane	**<93.7**	ug/L	312	93.7	100		09/12/18 14:38	74-95-3	
Dichlorodifluoromethane	**<50.0**	ug/L	500	50.0	100		09/12/18 14:38	75-71-8	
Diisopropyl ether	**<189**	ug/L	629	189	100		09/12/18 14:38	108-20-3	
Ethylbenzene	**<21.8**	ug/L	100	21.8	100		09/12/18 14:38	100-41-4	
Hexachloro-1,3-butadiene	**<118**	ug/L	500	118	100		09/12/18 14:38	87-68-3	
Isopropylbenzene (Cumene)	**<39.3**	ug/L	500	39.3	100		09/12/18 14:38	98-82-8	
Methyl-tert-butyl ether	**<125**	ug/L	415	125	100		09/12/18 14:38	1634-04-4	
Methylene Chloride	**61.2J**	ug/L	500	58.1	100		09/12/18 14:38	75-09-2	B
Naphthalene	**<118**	ug/L	500	118	100		09/12/18 14:38	91-20-3	
Styrene	**<46.5**	ug/L	155	46.5	100		09/12/18 14:38	100-42-5	
Tetrachloroethene	**4130**	ug/L	109	32.6	100		09/12/18 14:38	127-18-4	
Toluene	**<17.2**	ug/L	500	17.2	100		09/12/18 14:38	108-88-3	
Trichloroethene	**6700**	ug/L	100	25.5	100		09/12/18 14:38	79-01-6	
Trichlorofluoromethane	**<21.5**	ug/L	100	21.5	100		09/12/18 14:38	75-69-4	
Vinyl chloride	**<17.5**	ug/L	100	17.5	100		09/12/18 14:38	75-01-4	
Xylene (Total)	**<150**	ug/L	300	150	100		09/12/18 14:38	1330-20-7	
cis-1,2-Dichloroethene	**262**	ug/L	100	27.1	100		09/12/18 14:38	156-59-2	
cis-1,3-Dichloropropene	**<363**	ug/L	1210	363	100		09/12/18 14:38	10061-01-5	
m&p-Xylene	**<46.5**	ug/L	200	46.5	100		09/12/18 14:38	179601-23-1	
n-Butylbenzene	**<70.8**	ug/L	236	70.8	100		09/12/18 14:38	104-51-8	
n-Propylbenzene	**<81.1**	ug/L	500	81.1	100		09/12/18 14:38	103-65-1	
o-Xylene	**<26.2**	ug/L	100	26.2	100		09/12/18 14:38	95-47-6	
p-Isopropyltoluene	**<80.0**	ug/L	267	80.0	100		09/12/18 14:38	99-87-6	
sec-Butylbenzene	**<84.9**	ug/L	500	84.9	100		09/12/18 14:38	135-98-8	
tert-Butylbenzene	**<30.4**	ug/L	101	30.4	100		09/12/18 14:38	98-06-6	
trans-1,2-Dichloroethene	**<109**	ug/L	364	109	100		09/12/18 14:38	156-60-5	
trans-1,3-Dichloropropene	**<437**	ug/L	1460	437	100		09/12/18 14:38	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	103	%	70-130		100		09/12/18 14:38	1868-53-7	
Toluene-d8 (S)	104	%	70-130		100		09/12/18 14:38	2037-26-5	
4-Bromofluorobenzene (S)	86	%	70-130		100		09/12/18 14:38	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**57.8**	mg/L	15.0	5.0	5		09/10/18 16:08	14808-79-8	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**104**	mg/L	23.5	7.0	1		09/13/18 09:35		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**10.9**	mg/L	8.4	2.5	10		09/18/18 20:29	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-33 **Lab ID: 40175439002** Collected: 09/06/18 15:15 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified								
Ethane	**1.5J**	ug/L	5.6	0.58	1		09/11/18 08:54	74-84-0	
Ethene	**6.4**	ug/L	5.0	0.52	1		09/11/18 08:54	74-85-1	
Methane	**11.6**	ug/L	2.8	1.4	1		09/11/18 08:54	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**54500**	ug/L	23600	7070	200		09/21/18 10:00	7439-89-6	
Manganese, Dissolved	**4120**	ug/L	1000	226	200		09/21/18 10:00	7439-96-5	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<33.6**	ug/L	125	33.6	125		09/12/18 15:01	630-20-6	
1,1,1-Trichloroethane	**2590**	ug/L	125	30.6	125		09/12/18 15:01	71-55-6	
1,1,2,2-Tetrachloroethane	**<34.4**	ug/L	125	34.4	125		09/12/18 15:01	79-34-5	
1,1,2-Trichloroethane	**<69.0**	ug/L	625	69.0	125		09/12/18 15:01	79-00-5	
1,1-Dichloroethane	**2270**	ug/L	125	34.1	125		09/12/18 15:01	75-34-3	
1,1-Dichloroethene	**87.1J**	ug/L	125	30.6	125		09/12/18 15:01	75-35-4	
1,1-Dichloropropene	**<67.6**	ug/L	225	67.6	125		09/12/18 15:01	563-58-6	
1,2,3-Trichlorobenzene	**<78.2**	ug/L	625	78.2	125		09/12/18 15:01	87-61-6	
1,2,3-Trichloropropane	**<73.8**	ug/L	625	73.8	125		09/12/18 15:01	96-18-4	
1,2,4-Trichlorobenzene	**<119**	ug/L	625	119	125		09/12/18 15:01	120-82-1	
1,2,4-Trimethylbenzene	**<105**	ug/L	350	105	125		09/12/18 15:01	95-63-6	
1,2-Dibromo-3-chloropropane	**<220**	ug/L	735	220	125		09/12/18 15:01	96-12-8	
1,2-Dibromoethane (EDB)	**<104**	ug/L	346	104	125		09/12/18 15:01	106-93-4	
1,2-Dichlorobenzene	**<88.2**	ug/L	294	88.2	125		09/12/18 15:01	95-50-1	
1,2-Dichloroethane	**<35.0**	ug/L	125	35.0	125		09/12/18 15:01	107-06-2	
1,2-Dichloropropane	**<35.3**	ug/L	125	35.3	125		09/12/18 15:01	78-87-5	
1,3,5-Trimethylbenzene	**<109**	ug/L	364	109	125		09/12/18 15:01	108-67-8	
1,3-Dichlorobenzene	**<78.5**	ug/L	262	78.5	125		09/12/18 15:01	541-73-1	
1,3-Dichloropropane	**<103**	ug/L	344	103	125		09/12/18 15:01	142-28-9	
1,4-Dichlorobenzene	**<118**	ug/L	393	118	125		09/12/18 15:01	106-46-7	
2,2-Dichloropropane	**<283**	ug/L	944	283	125		09/12/18 15:01	594-20-7	
2-Butanone (MEK)	**<367**	ug/L	2500	367	125		09/12/18 15:01	78-93-3	
2-Chlorotoluene	**<116**	ug/L	625	116	125		09/12/18 15:01	95-49-8	
2-Propanol	**<3610**	ug/L	31200	3610	125		09/12/18 15:01	67-63-0	
4-Chlorotoluene	**<94.5**	ug/L	315	94.5	125		09/12/18 15:01	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<191**	ug/L	638	191	125		09/12/18 15:01	108-10-1	
Acetone	**<343**	ug/L	2500	343	125		09/12/18 15:01	67-64-1	
Benzene	**<30.8**	ug/L	125	30.8	125		09/12/18 15:01	71-43-2	
Bromobenzene	**<30.1**	ug/L	125	30.1	125		09/12/18 15:01	108-86-1	
Bromochloromethane	**<45.3**	ug/L	625	45.3	125		09/12/18 15:01	74-97-5	
Bromodichloromethane	**<45.5**	ug/L	152	45.5	125		09/12/18 15:01	75-27-4	
Bromoform	**<496**	ug/L	1650	496	125		09/12/18 15:01	75-25-2	
Bromomethane	**<121**	ug/L	625	121	125		09/12/18 15:01	74-83-9	
Carbon tetrachloride	**<20.7**	ug/L	125	20.7	125		09/12/18 15:01	56-23-5	
Chlorobenzene	**<88.9**	ug/L	296	88.9	125		09/12/18 15:01	108-90-7	
Chloroethane	**198J**	ug/L	625	168	125		09/12/18 15:01	75-00-3	
Chloroform	**<159**	ug/L	625	159	125		09/12/18 15:01	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-33 **Lab ID: 40175439002** Collected: 09/06/18 15:15 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Chloromethane	**<274**	ug/L	912	274	125		09/12/18 15:01	74-87-3	
Dibromochloromethane	**<325**	ug/L	1080	325	125		09/12/18 15:01	124-48-1	
Dibromomethane	**<117**	ug/L	390	117	125		09/12/18 15:01	74-95-3	
Dichlorodifluoromethane	**<62.4**	ug/L	625	62.4	125		09/12/18 15:01	75-71-8	
Diisopropyl ether	**<236**	ug/L	787	236	125		09/12/18 15:01	108-20-3	
Ethylbenzene	**100J**	ug/L	125	27.3	125		09/12/18 15:01	100-41-4	
Hexachloro-1,3-butadiene	**<148**	ug/L	625	148	125		09/12/18 15:01	87-68-3	
Isopropylbenzene (Cumene)	**<49.1**	ug/L	625	49.1	125		09/12/18 15:01	98-82-8	
Methyl-tert-butyl ether	**<156**	ug/L	519	156	125		09/12/18 15:01	1634-04-4	
Methylene Chloride	**297J**	ug/L	625	72.6	125		09/12/18 15:01	75-09-2	B
Naphthalene	**<147**	ug/L	625	147	125		09/12/18 15:01	91-20-3	
Styrene	**<58.2**	ug/L	194	58.2	125		09/12/18 15:01	100-42-5	
Tetrachloroethene	**293**	ug/L	136	40.8	125		09/12/18 15:01	127-18-4	
Toluene	**120J**	ug/L	625	21.5	125		09/12/18 15:01	108-88-3	
Trichloroethene	**212**	ug/L	125	31.9	125		09/12/18 15:01	79-01-6	
Trichlorofluoromethane	**<26.9**	ug/L	125	26.9	125		09/12/18 15:01	75-69-4	
Vinyl chloride	**212**	ug/L	125	21.8	125		09/12/18 15:01	75-01-4	
Xylene (Total)	**440**	ug/L	375	188	125		09/12/18 15:01	1330-20-7	
cis-1,2-Dichloroethene	**9810**	ug/L	125	33.9	125		09/12/18 15:01	156-59-2	
cis-1,3-Dichloropropene	**<454**	ug/L	1510	454	125		09/12/18 15:01	10061-01-5	
m&p-Xylene	**231J**	ug/L	250	58.2	125		09/12/18 15:01	179601-23-1	
n-Butylbenzene	**<88.5**	ug/L	295	88.5	125		09/12/18 15:01	104-51-8	
n-Propylbenzene	**<101**	ug/L	625	101	125		09/12/18 15:01	103-65-1	
o-Xylene	**209**	ug/L	125	32.7	125		09/12/18 15:01	95-47-6	
p-Isopropyltoluene	**<100**	ug/L	333	100	125		09/12/18 15:01	99-87-6	
sec-Butylbenzene	**<106**	ug/L	625	106	125		09/12/18 15:01	135-98-8	
tert-Butylbenzene	**<38.0**	ug/L	127	38.0	125		09/12/18 15:01	98-06-6	
trans-1,2-Dichloroethene	**<136**	ug/L	454	136	125		09/12/18 15:01	156-60-5	
trans-1,3-Dichloropropene	**<546**	ug/L	1820	546	125		09/12/18 15:01	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	106	%	70-130		125		09/12/18 15:01	1868-53-7	
Toluene-d8 (S)	104	%	70-130		125		09/12/18 15:01	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		125		09/12/18 15:01	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**39.4**	mg/L	15.0	5.0	5		09/10/18 16:22	14808-79-8	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**256**	mg/L	23.5	7.0	1		09/13/18 09:36		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**10.8**	mg/L	8.4	2.5	10		09/19/18 09:17	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-34 **Lab ID: 40175439003** Collected: 09/06/18 11:25 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified								
Ethane	**32.1**	ug/L	5.6	0.58	1		09/11/18 09:01	74-84-0	
Ethene	**30.2**	ug/L	5.0	0.52	1		09/11/18 09:01	74-85-1	
Methane	**18.0**	ug/L	2.8	1.4	1		09/11/18 09:01	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**131000**	ug/L	23600	7070	200		09/21/18 10:02	7439-89-6	
Manganese, Dissolved	**7970**	ug/L	1000	226	200		09/21/18 10:02	7439-96-5	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<33.6**	ug/L	125	33.6	125		09/12/18 15:23	630-20-6	
1,1,1-Trichloroethane	**2830**	ug/L	125	30.6	125		09/12/18 15:23	71-55-6	
1,1,2,2-Tetrachloroethane	**<34.4**	ug/L	125	34.4	125		09/12/18 15:23	79-34-5	
1,1,2-Trichloroethane	**588J**	ug/L	625	69.0	125		09/12/18 15:23	79-00-5	
1,1-Dichloroethane	**1720**	ug/L	125	34.1	125		09/12/18 15:23	75-34-3	
1,1-Dichloroethene	**1190**	ug/L	125	30.6	125		09/12/18 15:23	75-35-4	
1,1-Dichloropropene	**<67.6**	ug/L	225	67.6	125		09/12/18 15:23	563-58-6	
1,2,3-Trichlorobenzene	**<78.2**	ug/L	625	78.2	125		09/12/18 15:23	87-61-6	
1,2,3-Trichloropropane	**<73.8**	ug/L	625	73.8	125		09/12/18 15:23	96-18-4	
1,2,4-Trichlorobenzene	**<119**	ug/L	625	119	125		09/12/18 15:23	120-82-1	
1,2,4-Trimethylbenzene	**<105**	ug/L	350	105	125		09/12/18 15:23	95-63-6	
1,2-Dibromo-3-chloropropane	**<220**	ug/L	735	220	125		09/12/18 15:23	96-12-8	
1,2-Dibromoethane (EDB)	**<104**	ug/L	346	104	125		09/12/18 15:23	106-93-4	
1,2-Dichlorobenzene	**<88.2**	ug/L	294	88.2	125		09/12/18 15:23	95-50-1	
1,2-Dichloroethane	**102J**	ug/L	125	35.0	125		09/12/18 15:23	107-06-2	
1,2-Dichloropropane	**207**	ug/L	125	35.3	125		09/12/18 15:23	78-87-5	
1,3,5-Trimethylbenzene	**<109**	ug/L	364	109	125		09/12/18 15:23	108-67-8	
1,3-Dichlorobenzene	**<78.5**	ug/L	262	78.5	125		09/12/18 15:23	541-73-1	
1,3-Dichloropropane	**<103**	ug/L	344	103	125		09/12/18 15:23	142-28-9	
1,4-Dichlorobenzene	**<118**	ug/L	393	118	125		09/12/18 15:23	106-46-7	
2,2-Dichloropropane	**<283**	ug/L	944	283	125		09/12/18 15:23	594-20-7	
2-Butanone (MEK)	**<367**	ug/L	2500	367	125		09/12/18 15:23	78-93-3	
2-Chlorotoluene	**<116**	ug/L	625	116	125		09/12/18 15:23	95-49-8	
2-Propanol	**<3610**	ug/L	31200	3610	125		09/12/18 15:23	67-63-0	
4-Chlorotoluene	**<94.5**	ug/L	315	94.5	125		09/12/18 15:23	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<191**	ug/L	638	191	125		09/12/18 15:23	108-10-1	
Acetone	**<343**	ug/L	2500	343	125		09/12/18 15:23	67-64-1	
Benzene	**<30.8**	ug/L	125	30.8	125		09/12/18 15:23	71-43-2	
Bromobenzene	**<30.1**	ug/L	125	30.1	125		09/12/18 15:23	108-86-1	
Bromochloromethane	**<45.3**	ug/L	625	45.3	125		09/12/18 15:23	74-97-5	
Bromodichloromethane	**<45.5**	ug/L	152	45.5	125		09/12/18 15:23	75-27-4	
Bromoform	**<496**	ug/L	1650	496	125		09/12/18 15:23	75-25-2	
Bromomethane	**<121**	ug/L	625	121	125		09/12/18 15:23	74-83-9	
Carbon tetrachloride	**<20.7**	ug/L	125	20.7	125		09/12/18 15:23	56-23-5	
Chlorobenzene	**<88.9**	ug/L	296	88.9	125		09/12/18 15:23	108-90-7	
Chloroethane	**<168**	ug/L	625	168	125		09/12/18 15:23	75-00-3	
Chloroform	**<159**	ug/L	625	159	125		09/12/18 15:23	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: W-34 **Lab ID: 40175439003** Collected: 09/06/18 11:25 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Chloromethane	**<274**	ug/L	912	274	125		09/12/18 15:23	74-87-3	
Dibromochloromethane	**<325**	ug/L	1080	325	125		09/12/18 15:23	124-48-1	
Dibromomethane	**<117**	ug/L	390	117	125		09/12/18 15:23	74-95-3	
Dichlorodifluoromethane	**<62.4**	ug/L	625	62.4	125		09/12/18 15:23	75-71-8	
Diisopropyl ether	**<236**	ug/L	787	236	125		09/12/18 15:23	108-20-3	
Ethylbenzene	**<27.3**	ug/L	125	27.3	125		09/12/18 15:23	100-41-4	
Hexachloro-1,3-butadiene	**<148**	ug/L	625	148	125		09/12/18 15:23	87-68-3	
Isopropylbenzene (Cumene)	**<49.1**	ug/L	625	49.1	125		09/12/18 15:23	98-82-8	
Methyl-tert-butyl ether	**<156**	ug/L	519	156	125		09/12/18 15:23	1634-04-4	
Methylene Chloride	**1080**	ug/L	625	72.6	125		09/12/18 15:23	75-09-2	
Naphthalene	**<147**	ug/L	625	147	125		09/12/18 15:23	91-20-3	
Styrene	**<58.2**	ug/L	194	58.2	125		09/12/18 15:23	100-42-5	
Tetrachloroethene	**<40.8**	ug/L	136	40.8	125		09/12/18 15:23	127-18-4	
Toluene	**82.3J**	ug/L	625	21.5	125		09/12/18 15:23	108-88-3	
Trichloroethene	**110J**	ug/L	125	31.9	125		09/12/18 15:23	79-01-6	
Trichlorofluoromethane	**<26.9**	ug/L	125	26.9	125		09/12/18 15:23	75-69-4	
Vinyl chloride	**66.6J**	ug/L	125	21.8	125		09/12/18 15:23	75-01-4	
Xylene (Total)	**<188**	ug/L	375	188	125		09/12/18 15:23	1330-20-7	
cis-1,2-Dichloroethene	**32400**	ug/L	125	33.9	125		09/12/18 15:23	156-59-2	
cis-1,3-Dichloropropene	**<454**	ug/L	1510	454	125		09/12/18 15:23	10061-01-5	
m&p-Xylene	**<58.2**	ug/L	250	58.2	125		09/12/18 15:23	179601-23-1	
n-Butylbenzene	**<88.5**	ug/L	295	88.5	125		09/12/18 15:23	104-51-8	
n-Propylbenzene	**<101**	ug/L	625	101	125		09/12/18 15:23	103-65-1	
o-Xylene	**<32.7**	ug/L	125	32.7	125		09/12/18 15:23	95-47-6	
p-Isopropyltoluene	**<100**	ug/L	333	100	125		09/12/18 15:23	99-87-6	
sec-Butylbenzene	**<106**	ug/L	625	106	125		09/12/18 15:23	135-98-8	
tert-Butylbenzene	**<38.0**	ug/L	127	38.0	125		09/12/18 15:23	98-06-6	
trans-1,2-Dichloroethene	**<136**	ug/L	454	136	125		09/12/18 15:23	156-60-5	
trans-1,3-Dichloropropene	**<546**	ug/L	1820	546	125		09/12/18 15:23	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		125		09/12/18 15:23	1868-53-7	
Toluene-d8 (S)	102	%	70-130		125		09/12/18 15:23	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		125		09/12/18 15:23	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**10.1J**	mg/L	15.0	5.0	5		09/10/18 16:36	14808-79-8	D3
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**194**	mg/L	23.5	7.0	1		09/13/18 09:36		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**75.0**	mg/L	50.4	15.1	60		09/18/18 21:11	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: SVE-4 **Lab ID: 40175439004** Collected: 09/06/18 12:50 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified								
Ethane	**306**	ug/L	5.6	0.58	1		09/11/18 09:08	74-84-0	
Ethene	**409**	ug/L	5.0	0.52	1		09/11/18 09:08	74-85-1	
Methane	**160**	ug/L	5.6	2.7	2		09/11/18 12:26	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**689000**	ug/L	23600	7070	200		09/21/18 10:05	7439-89-6	
Manganese, Dissolved	**9810**	ug/L	1000	226	200		09/21/18 10:05	7439-96-5	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<108**	ug/L	400	108	400		09/12/18 15:46	630-20-6	
1,1,1-Trichloroethane	**456**	ug/L	400	97.9	400		09/12/18 15:46	71-55-6	
1,1,2,2-Tetrachloroethane	**<110**	ug/L	400	110	400		09/12/18 15:46	79-34-5	
1,1,2-Trichloroethane	**<221**	ug/L	2000	221	400		09/12/18 15:46	79-00-5	
1,1-Dichloroethane	**995**	ug/L	400	109	400		09/12/18 15:46	75-34-3	
1,1-Dichloroethene	**255J**	ug/L	400	97.9	400		09/12/18 15:46	75-35-4	
1,1-Dichloropropene	**<216**	ug/L	720	216	400		09/12/18 15:46	563-58-6	
1,2,3-Trichlorobenzene	**<250**	ug/L	2000	250	400		09/12/18 15:46	87-61-6	
1,2,3-Trichloropropane	**<236**	ug/L	2000	236	400		09/12/18 15:46	96-18-4	
1,2,4-Trichlorobenzene	**<381**	ug/L	2000	381	400		09/12/18 15:46	120-82-1	
1,2,4-Trimethylbenzene	**<336**	ug/L	1120	336	400		09/12/18 15:46	95-63-6	
1,2-Dibromo-3-chloropropane	**<705**	ug/L	2350	705	400		09/12/18 15:46	96-12-8	
1,2-Dibromoethane (EDB)	**<332**	ug/L	1110	332	400		09/12/18 15:46	106-93-4	
1,2-Dichlorobenzene	**<282**	ug/L	940	282	400		09/12/18 15:46	95-50-1	
1,2-Dichloroethane	**<112**	ug/L	400	112	400		09/12/18 15:46	107-06-2	
1,2-Dichloropropane	**<113**	ug/L	400	113	400		09/12/18 15:46	78-87-5	
1,3,5-Trimethylbenzene	**<349**	ug/L	1160	349	400		09/12/18 15:46	108-67-8	
1,3-Dichlorobenzene	**<251**	ug/L	837	251	400		09/12/18 15:46	541-73-1	
1,3-Dichloropropane	**<330**	ug/L	1100	330	400		09/12/18 15:46	142-28-9	
1,4-Dichlorobenzene	**<377**	ug/L	1260	377	400		09/12/18 15:46	106-46-7	
2,2-Dichloropropane	**<906**	ug/L	3020	906	400		09/12/18 15:46	594-20-7	
2-Butanone (MEK)	**<1170**	ug/L	8000	1170	400		09/12/18 15:46	78-93-3	
2-Chlorotoluene	**<370**	ug/L	2000	370	400		09/12/18 15:46	95-49-8	
2-Propanol	**<11600**	ug/L	100000	11600	400		09/12/18 15:46	67-63-0	
4-Chlorotoluene	**<303**	ug/L	1010	303	400		09/12/18 15:46	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<613**	ug/L	2040	613	400		09/12/18 15:46	108-10-1	
Acetone	**<1100**	ug/L	8000	1100	400		09/12/18 15:46	67-64-1	
Benzene	**<98.6**	ug/L	400	98.6	400		09/12/18 15:46	71-43-2	
Bromobenzene	**<96.4**	ug/L	400	96.4	400		09/12/18 15:46	108-86-1	
Bromochloromethane	**<145**	ug/L	2000	145	400		09/12/18 15:46	74-97-5	
Bromodichloromethane	**<145**	ug/L	485	145	400		09/12/18 15:46	75-27-4	
Bromoform	**<1590**	ug/L	5300	1590	400		09/12/18 15:46	75-25-2	
Bromomethane	**<389**	ug/L	2000	389	400		09/12/18 15:46	74-83-9	
Carbon tetrachloride	**<66.3**	ug/L	400	66.3	400		09/12/18 15:46	56-23-5	
Chlorobenzene	**<284**	ug/L	948	284	400		09/12/18 15:46	108-90-7	
Chloroethane	**<537**	ug/L	2000	537	400		09/12/18 15:46	75-00-3	
Chloroform	**<510**	ug/L	2000	510	400		09/12/18 15:46	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: SVE-4 **Lab ID: 40175439004** Collected: 09/06/18 12:50 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Chloromethane	**<876**	ug/L	2920	876	400		09/12/18 15:46	74-87-3	
Dibromochloromethane	**<1040**	ug/L	3470	1040	400		09/12/18 15:46	124-48-1	
Dibromomethane	**<375**	ug/L	1250	375	400		09/12/18 15:46	74-95-3	
Dichlorodifluoromethane	**<200**	ug/L	2000	200	400		09/12/18 15:46	75-71-8	
Diisopropyl ether	**<755**	ug/L	2520	755	400		09/12/18 15:46	108-20-3	
Ethylbenzene	**<87.3**	ug/L	400	87.3	400		09/12/18 15:46	100-41-4	
Hexachloro-1,3-butadiene	**<473**	ug/L	2000	473	400		09/12/18 15:46	87-68-3	
Isopropylbenzene (Cumene)	**<157**	ug/L	2000	157	400		09/12/18 15:46	98-82-8	
Methyl-tert-butyl ether	**<498**	ug/L	1660	498	400		09/12/18 15:46	1634-04-4	
Methylene Chloride	**1620J**	ug/L	2000	232	400		09/12/18 15:46	75-09-2	B
Naphthalene	**<470**	ug/L	2000	470	400		09/12/18 15:46	91-20-3	
Styrene	**<186**	ug/L	621	186	400		09/12/18 15:46	100-42-5	
Tetrachloroethene	**518**	ug/L	435	131	400		09/12/18 15:46	127-18-4	
Toluene	**69.2J**	ug/L	2000	68.8	400		09/12/18 15:46	108-88-3	
Trichloroethene	**339J**	ug/L	400	102	400		09/12/18 15:46	79-01-6	
Trichlorofluoromethane	**<86.0**	ug/L	400	86.0	400		09/12/18 15:46	75-69-4	
Vinyl chloride	**259J**	ug/L	400	69.9	400		09/12/18 15:46	75-01-4	
Xylene (Total)	**<600**	ug/L	1200	600	400		09/12/18 15:46	1330-20-7	
cis-1,2-Dichloroethene	**21500**	ug/L	400	108	400		09/12/18 15:46	156-59-2	
cis-1,3-Dichloropropene	**<1450**	ug/L	4840	1450	400		09/12/18 15:46	10061-01-5	
m&p-Xylene	**<186**	ug/L	800	186	400		09/12/18 15:46	179601-23-1	
n-Butylbenzene	**<283**	ug/L	944	283	400		09/12/18 15:46	104-51-8	
n-Propylbenzene	**<324**	ug/L	2000	324	400		09/12/18 15:46	103-65-1	
o-Xylene	**<105**	ug/L	400	105	400		09/12/18 15:46	95-47-6	
p-Isopropyltoluene	**<320**	ug/L	1070	320	400		09/12/18 15:46	99-87-6	
sec-Butylbenzene	**<339**	ug/L	2000	339	400		09/12/18 15:46	135-98-8	
tert-Butylbenzene	**<122**	ug/L	405	122	400		09/12/18 15:46	98-06-6	
trans-1,2-Dichloroethene	**<436**	ug/L	1450	436	400		09/12/18 15:46	156-60-5	
trans-1,3-Dichloropropene	**<1750**	ug/L	5830	1750	400		09/12/18 15:46	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	102	%	70-130		400		09/12/18 15:46	1868-53-7	
Toluene-d8 (S)	104	%	70-130		400		09/12/18 15:46	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		400		09/12/18 15:46	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**<5.0**	mg/L	15.0	5.0	5		09/10/18 16:50	14808-79-8	D3
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**355**	mg/L	23.5	7.0	1		09/13/18 09:37		
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**2570**	mg/L	840	252	1000		09/19/18 09:38	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: TRIP BLANK **Lab ID: 40175439005** Collected: 09/06/18 00:00 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/12/18 17:18	630-20-6	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/12/18 17:18	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/12/18 17:18	79-34-5	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/12/18 17:18	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/12/18 17:18	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/12/18 17:18	75-35-4	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/12/18 17:18	563-58-6	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		09/12/18 17:18	87-61-6	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/12/18 17:18	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/12/18 17:18	120-82-1	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/12/18 17:18	95-63-6	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/12/18 17:18	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/12/18 17:18	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/12/18 17:18	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/12/18 17:18	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/12/18 17:18	78-87-5	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/12/18 17:18	108-67-8	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/12/18 17:18	541-73-1	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/12/18 17:18	142-28-9	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/12/18 17:18	106-46-7	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/12/18 17:18	594-20-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		09/12/18 17:18	78-93-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/12/18 17:18	95-49-8	
2-Propanol	**<28.9**	ug/L	250	28.9	1		09/12/18 17:18	67-63-0	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/12/18 17:18	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<1.5**	ug/L	5.1	1.5	1		09/12/18 17:18	108-10-1	
Acetone	**<2.7**	ug/L	20.0	2.7	1		09/12/18 17:18	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/12/18 17:18	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/12/18 17:18	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/12/18 17:18	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/12/18 17:18	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/12/18 17:18	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/12/18 17:18	74-83-9	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		09/12/18 17:18	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/12/18 17:18	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/12/18 17:18	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/12/18 17:18	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/12/18 17:18	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/12/18 17:18	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/12/18 17:18	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/12/18 17:18	75-71-8	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/12/18 17:18	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		09/12/18 17:18	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		09/12/18 17:18	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		09/12/18 17:18	98-82-8	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/12/18 17:18	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40175439

Sample: TRIP BLANK **Lab ID: 40175439005** Collected: 09/06/18 00:00 Received: 09/07/18 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/12/18 17:18	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/12/18 17:18	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		09/12/18 17:18	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/12/18 17:18	127-18-4	
Toluene	**<0.17**	ug/L	5.0	0.17	1		09/12/18 17:18	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/12/18 17:18	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/12/18 17:18	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/12/18 17:18	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		09/12/18 17:18	1330-20-7	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/12/18 17:18	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/12/18 17:18	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/12/18 17:18	179601-23-1	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/12/18 17:18	104-51-8	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/12/18 17:18	103-65-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/12/18 17:18	95-47-6	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/12/18 17:18	99-87-6	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/12/18 17:18	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/12/18 17:18	98-06-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		09/12/18 17:18	156-60-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/12/18 17:18	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	95	%	70-130		1		09/12/18 17:18	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/12/18 17:18	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		09/12/18 17:18	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 299703 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 8015B Modified Analysis Description: Methane, Ethane, Ethene GCV
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1750640 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<0.58	5.6	09/11/18 07:03	
Ethene	ug/L	<0.52	5.0	09/11/18 07:03	
Methane	ug/L	<1.4	2.8	09/11/18 07:03	

LABORATORY CONTROL SAMPLE & LCSD: 1750641 1750642

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	53.1	53.3	99	100	80-120	0	20	
Ethene	ug/L	50	49.2	49.4	98	99	81-120	0	20	
Methane	ug/L	28.6	30.0	30.0	105	105	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750643 1750644

Parameter	Units	40175274004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<0.58	53.6	53.6	51.2	52.1	96	97	80-120	2	20	
Ethene	ug/L	1.4J	50	50	49.6	50.4	96	98	81-122	2	20	
Methane	ug/L	39.1	28.6	28.6	104	101	227	215	44-167	3	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 300810 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1756645 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<35.4	118	09/20/18 18:13	
Manganese, Dissolved	ug/L	<1.1	5.0	09/20/18 18:13	

LABORATORY CONTROL SAMPLE: 1756646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	4930	99	80-120	
Manganese, Dissolved	ug/L	500	537	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1756647 1756648

Parameter	Units	40175480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	856	5000	5000	6020	6010	103	103	75-125	0	20	
Manganese, Dissolved	ug/L	870	500	500	1390	1390	104	104	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 299699 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1750632 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/12/18 08:03	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/12/18 08:03	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/12/18 08:03	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/12/18 08:03	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/12/18 08:03	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/12/18 08:03	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/12/18 08:03	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	09/12/18 08:03	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/12/18 08:03	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/12/18 08:03	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/12/18 08:03	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/12/18 08:03	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/12/18 08:03	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/12/18 08:03	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/12/18 08:03	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/12/18 08:03	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/12/18 08:03	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/12/18 08:03	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/12/18 08:03	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/12/18 08:03	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/12/18 08:03	
2-Butanone (MEK)	ug/L	<2.9	20.0	09/12/18 08:03	
2-Chlorotoluene	ug/L	<0.93	5.0	09/12/18 08:03	
2-Propanol	ug/L	<28.9	250	09/12/18 08:03	
4-Chlorotoluene	ug/L	<0.76	2.5	09/12/18 08:03	
4-Methyl-2-pentanone (MIBK)	ug/L	<1.5	5.1	09/12/18 08:03	
Acetone	ug/L	<2.7	20.0	09/12/18 08:03	
Benzene	ug/L	<0.25	1.0	09/12/18 08:03	
Bromobenzene	ug/L	<0.24	1.0	09/12/18 08:03	
Bromochloromethane	ug/L	<0.36	5.0	09/12/18 08:03	
Bromodichloromethane	ug/L	<0.36	1.2	09/12/18 08:03	
Bromoform	ug/L	<4.0	13.2	09/12/18 08:03	
Bromomethane	ug/L	<0.97	5.0	09/12/18 08:03	
Carbon tetrachloride	ug/L	<0.17	1.0	09/12/18 08:03	
Chlorobenzene	ug/L	<0.71	2.4	09/12/18 08:03	
Chloroethane	ug/L	<1.3	5.0	09/12/18 08:03	
Chloroform	ug/L	<1.3	5.0	09/12/18 08:03	
Chloromethane	ug/L	<2.2	7.3	09/12/18 08:03	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/12/18 08:03	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/12/18 08:03	
Dibromochloromethane	ug/L	<2.6	8.7	09/12/18 08:03	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

METHOD BLANK: 1750632 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	<0.94	3.1	09/12/18 08:03	
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/12/18 08:03	
Diisopropyl ether	ug/L	<1.9	6.3	09/12/18 08:03	
Ethylbenzene	ug/L	<0.22	1.0	09/12/18 08:03	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	09/12/18 08:03	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	09/12/18 08:03	
m&p-Xylene	ug/L	<0.47	2.0	09/12/18 08:03	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/12/18 08:03	
Methylene Chloride	ug/L	0.60J	5.0	09/12/18 08:03	
n-Butylbenzene	ug/L	<0.71	2.4	09/12/18 08:03	
n-Propylbenzene	ug/L	<0.81	5.0	09/12/18 08:03	
Naphthalene	ug/L	<1.2	5.0	09/12/18 08:03	
o-Xylene	ug/L	<0.26	1.0	09/12/18 08:03	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/12/18 08:03	
sec-Butylbenzene	ug/L	<0.85	5.0	09/12/18 08:03	
Styrene	ug/L	<0.47	1.6	09/12/18 08:03	
tert-Butylbenzene	ug/L	<0.30	1.0	09/12/18 08:03	
Tetrachloroethene	ug/L	<0.33	1.1	09/12/18 08:03	
Toluene	ug/L	<0.17	5.0	09/12/18 08:03	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	09/12/18 08:03	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/12/18 08:03	
Trichloroethene	ug/L	<0.26	1.0	09/12/18 08:03	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/12/18 08:03	
Vinyl chloride	ug/L	<0.17	1.0	09/12/18 08:03	
Xylene (Total)	ug/L	<1.5	3.0	09/12/18 08:03	
4-Bromofluorobenzene (S)	%	93	70-130	09/12/18 08:03	
Dibromofluoromethane (S)	%	103	70-130	09/12/18 08:03	
Toluene-d8 (S)	%	102	70-130	09/12/18 08:03	

LABORATORY CONTROL SAMPLE: 1750633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.9	106	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	47.5	95	67-130	
1,1,2-Trichloroethane	ug/L	50	53.0	106	70-130	
1,1-Dichloroethane	ug/L	50	47.8	96	70-134	
1,1-Dichloroethene	ug/L	50	57.7	115	75-132	
1,2,4-Trichlorobenzene	ug/L	50	49.5	99	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.7	93	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	50.1	100	70-130	
1,2-Dichlorobenzene	ug/L	50	52.3	105	70-130	
1,2-Dichloroethane	ug/L	50	49.2	98	73-134	
1,2-Dichloropropane	ug/L	50	50.6	101	79-128	
1,3-Dichlorobenzene	ug/L	50	53.0	106	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

LABORATORY CONTROL SAMPLE: 1750633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	54.4	109	70-130	
Benzene	ug/L	50	48.4	97	69-137	
Bromodichloromethane	ug/L	50	49.2	98	70-130	
Bromoform	ug/L	50	51.3	103	64-133	
Bromomethane	ug/L	50	29.1	58	29-123	
Carbon tetrachloride	ug/L	50	53.1	106	73-142	
Chlorobenzene	ug/L	50	55.1	110	70-130	
Chloroethane	ug/L	50	50.9	102	59-133	
Chloroform	ug/L	50	49.1	98	80-129	
Chloromethane	ug/L	50	34.2	68	27-125	
cis-1,2-Dichloroethene	ug/L	50	44.0	88	70-134	
cis-1,3-Dichloropropene	ug/L	50	49.8	100	70-130	
Dibromochloromethane	ug/L	50	55.1	110	70-130	
Dichlorodifluoromethane	ug/L	50	34.8	70	12-127	
Ethylbenzene	ug/L	50	54.9	110	86-127	
Isopropylbenzene (Cumene)	ug/L	50	56.1	112	70-130	
m&p-Xylene	ug/L	100	116	116	70-131	
Methyl-tert-butyl ether	ug/L	50	46.0	92	65-136	
Methylene Chloride	ug/L	50	54.0	108	72-133	
o-Xylene	ug/L	50	57.1	114	70-130	
Styrene	ug/L	50	57.9	116	70-130	
Tetrachloroethene	ug/L	50	58.0	116	70-130	
Toluene	ug/L	50	56.2	112	84-124	
trans-1,2-Dichloroethene	ug/L	50	48.5	97	70-133	
trans-1,3-Dichloropropene	ug/L	50	56.0	112	67-130	
Trichloroethene	ug/L	50	51.3	103	70-130	
Trichlorofluoromethane	ug/L	50	57.8	116	69-147	
Vinyl chloride	ug/L	50	49.1	98	48-134	
Xylene (Total)	ug/L	150	174	116	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			107	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750780 1750781

Parameter	Units	40175435002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	53.8	51.0	108	102	70-136	5	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	47.7	45.9	95	92	67-133	4	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.1	51.6	102	103	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	50.0	50.1	100	100	70-139	0	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	59.1	55.7	118	111	72-137	6	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	51.7	50.8	103	102	68-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	45.2	45.3	90	91	60-130	0	21	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750780 1750781

Parameter	Units	40175435002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	49.9	49.9	100	100	70-130	0	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	52.8	52.6	106	105	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	47.9	46.4	96	93	71-137	3	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	50.8	50.3	102	101	78-130	1	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	52.7	52.0	105	104	70-130	1	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	54.8	53.8	110	108	70-130	2	20	
Benzene	ug/L	<0.25	50	50	48.5	47.2	97	94	66-143	3	20	
Bromodichloromethane	ug/L	<0.36	50	50	49.0	47.7	98	95	70-130	3	20	
Bromoform	ug/L	<4.0	50	50	49.6	49.6	99	99	64-134	0	20	
Bromomethane	ug/L	<0.97	50	50	35.9	36.1	72	72	29-136	1	25	
Carbon tetrachloride	ug/L	<0.17	50	50	53.9	53.0	108	106	73-142	2	20	
Chlorobenzene	ug/L	<0.71	50	50	54.3	55.6	109	111	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	57.9	51.6	116	103	58-138	12	20	
Chloroform	ug/L	<1.3	50	50	48.6	46.4	97	93	80-131	5	20	
Chloromethane	ug/L	<2.2	50	50	39.8	38.7	80	77	24-125	3	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	44.7	44.7	89	89	68-137	0	22	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	49.1	48.9	98	98	70-130	0	20	
Dibromochloromethane	ug/L	<2.6	50	50	53.6	53.7	107	107	70-131	0	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	50.8	48.1	102	96	10-127	6	20	
Ethylbenzene	ug/L	<0.22	50	50	54.5	55.1	109	110	81-136	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	56.0	55.9	112	112	70-132	0	20	
m&p-Xylene	ug/L	<0.47	100	100	115	116	115	116	70-135	1	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.4	44.2	93	88	58-142	5	23	
Methylene Chloride	ug/L	<0.58	50	50	54.9	51.9	109	103	69-137	6	20	
o-Xylene	ug/L	<0.26	50	50	57.1	56.5	114	113	70-132	1	20	
Styrene	ug/L	<0.47	50	50	56.7	56.9	113	114	70-130	0	20	
Tetrachloroethene	ug/L	<0.33	50	50	57.5	57.9	115	116	70-132	1	20	
Toluene	ug/L	<0.17	50	50	55.3	56.4	111	113	81-130	2	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	51.5	48.0	103	96	70-136	7	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	55.5	56.7	111	113	67-130	2	20	
Trichloroethene	ug/L	<0.26	50	50	51.5	50.9	103	102	70-131	1	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	61.5	58.5	123	117	66-150	5	20	
Vinyl chloride	ug/L	<0.17	50	50	55.7	51.3	111	103	46-134	8	20	
Xylene (Total)	ug/L	<1.5	150	150	172	172	115	115	70-134	0	20	
4-Bromofluorobenzene (S)	%						97	97	70-130			
Dibromofluoromethane (S)	%						99	97	70-130			
Toluene-d8 (S)	%						106	109	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 299858
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 40175439005

METHOD BLANK: 1751228
Matrix: Water
Associated Lab Samples: 40175439005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/12/18 08:20	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/12/18 08:20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/12/18 08:20	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/12/18 08:20	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/12/18 08:20	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/12/18 08:20	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/12/18 08:20	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	09/12/18 08:20	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/12/18 08:20	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/12/18 08:20	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/12/18 08:20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/12/18 08:20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/12/18 08:20	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/12/18 08:20	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/12/18 08:20	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/12/18 08:20	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/12/18 08:20	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/12/18 08:20	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/12/18 08:20	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/12/18 08:20	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/12/18 08:20	
2-Butanone (MEK)	ug/L	<2.9	20.0	09/12/18 08:20	
2-Chlorotoluene	ug/L	<0.93	5.0	09/12/18 08:20	
2-Propanol	ug/L	<28.9	250	09/12/18 08:20	
4-Chlorotoluene	ug/L	<0.76	2.5	09/12/18 08:20	
4-Methyl-2-pentanone (MIBK)	ug/L	<1.5	5.1	09/12/18 08:20	
Acetone	ug/L	<2.7	20.0	09/12/18 08:20	
Benzene	ug/L	<0.25	1.0	09/12/18 08:20	
Bromobenzene	ug/L	<0.24	1.0	09/12/18 08:20	
Bromochloromethane	ug/L	<0.36	5.0	09/12/18 08:20	
Bromodichloromethane	ug/L	<0.36	1.2	09/12/18 08:20	
Bromoform	ug/L	<4.0	13.2	09/12/18 08:20	
Bromomethane	ug/L	<0.97	5.0	09/12/18 08:20	
Carbon tetrachloride	ug/L	<0.17	1.0	09/12/18 08:20	
Chlorobenzene	ug/L	<0.71	2.4	09/12/18 08:20	
Chloroethane	ug/L	<1.3	5.0	09/12/18 08:20	
Chloroform	ug/L	<1.3	5.0	09/12/18 08:20	
Chloromethane	ug/L	<2.2	7.3	09/12/18 08:20	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/12/18 08:20	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/12/18 08:20	
Dibromochloromethane	ug/L	<2.6	8.7	09/12/18 08:20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

METHOD BLANK: 1751228 Matrix: Water
Associated Lab Samples: 40175439005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	<0.94	3.1	09/12/18 08:20	
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/12/18 08:20	
Diisopropyl ether	ug/L	<1.9	6.3	09/12/18 08:20	
Ethylbenzene	ug/L	<0.22	1.0	09/12/18 08:20	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	09/12/18 08:20	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	09/12/18 08:20	
m&p-Xylene	ug/L	<0.47	2.0	09/12/18 08:20	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/12/18 08:20	
Methylene Chloride	ug/L	<0.58	5.0	09/12/18 08:20	
n-Butylbenzene	ug/L	<0.71	2.4	09/12/18 08:20	
n-Propylbenzene	ug/L	<0.81	5.0	09/12/18 08:20	
Naphthalene	ug/L	<1.2	5.0	09/12/18 08:20	
o-Xylene	ug/L	<0.26	1.0	09/12/18 08:20	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/12/18 08:20	
sec-Butylbenzene	ug/L	<0.85	5.0	09/12/18 08:20	
Styrene	ug/L	<0.47	1.6	09/12/18 08:20	
tert-Butylbenzene	ug/L	<0.30	1.0	09/12/18 08:20	
Tetrachloroethene	ug/L	<0.33	1.1	09/12/18 08:20	
Toluene	ug/L	<0.17	5.0	09/12/18 08:20	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	09/12/18 08:20	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/12/18 08:20	
Trichloroethene	ug/L	<0.26	1.0	09/12/18 08:20	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/12/18 08:20	
Vinyl chloride	ug/L	<0.17	1.0	09/12/18 08:20	
Xylene (Total)	ug/L	<1.5	3.0	09/12/18 08:20	
4-Bromofluorobenzene (S)	%	101	70-130	09/12/18 08:20	
Dibromofluoromethane (S)	%	93	70-130	09/12/18 08:20	
Toluene-d8 (S)	%	100	70-130	09/12/18 08:20	

LABORATORY CONTROL SAMPLE: 1751229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	59.2	118	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	67-130	
1,1,2-Trichloroethane	ug/L	50	50.1	100	70-130	
1,1-Dichloroethane	ug/L	50	54.3	109	70-134	
1,1-Dichloroethene	ug/L	50	54.0	108	75-132	
1,2,4-Trichlorobenzene	ug/L	50	50.7	101	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	54.8	110	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	70-130	
1,2-Dichlorobenzene	ug/L	50	49.0	98	70-130	
1,2-Dichloroethane	ug/L	50	55.8	112	73-134	
1,2-Dichloropropane	ug/L	50	45.8	92	79-128	
1,3-Dichlorobenzene	ug/L	50	48.2	96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

LABORATORY CONTROL SAMPLE: 1751229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	48.5	97	70-130	
Benzene	ug/L	50	47.8	96	69-137	
Bromodichloromethane	ug/L	50	57.9	116	70-130	
Bromoform	ug/L	50	63.9	128	64-133	
Bromomethane	ug/L	50	34.1	68	29-123	
Carbon tetrachloride	ug/L	50	59.9	120	73-142	
Chlorobenzene	ug/L	50	51.4	103	70-130	
Chloroethane	ug/L	50	48.9	98	59-133	
Chloroform	ug/L	50	57.0	114	80-129	
Chloromethane	ug/L	50	35.0	70	27-125	
cis-1,2-Dichloroethene	ug/L	50	53.1	106	70-134	
cis-1,3-Dichloropropene	ug/L	50	50.9	102	70-130	
Dibromochloromethane	ug/L	50	56.4	113	70-130	
Dichlorodifluoromethane	ug/L	50	40.3	81	12-127	
Ethylbenzene	ug/L	50	56.5	113	86-127	
Isopropylbenzene (Cumene)	ug/L	50	58.4	117	70-130	
m&p-Xylene	ug/L	100	111	111	70-131	
Methyl-tert-butyl ether	ug/L	50	56.7	113	65-136	
Methylene Chloride	ug/L	50	50.1	100	72-133	
o-Xylene	ug/L	50	55.2	110	70-130	
Styrene	ug/L	50	56.6	113	70-130	
Tetrachloroethene	ug/L	50	54.3	109	70-130	
Toluene	ug/L	50	53.0	106	84-124	
trans-1,2-Dichloroethene	ug/L	50	52.6	105	70-133	
trans-1,3-Dichloropropene	ug/L	50	55.4	111	67-130	
Trichloroethene	ug/L	50	55.1	110	70-130	
Trichlorofluoromethane	ug/L	50	63.7	127	69-147	
Vinyl chloride	ug/L	50	46.6	93	48-134	
Xylene (Total)	ug/L	150	167	111	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Dibromofluoromethane (S)	%			94	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 299609 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1750204 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<1.0	3.0	09/10/18 12:26	

LABORATORY CONTROL SAMPLE: 1750205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750206 1750207

Parameter	Units	40175362001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	18.5	20	20	39.5	38.4	105	100	90-110	3	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750208 1750209

Parameter	Units	40175459003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	50.0	100	100	155	154	105	104	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 299994 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1751785 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	09/13/18 09:25	

LABORATORY CONTROL SAMPLE: 1751786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	93.4	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1751787 1751788

Parameter	Units	40175304005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	326	200	200	537	515	105	94	90-110	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1751789 1751790

Parameter	Units	40175459019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	255	500	500	731	753	95	100	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40175439

QC Batch: 300416 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

METHOD BLANK: 1754558 Matrix: Water
Associated Lab Samples: 40175439001, 40175439002, 40175439003, 40175439004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.25	0.84	09/18/18 16:40	

LABORATORY CONTROL SAMPLE: 1754559

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	2.5	2.5	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1754560 1754561

Parameter	Units	40175274004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.79J	1	1	1.9	1.9	111	110	80-120	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 55929.005 WRR
Pace Project No.: 40175439

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 55929.005 WRR
Pace Project No.: 40175439

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40175439001	**W-32**	EPA 8015B Modified	299703		
40175439002	**W-33**	EPA 8015B Modified	299703		
40175439003	**W-34**	EPA 8015B Modified	299703		
40175439004	**SVE-4**	EPA 8015B Modified	299703		
40175439001	**W-32**	EPA 6010	300810		
40175439002	**W-33**	EPA 6010	300810		
40175439003	**W-34**	EPA 6010	300810		
40175439004	**SVE-4**	EPA 6010	300810		
40175439001	**W-32**	EPA 8260	299699		
40175439002	**W-33**	EPA 8260	299699		
40175439003	**W-34**	EPA 8260	299699		
40175439004	**SVE-4**	EPA 8260	299699		
40175439005	**TRIP BLANK**	EPA 8260	299858		
40175439001	**W-32**	EPA 300.0	299609		
40175439002	**W-33**	EPA 300.0	299609		
40175439003	**W-34**	EPA 300.0	299609		
40175439004	**SVE-4**	EPA 300.0	299609		
40175439001	**W-32**	EPA 310.2	299994		
40175439002	**W-33**	EPA 310.2	299994		
40175439003	**W-34**	EPA 310.2	299994		
40175439004	**SVE-4**	EPA 310.2	299994		
40175439001	**W-32**	SM 5310C	300416		
40175439002	**W-33**	SM 5310C	300416		
40175439003	**W-34**	SM 5310C	300416		
40175439004	**SVE-4**	SM 5310C	300416		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40175439

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Gannett Fleming
Branch/Location:	MSN
Project Contact:	Tony Miller
Phone:	608-836-1500
Project Number:	55924.005
Project Name:	WRR
Project State:	WI
Sampled By (Print):	Marcus Mussey
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	awmiller@gfnet.com
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX
001	W-32	9/6/18	1420	GW
002	W-33	"	1515	"
003	W-34	"	1125	"
004	~~W~~ SVE-4	"	1250	"
005	Trip Blank			

Analyses Requested	FILTERED? (YES/NO)	PRESERVATION (CODE)*	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
VOC 8260	N	B			
Methane 8015B	N	B			
Sulfate+Alky	N	A			
TOC	N	C			
Metals	Y	D			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/6/18, 1730	FedEx	
FedEx	9-7-18 0935	Susan Uhle	9-7-18 0935

PACE Project No.: 40175439
Receipt Temp = RO °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Container Order #398563

40175439

Addresses

Order By :		Ship To :		Return To:	
Company	Gannett Fleming Inc.	Company	Gannett Fleming Inc.	Company	Pace Analytical Green Bay
Contact	Mussey, Marcus	Contact	Mussey, Marcus	Contact	Basten, Brian
Email	mmussey@gfnet.com	Email	mmussey@gfnet.com	Email	brian.basten@pacelabs.com
Address	8025 Excelsior Drive	Address	8025 Excelsior Drive	Address	1241 Bellevue Street
Address 2		Address 2		Address 2	Suite 9
City	Madison	City	Madison	City	Green Bay
State	WI Zip 53717	State	WI Zip 53717	State	WI Zip 54302
Phone	608-836-1500	Phone	608-836-1500	Phone	(920)469-2436

Info

Project Name WRR (55929.005) **Due Date** 09/05/2018 **Profile** _____ **Quote** _____

Project Manager Milewsky, Dan **Return** _____ **Carrier** Most Economical **Location** WI

Trip Blanks

[X] Include Trip Blanks

Bottle Labels

[X] Blank
[ ] Pre-Printed No Sample IDs
[ ] Pre-Printed With Sample IDs

Bottles

[ ] Boxed Cases
[ ] Individually Wrapped
[ ] Grouped By Sample

Return Shipping Labels

[ ] No Shipper Number
[ ] With Shipper Number

COC Options

[X] Number of Blanks 2
[ ] Pre-Printed

Misc

[X] Sampling Instructions
[X] Custody Seal
[ ] Temp. Blanks
[X] Coolers
[ ] Syringes
[ ] Extra Bubble Wrap
[ ] Short Hold/Rush Stickers
[ ] DI Water Liter(s)
[ ] USDA Regulated Soils

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
4	WT	VOC by 8260	(3) 40 mL clear glass vials, HCL	12	0	B-8-206-01VB	
4	WT	Methane by 8015B	3-40mL glass vial HCl	12	0	B-8-206-01VB	
4	WT	Sulfate & Alkalinity	250ml poly unpreserved	4	0	M-8-192-03BB	
4	WT	TOC	125ml Amber Glass H2SO4	4	0	D-8-123-05DB	
4	WT	Metals	250mL plastic w/HNO3	4	0	M-8-192-03BB	Dis Fe and Mn
1	WT	Trip BLANK	2-40mL HCL w/custody seal	2	0	B-8-087-01VB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date :	09/04/2018
Prepared By:	Mai Yer Her
Verified By:	

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Garneth Heming Project # 40175439

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☐N/A

Lab Lot# of pH paper: 10US0781 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: SKW Date/ Time:

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001			1								1		1					6													X		2.5 / 5 / 10
002			1								1		1					6													X		2.5 / 5 / 10
003			1								1		1					6													X		2.5 / 5 / 10
004			1								1		1					6													X		2.5 / 5 / 10
005																		2															2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Gannett Fleming Project #: WO#: 40175439

Courier: ☐ CS Logistics ☑ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☐ Client ☐ Pace Other: _____

Tracking #: 782565245390

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 9-7-18 SW
Initials: _____

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. Incomplete Mail + Invoice Info 9-7-18 SW
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☑Yes ☐No ☐N/A	12.
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 407		

If checked, see attached form for additional comments ☐

Client Notification/ Resolution:
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: RAR for BM **Date:** 9/7/18

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

June 11, 2018

The analytical results and QA/QC data included with this report were reviewed by AWM on 06/20/18.

Tony Miller
Gannett Fleming
8025 Excelsior Drive
Madison, WI 53717

RE: Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Dear Tony Miller:
Enclosed are the analytical results for sample(s) received by the laboratory on June 07, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Chelsea Payne, Gannett Fleming Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40170432001	**SVE-4**	Water	06/05/18 08:05	06/07/18 09:20
40170432002	**GP-86**	Water	06/05/18 09:50	06/07/18 09:20
40170432003	**GP-87S**	Water	06/05/18 12:30	06/07/18 09:20
40170432004	**GP-87D**	Water	06/05/18 12:45	06/07/18 09:20
40170432005	**GP-88S**	Water	06/06/18 10:30	06/07/18 09:20
40170432006	**GP-88D**	Water	06/06/18 09:25	06/07/18 09:20
40170432007	**GP-89**	Water	06/06/18 08:30	06/07/18 09:20
40170432008	**GP-90S**	Water	06/06/18 15:15	06/07/18 09:20
40170432009	**GP-90D**	Water	06/06/18 14:45	06/07/18 09:20
40170432010	**TRIP BLANK**	Water	06/06/18 00:00	06/07/18 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40170432001	**SVE-4**	EPA 8260	MDS	69
40170432002	**GP-86**	EPA 8260	MDS	69
40170432003	**GP-87S**	EPA 8260	MDS	69
40170432004	**GP-87D**	EPA 8260	MDS	69
40170432005	**GP-88S**	EPA 8260	MDS	69
40170432006	**GP-88D**	EPA 8260	MDS	69
40170432007	**GP-89**	EPA 8260	MDS	69
40170432008	**GP-90S**	EPA 8260	MDS	69
40170432009	**GP-90D**	EPA 8260	MDS	69
40170432010	**TRIP BLANK**	EPA 8260	MDS	69

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SUMMARY OF DETECTION

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40170432001	**SVE-4**					
EPA 8260	1,1,1-Trichloroethane	29800	ug/L	625	06/08/18 19:55	
EPA 8260	1,1,2-Trichloroethane	8180	ug/L	625	06/08/18 19:55	
EPA 8260	1,1-Dichloroethane	2270	ug/L	625	06/08/18 19:55	
EPA 8260	1,1-Dichloroethene	2160	ug/L	625	06/08/18 19:55	
EPA 8260	1,2-Dichloroethane	338J	ug/L	625	06/08/18 19:55	
EPA 8260	1,2-Dichloropropane	445J	ug/L	625	06/08/18 19:55	
EPA 8260	4-Methyl-2-pentanone (MIBK)	4170	ug/L	3120	06/08/18 19:55	
EPA 8260	Acetone	6880J	ug/L	12500	06/08/18 19:55	
EPA 8260	Methylene Chloride	4680	ug/L	625	06/08/18 19:55	
EPA 8260	Tetrachloroethene	15600	ug/L	625	06/08/18 19:55	
EPA 8260	Toluene	515J	ug/L	625	06/08/18 19:55	
EPA 8260	Trichloroethene	13200	ug/L	625	06/08/18 19:55	
EPA 8260	Vinyl chloride	152J	ug/L	625	06/08/18 19:55	
EPA 8260	cis-1,2-Dichloroethene	82300	ug/L	625	06/08/18 19:55	
40170432002	**GP-86**					
EPA 8260	1,1,1-Trichloroethane	1090	ug/L	10.0	06/08/18 19:33	
EPA 8260	1,1,2-Trichloroethane	35.1	ug/L	10.0	06/08/18 19:33	
EPA 8260	1,1-Dichloroethane	36.0	ug/L	10.0	06/08/18 19:33	
EPA 8260	1,1-Dichloroethene	30.0	ug/L	10.0	06/08/18 19:33	
EPA 8260	Tetrachloroethene	368	ug/L	10.0	06/08/18 19:33	
EPA 8260	Trichloroethene	1340	ug/L	10.0	06/08/18 19:33	
EPA 8260	cis-1,2-Dichloroethene	305	ug/L	10.0	06/08/18 19:33	
EPA 8260	trans-1,2-Dichloroethene	15.3	ug/L	10.0	06/08/18 19:33	
40170432003	**GP-87S**					
EPA 8260	1,1,1-Trichloroethane	55.2	ug/L	1.0	06/08/18 15:56	
EPA 8260	1,1,2-Trichloroethane	8.4	ug/L	1.0	06/08/18 15:56	
EPA 8260	1,1-Dichloroethane	2.4	ug/L	1.0	06/08/18 15:56	
EPA 8260	1,1-Dichloroethene	1.1	ug/L	1.0	06/08/18 15:56	
EPA 8260	Acetone	5.1J	ug/L	20.0	06/08/18 15:56	
EPA 8260	Tetrachloroethene	10.2	ug/L	1.0	06/08/18 15:56	
EPA 8260	Trichloroethene	39.1	ug/L	1.0	06/08/18 15:56	
EPA 8260	cis-1,2-Dichloroethene	1.9	ug/L	1.0	06/08/18 15:56	
40170432004	**GP-87D**					
EPA 8260	1,1,1-Trichloroethane	1.2	ug/L	1.0	06/08/18 16:18	
EPA 8260	Trichloroethene	0.94J	ug/L	1.0	06/08/18 16:18	
40170432005	**GP-88S**					
EPA 8260	1,1,1-Trichloroethane	72.1	ug/L	1.0	06/08/18 16:39	
EPA 8260	1,1,2-Trichloroethane	128	ug/L	1.0	06/08/18 16:39	
EPA 8260	1,1-Dichloroethane	9.1	ug/L	1.0	06/08/18 16:39	
EPA 8260	1,1-Dichloroethene	3.1	ug/L	1.0	06/08/18 16:39	
EPA 8260	Acetone	9.5J	ug/L	20.0	06/08/18 16:39	
EPA 8260	Tetrachloroethene	24.7	ug/L	1.0	06/08/18 16:39	
EPA 8260	Trichloroethene	93.3	ug/L	1.0	06/08/18 16:39	
EPA 8260	cis-1,2-Dichloroethene	4.2	ug/L	1.0	06/08/18 16:39	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40170432006	**GP-88D**					
EPA 8260	1,1,1-Trichloroethane	3.6	ug/L	1.0	06/08/18 17:01	
EPA 8260	Acetone	3.9J	ug/L	20.0	06/08/18 17:01	
EPA 8260	Tetrachloroethene	1.6	ug/L	1.0	06/08/18 17:01	
EPA 8260	Trichloroethene	2.0	ug/L	1.0	06/08/18 17:01	
40170432007	**GP-89**					
EPA 8260	Acetone	5.0J	ug/L	20.0	06/08/18 17:23	
EPA 8260	Trichloroethene	0.95J	ug/L	1.0	06/08/18 17:23	
40170432008	**GP-90S**					
EPA 8260	2-Propanol	32.4J	ug/L	250	06/08/18 17:44	
EPA 8260	Tetrachloroethene	5.6	ug/L	1.0	06/08/18 17:44	
40170432009	**GP-90D**					
EPA 8260	1,1,1-Trichloroethane	6.2	ug/L	1.0	06/08/18 18:06	
EPA 8260	Tetrachloroethene	23.3	ug/L	1.0	06/08/18 18:06	
EPA 8260	Trichloroethene	0.36J	ug/L	1.0	06/08/18 18:06	

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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: SVE-4 **Lab ID: 40170432001** Collected: 06/05/18 08:05 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<113**	ug/L	625	113	625		06/08/18 19:55	630-20-6	
1,1,1-Trichloroethane	**29800**	ug/L	625	312	625		06/08/18 19:55	71-55-6	
1,1,2,2-Tetrachloroethane	**<156**	ug/L	625	156	625		06/08/18 19:55	79-34-5	
1,1,2-Trichloroethane	**8180**	ug/L	625	123	625		06/08/18 19:55	79-00-5	
1,1-Dichloroethane	**2270**	ug/L	625	151	625		06/08/18 19:55	75-34-3	
1,1-Dichloroethene	**2160**	ug/L	625	256	625		06/08/18 19:55	75-35-4	
1,1-Dichloropropene	**<276**	ug/L	625	276	625		06/08/18 19:55	563-58-6	
1,2,3-Trichlorobenzene	**<1330**	ug/L	3120	1330	625		06/08/18 19:55	87-61-6	
1,2,3-Trichloropropane	**<312**	ug/L	625	312	625		06/08/18 19:55	96-18-4	
1,2,4-Trichlorobenzene	**<1380**	ug/L	3120	1380	625		06/08/18 19:55	120-82-1	
1,2,4-Trimethylbenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	95-63-6	
1,2-Dibromo-3-chloropropane	**<1350**	ug/L	3120	1350	625		06/08/18 19:55	96-12-8	
1,2-Dibromoethane (EDB)	**<111**	ug/L	625	111	625		06/08/18 19:55	106-93-4	
1,2-Dichlorobenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	95-50-1	
1,2-Dichloroethane	**338J**	ug/L	625	105	625		06/08/18 19:55	107-06-2	
1,2-Dichloropropane	**445J**	ug/L	625	146	625		06/08/18 19:55	78-87-5	
1,3,5-Trimethylbenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	108-67-8	
1,3-Dichlorobenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	541-73-1	
1,3-Dichloropropane	**<312**	ug/L	625	312	625		06/08/18 19:55	142-28-9	
1,4-Dichlorobenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	106-46-7	
2,2-Dichloropropane	**<302**	ug/L	625	302	625		06/08/18 19:55	594-20-7	
2-Butanone (MEK)	**<1860**	ug/L	12500	1860	625		06/08/18 19:55	78-93-3	
2-Chlorotoluene	**<312**	ug/L	625	312	625		06/08/18 19:55	95-49-8	
2-Propanol	**<15200**	ug/L	156000	15200	625		06/08/18 19:55	67-63-0	
4-Chlorotoluene	**<134**	ug/L	625	134	625		06/08/18 19:55	106-43-4	
4-Methyl-2-pentanone (MIBK)	**4170**	ug/L	3120	1340	625		06/08/18 19:55	108-10-1	
Acetone	**6880J**	ug/L	12500	1850	625		06/08/18 19:55	67-64-1	
Benzene	**<312**	ug/L	625	312	625		06/08/18 19:55	71-43-2	
Bromobenzene	**<144**	ug/L	625	144	625		06/08/18 19:55	108-86-1	
Bromochloromethane	**<213**	ug/L	625	213	625		06/08/18 19:55	74-97-5	
Bromodichloromethane	**<312**	ug/L	625	312	625		06/08/18 19:55	75-27-4	
Bromoform	**<312**	ug/L	625	312	625		06/08/18 19:55	75-25-2	
Bromomethane	**<1520**	ug/L	3120	1520	625		06/08/18 19:55	74-83-9	
Carbon tetrachloride	**<312**	ug/L	625	312	625		06/08/18 19:55	56-23-5	
Chlorobenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	108-90-7	
Chloroethane	**<234**	ug/L	625	234	625		06/08/18 19:55	75-00-3	
Chloroform	**<1560**	ug/L	3120	1560	625		06/08/18 19:55	67-66-3	
Chloromethane	**<312**	ug/L	625	312	625		06/08/18 19:55	74-87-3	
Dibromochloromethane	**<312**	ug/L	625	312	625		06/08/18 19:55	124-48-1	
Dibromomethane	**<267**	ug/L	625	267	625		06/08/18 19:55	74-95-3	
Dichlorodifluoromethane	**<140**	ug/L	625	140	625		06/08/18 19:55	75-71-8	
Diisopropyl ether	**<312**	ug/L	625	312	625		06/08/18 19:55	108-20-3	
Ethylbenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	100-41-4	
Hexachloro-1,3-butadiene	**<1320**	ug/L	3120	1320	625		06/08/18 19:55	87-68-3	
Isopropylbenzene (Cumene)	**<89.6**	ug/L	625	89.6	625		06/08/18 19:55	98-82-8	
Methyl-tert-butyl ether	**<109**	ug/L	625	109	625		06/08/18 19:55	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: SVE-4 **Lab ID: 40170432001** Collected: 06/05/18 08:05 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**4680**	ug/L	625	145	625		06/08/18 19:55	75-09-2	
Naphthalene	**<1560**	ug/L	3120	1560	625		06/08/18 19:55	91-20-3	
Styrene	**<312**	ug/L	625	312	625		06/08/18 19:55	100-42-5	
Tetrachloroethene	**15600**	ug/L	625	312	625		06/08/18 19:55	127-18-4	
Toluene	**515J**	ug/L	625	312	625		06/08/18 19:55	108-88-3	
Trichloroethene	**13200**	ug/L	625	207	625		06/08/18 19:55	79-01-6	
Trichlorofluoromethane	**<116**	ug/L	625	116	625		06/08/18 19:55	75-69-4	
Vinyl chloride	**152J**	ug/L	625	110	625		06/08/18 19:55	75-01-4	
Xylene (Total)	**<938**	ug/L	1880	938	625		06/08/18 19:55	1330-20-7	
cis-1,2-Dichloroethene	**82300**	ug/L	625	160	625		06/08/18 19:55	156-59-2	
cis-1,3-Dichloropropene	**<312**	ug/L	625	312	625		06/08/18 19:55	10061-01-5	
m&p-Xylene	**<625**	ug/L	1250	625	625		06/08/18 19:55	179601-23-1	
n-Butylbenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	104-51-8	
n-Propylbenzene	**<312**	ug/L	625	312	625		06/08/18 19:55	103-65-1	
o-Xylene	**<312**	ug/L	625	312	625		06/08/18 19:55	95-47-6	
p-Isopropyltoluene	**<312**	ug/L	625	312	625		06/08/18 19:55	99-87-6	
sec-Butylbenzene	**<1370**	ug/L	3120	1370	625		06/08/18 19:55	135-98-8	
tert-Butylbenzene	**<113**	ug/L	625	113	625		06/08/18 19:55	98-06-6	
trans-1,2-Dichloroethene	**<160**	ug/L	625	160	625		06/08/18 19:55	156-60-5	
trans-1,3-Dichloropropene	**<144**	ug/L	625	144	625		06/08/18 19:55	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	122	%	70-130		625		06/08/18 19:55	1868-53-7	
Toluene-d8 (S)	97	%	70-130		625		06/08/18 19:55	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		625		06/08/18 19:55	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-86 **Lab ID: 40170432002** Collected: 06/05/18 09:50 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<1.8**	ug/L	10.0	1.8	10		06/08/18 19:33	630-20-6	
1,1,1-Trichloroethane	**1090**	ug/L	10.0	5.0	10		06/08/18 19:33	71-55-6	
1,1,2,2-Tetrachloroethane	**<2.5**	ug/L	10.0	2.5	10		06/08/18 19:33	79-34-5	
1,1,2-Trichloroethane	**35.1**	ug/L	10.0	2.0	10		06/08/18 19:33	79-00-5	
1,1-Dichloroethane	**36.0**	ug/L	10.0	2.4	10		06/08/18 19:33	75-34-3	
1,1-Dichloroethene	**30.0**	ug/L	10.0	4.1	10		06/08/18 19:33	75-35-4	
1,1-Dichloropropene	**<4.4**	ug/L	10.0	4.4	10		06/08/18 19:33	563-58-6	
1,2,3-Trichlorobenzene	**<21.3**	ug/L	50.0	21.3	10		06/08/18 19:33	87-61-6	
1,2,3-Trichloropropane	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	96-18-4	
1,2,4-Trichlorobenzene	**<22.1**	ug/L	50.0	22.1	10		06/08/18 19:33	120-82-1	
1,2,4-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	95-63-6	
1,2-Dibromo-3-chloropropane	**<21.6**	ug/L	50.0	21.6	10		06/08/18 19:33	96-12-8	
1,2-Dibromoethane (EDB)	**<1.8**	ug/L	10.0	1.8	10		06/08/18 19:33	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	95-50-1	
1,2-Dichloroethane	**<1.7**	ug/L	10.0	1.7	10		06/08/18 19:33	107-06-2	
1,2-Dichloropropane	**<2.3**	ug/L	10.0	2.3	10		06/08/18 19:33	78-87-5	
1,3,5-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	108-67-8	
1,3-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	541-73-1	
1,3-Dichloropropane	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	142-28-9	
1,4-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	106-46-7	
2,2-Dichloropropane	**<4.8**	ug/L	10.0	4.8	10		06/08/18 19:33	594-20-7	
2-Butanone (MEK)	**<29.8**	ug/L	200	29.8	10		06/08/18 19:33	78-93-3	
2-Chlorotoluene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	95-49-8	
2-Propanol	**<243**	ug/L	2500	243	10		06/08/18 19:33	67-63-0	
4-Chlorotoluene	**<2.1**	ug/L	10.0	2.1	10		06/08/18 19:33	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<21.4**	ug/L	50.0	21.4	10		06/08/18 19:33	108-10-1	
Acetone	**<29.5**	ug/L	200	29.5	10		06/08/18 19:33	67-64-1	
Benzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	71-43-2	
Bromobenzene	**<2.3**	ug/L	10.0	2.3	10		06/08/18 19:33	108-86-1	
Bromochloromethane	**<3.4**	ug/L	10.0	3.4	10		06/08/18 19:33	74-97-5	
Bromodichloromethane	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	75-27-4	
Bromoform	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	75-25-2	
Bromomethane	**<24.3**	ug/L	50.0	24.3	10		06/08/18 19:33	74-83-9	
Carbon tetrachloride	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	56-23-5	
Chlorobenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	108-90-7	
Chloroethane	**<3.7**	ug/L	10.0	3.7	10		06/08/18 19:33	75-00-3	
Chloroform	**<25.0**	ug/L	50.0	25.0	10		06/08/18 19:33	67-66-3	
Chloromethane	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	74-87-3	
Dibromochloromethane	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	124-48-1	
Dibromomethane	**<4.3**	ug/L	10.0	4.3	10		06/08/18 19:33	74-95-3	
Dichlorodifluoromethane	**<2.2**	ug/L	10.0	2.2	10		06/08/18 19:33	75-71-8	
Diisopropyl ether	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	108-20-3	
Ethylbenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	100-41-4	
Hexachloro-1,3-butadiene	**<21.1**	ug/L	50.0	21.1	10		06/08/18 19:33	87-68-3	
Isopropylbenzene (Cumene)	**<1.4**	ug/L	10.0	1.4	10		06/08/18 19:33	98-82-8	
Methyl-tert-butyl ether	**<1.7**	ug/L	10.0	1.7	10		06/08/18 19:33	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-86 **Lab ID: 40170432002** Collected: 06/05/18 09:50 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<2.3**	ug/L	10.0	2.3	10		06/08/18 19:33	75-09-2	
Naphthalene	**<25.0**	ug/L	50.0	25.0	10		06/08/18 19:33	91-20-3	
Styrene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	100-42-5	
Tetrachloroethene	**368**	ug/L	10.0	5.0	10		06/08/18 19:33	127-18-4	
Toluene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	108-88-3	
Trichloroethene	**1340**	ug/L	10.0	3.3	10		06/08/18 19:33	79-01-6	
Trichlorofluoromethane	**<1.8**	ug/L	10.0	1.8	10		06/08/18 19:33	75-69-4	
Vinyl chloride	**<1.8**	ug/L	10.0	1.8	10		06/08/18 19:33	75-01-4	
Xylene (Total)	**<15.0**	ug/L	30.0	15.0	10		06/08/18 19:33	1330-20-7	
cis-1,2-Dichloroethene	**305**	ug/L	10.0	2.6	10		06/08/18 19:33	156-59-2	
cis-1,3-Dichloropropene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	10061-01-5	
m&p-Xylene	**<10.0**	ug/L	20.0	10.0	10		06/08/18 19:33	179601-23-1	
n-Butylbenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	104-51-8	
n-Propylbenzene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	103-65-1	
o-Xylene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	95-47-6	
p-Isopropyltoluene	**<5.0**	ug/L	10.0	5.0	10		06/08/18 19:33	99-87-6	
sec-Butylbenzene	**<21.9**	ug/L	50.0	21.9	10		06/08/18 19:33	135-98-8	
tert-Butylbenzene	**<1.8**	ug/L	10.0	1.8	10		06/08/18 19:33	98-06-6	
trans-1,2-Dichloroethene	**15.3**	ug/L	10.0	2.6	10		06/08/18 19:33	156-60-5	
trans-1,3-Dichloropropene	**<2.3**	ug/L	10.0	2.3	10		06/08/18 19:33	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	115	%	70-130		10		06/08/18 19:33	1868-53-7	
Toluene-d8 (S)	99	%	70-130		10		06/08/18 19:33	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		10		06/08/18 19:33	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-87S **Lab ID: 40170432003** Collected: 06/05/18 12:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 15:56	630-20-6	
1,1,1-Trichloroethane	**55.2**	ug/L	1.0	0.50	1		06/08/18 15:56	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 15:56	79-34-5	
1,1,2-Trichloroethane	**8.4**	ug/L	1.0	0.20	1		06/08/18 15:56	79-00-5	
1,1-Dichloroethane	**2.4**	ug/L	1.0	0.24	1		06/08/18 15:56	75-34-3	
1,1-Dichloroethene	**1.1**	ug/L	1.0	0.41	1		06/08/18 15:56	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 15:56	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 15:56	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 15:56	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 15:56	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 15:56	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 15:56	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 15:56	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 15:56	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 15:56	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 15:56	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 15:56	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 15:56	108-10-1	
Acetone	**5.1J**	ug/L	20.0	3.0	1		06/08/18 15:56	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 15:56	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 15:56	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 15:56	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 15:56	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 15:56	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 15:56	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 15:56	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 15:56	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 15:56	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 15:56	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-87S **Lab ID: 40170432003** Collected: 06/05/18 12:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 15:56	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 15:56	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	100-42-5	
Tetrachloroethene	**10.2**	ug/L	1.0	0.50	1		06/08/18 15:56	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	108-88-3	
Trichloroethene	**39.1**	ug/L	1.0	0.33	1		06/08/18 15:56	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 15:56	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 15:56	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 15:56	1330-20-7	
cis-1,2-Dichloroethene	**1.9**	ug/L	1.0	0.26	1		06/08/18 15:56	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 15:56	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 15:56	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 15:56	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 15:56	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 15:56	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 15:56	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	120	%	70-130		1		06/08/18 15:56	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/08/18 15:56	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		1		06/08/18 15:56	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-87D **Lab ID: 40170432004** Collected: 06/05/18 12:45 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:18	630-20-6	
1,1,1-Trichloroethane	**1.2**	ug/L	1.0	0.50	1		06/08/18 16:18	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 16:18	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 16:18	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 16:18	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 16:18	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 16:18	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:18	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:18	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:18	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:18	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 16:18	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:18	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 16:18	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 16:18	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 16:18	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 16:18	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:18	108-10-1	
Acetone	**<3.0**	ug/L	20.0	3.0	1		06/08/18 16:18	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:18	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 16:18	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 16:18	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 16:18	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 16:18	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 16:18	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 16:18	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:18	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 16:18	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 16:18	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-87D **Lab ID: 40170432004** Collected: 06/05/18 12:45 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:18	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 16:18	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	108-88-3	
Trichloroethene	**0.94J**	ug/L	1.0	0.33	1		06/08/18 16:18	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:18	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:18	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 16:18	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 16:18	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 16:18	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:18	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:18	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:18	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 16:18	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:18	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	117	%	70-130		1		06/08/18 16:18	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/08/18 16:18	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		1		06/08/18 16:18	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-88S **Lab ID: 40170432005** Collected: 06/06/18 10:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:39	630-20-6	
1,1,1-Trichloroethane	**72.1**	ug/L	1.0	0.50	1		06/08/18 16:39	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 16:39	79-34-5	
1,1,2-Trichloroethane	**128**	ug/L	1.0	0.20	1		06/08/18 16:39	79-00-5	
1,1-Dichloroethane	**9.1**	ug/L	1.0	0.24	1		06/08/18 16:39	75-34-3	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.41	1		06/08/18 16:39	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 16:39	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:39	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:39	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:39	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:39	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 16:39	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:39	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 16:39	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 16:39	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 16:39	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 16:39	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:39	108-10-1	
Acetone	**9.5J**	ug/L	20.0	3.0	1		06/08/18 16:39	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:39	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 16:39	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 16:39	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 16:39	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 16:39	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 16:39	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 16:39	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 16:39	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 16:39	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 16:39	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-88S **Lab ID: 40170432005** Collected: 06/06/18 10:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:39	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 16:39	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	100-42-5	
Tetrachloroethene	**24.7**	ug/L	1.0	0.50	1		06/08/18 16:39	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	108-88-3	
Trichloroethene	**93.3**	ug/L	1.0	0.33	1		06/08/18 16:39	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:39	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:39	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 16:39	1330-20-7	
cis-1,2-Dichloroethene	**4.2**	ug/L	1.0	0.26	1		06/08/18 16:39	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 16:39	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 16:39	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 16:39	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 16:39	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 16:39	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 16:39	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	116	%	70-130		1		06/08/18 16:39	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/08/18 16:39	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		06/08/18 16:39	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-88D **Lab ID: 40170432006** Collected: 06/06/18 09:25 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:01	630-20-6	
1,1,1-Trichloroethane	**3.6**	ug/L	1.0	0.50	1		06/08/18 17:01	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 17:01	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 17:01	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 17:01	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 17:01	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 17:01	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:01	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:01	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:01	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:01	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:01	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:01	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 17:01	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 17:01	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 17:01	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 17:01	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:01	108-10-1	
Acetone	**3.9J**	ug/L	20.0	3.0	1		06/08/18 17:01	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:01	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 17:01	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 17:01	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 17:01	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:01	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 17:01	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 17:01	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:01	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 17:01	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:01	1634-04-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-88D **Lab ID: 40170432006** Collected: 06/06/18 09:25 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:01	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:01	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	100-42-5	
Tetrachloroethene	**1.6**	ug/L	1.0	0.50	1		06/08/18 17:01	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	108-88-3	
Trichloroethene	**2.0**	ug/L	1.0	0.33	1		06/08/18 17:01	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:01	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:01	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 17:01	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:01	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 17:01	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:01	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:01	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:01	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:01	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:01	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	119	%	70-130		1		06/08/18 17:01	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		06/08/18 17:01	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		06/08/18 17:01	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-89 **Lab ID: 40170432007** Collected: 06/06/18 08:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:23	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 17:23	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 17:23	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 17:23	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 17:23	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 17:23	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:23	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:23	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:23	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:23	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:23	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:23	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 17:23	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 17:23	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 17:23	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 17:23	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:23	108-10-1	
Acetone	**5.0J**	ug/L	20.0	3.0	1		06/08/18 17:23	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:23	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 17:23	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 17:23	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 17:23	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:23	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 17:23	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 17:23	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:23	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 17:23	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:23	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-89 **Lab ID: 40170432007** Collected: 06/06/18 08:30 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:23	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:23	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	108-88-3	
Trichloroethene	**0.95J**	ug/L	1.0	0.33	1		06/08/18 17:23	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:23	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:23	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 17:23	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:23	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 17:23	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:23	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:23	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:23	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:23	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:23	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	121	%	70-130		1		06/08/18 17:23	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/08/18 17:23	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		06/08/18 17:23	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-90S **Lab ID: 40170432008** Collected: 06/06/18 15:15 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:44	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 17:44	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 17:44	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 17:44	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 17:44	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 17:44	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:44	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:44	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:44	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:44	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:44	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:44	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 17:44	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 17:44	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	95-49-8	
2-Propanol	**32.4J**	ug/L	250	24.3	1		06/08/18 17:44	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 17:44	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:44	108-10-1	
Acetone	**<3.0**	ug/L	20.0	3.0	1		06/08/18 17:44	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:44	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 17:44	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 17:44	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 17:44	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:44	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 17:44	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 17:44	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 17:44	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 17:44	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 17:44	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-90S **Lab ID: 40170432008** Collected: 06/06/18 15:15 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:44	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 17:44	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	100-42-5	
Tetrachloroethene	**5.6**	ug/L	1.0	0.50	1		06/08/18 17:44	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/08/18 17:44	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:44	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:44	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 17:44	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:44	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 17:44	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 17:44	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 17:44	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 17:44	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 17:44	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 17:44	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	119	%	70-130		1		06/08/18 17:44	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/08/18 17:44	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		1		06/08/18 17:44	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-90D **Lab ID: 40170432009** Collected: 06/06/18 14:45 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 18:06	630-20-6	
1,1,1-Trichloroethane	**6.2**	ug/L	1.0	0.50	1		06/08/18 18:06	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 18:06	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 18:06	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 18:06	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 18:06	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 18:06	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 18:06	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 18:06	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 18:06	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 18:06	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 18:06	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 18:06	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 18:06	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 18:06	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 18:06	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 18:06	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 18:06	108-10-1	
Acetone	**<3.0**	ug/L	20.0	3.0	1		06/08/18 18:06	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 18:06	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 18:06	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 18:06	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 18:06	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 18:06	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 18:06	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 18:06	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 18:06	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 18:06	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 18:06	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: GP-90D **Lab ID: 40170432009** Collected: 06/06/18 14:45 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 18:06	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 18:06	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	100-42-5	
Tetrachloroethene	**23.3**	ug/L	1.0	0.50	1		06/08/18 18:06	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	108-88-3	
Trichloroethene	**0.36J**	ug/L	1.0	0.33	1		06/08/18 18:06	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 18:06	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 18:06	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 18:06	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 18:06	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 18:06	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 18:06	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 18:06	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 18:06	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 18:06	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 18:06	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	122	%	70-130		1		06/08/18 18:06	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		06/08/18 18:06	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		06/08/18 18:06	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: TRIP BLANK **Lab ID: 40170432010** Collected: 06/06/18 00:00 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 14:51	630-20-6	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/08/18 14:51	79-34-5	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/08/18 14:51	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/08/18 14:51	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/08/18 14:51	75-35-4	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/08/18 14:51	563-58-6	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 14:51	87-61-6	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	96-18-4	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 14:51	120-82-1	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/08/18 14:51	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/08/18 14:51	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/08/18 14:51	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/08/18 14:51	78-87-5	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	108-67-8	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	541-73-1	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	142-28-9	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	106-46-7	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/08/18 14:51	594-20-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		06/08/18 14:51	78-93-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	95-49-8	
2-Propanol	**<24.3**	ug/L	250	24.3	1		06/08/18 14:51	67-63-0	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/08/18 14:51	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<2.1**	ug/L	5.0	2.1	1		06/08/18 14:51	108-10-1	
Acetone	**<3.0**	ug/L	20.0	3.0	1		06/08/18 14:51	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 14:51	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/08/18 14:51	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/08/18 14:51	74-83-9	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/08/18 14:51	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/08/18 14:51	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/08/18 14:51	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/08/18 14:51	75-71-8	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/08/18 14:51	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/08/18 14:51	98-82-8	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/08/18 14:51	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Sample: TRIP BLANK **Lab ID: 40170432010** Collected: 06/06/18 00:00 Received: 06/07/18 09:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/08/18 14:51	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/08/18 14:51	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/08/18 14:51	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/08/18 14:51	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/08/18 14:51	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		06/08/18 14:51	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 14:51	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	10061-01-5	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/08/18 14:51	179601-23-1	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	104-51-8	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	103-65-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	95-47-6	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/08/18 14:51	99-87-6	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/08/18 14:51	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/08/18 14:51	98-06-6	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/08/18 14:51	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/08/18 14:51	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	116	%	70-130		1		06/08/18 14:51	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		06/08/18 14:51	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		06/08/18 14:51	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

QC Batch: 291361 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 40170432001, 40170432002, 40170432003, 40170432004, 40170432005, 40170432006, 40170432007, 40170432008, 40170432009, 40170432010

METHOD BLANK: 1703724 Matrix: Water
Associated Lab Samples: 40170432001, 40170432002, 40170432003, 40170432004, 40170432005, 40170432006, 40170432007, 40170432008, 40170432009, 40170432010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	06/08/18 10:11	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	06/08/18 10:11	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	06/08/18 10:11	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	06/08/18 10:11	
1,1-Dichloroethane	ug/L	<0.24	1.0	06/08/18 10:11	
1,1-Dichloroethene	ug/L	<0.41	1.0	06/08/18 10:11	
1,1-Dichloropropene	ug/L	<0.44	1.0	06/08/18 10:11	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	06/08/18 10:11	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	06/08/18 10:11	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	06/08/18 10:11	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	06/08/18 10:11	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	06/08/18 10:11	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	06/08/18 10:11	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	06/08/18 10:11	
1,2-Dichloroethane	ug/L	<0.17	1.0	06/08/18 10:11	
1,2-Dichloropropane	ug/L	<0.23	1.0	06/08/18 10:11	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	06/08/18 10:11	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	06/08/18 10:11	
1,3-Dichloropropane	ug/L	<0.50	1.0	06/08/18 10:11	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	06/08/18 10:11	
2,2-Dichloropropane	ug/L	<0.48	1.0	06/08/18 10:11	
2-Butanone (MEK)	ug/L	<3.0	20.0	06/08/18 10:11	
2-Chlorotoluene	ug/L	<0.50	1.0	06/08/18 10:11	
2-Propanol	ug/L	<24.3	250	06/08/18 10:11	
4-Chlorotoluene	ug/L	<0.21	1.0	06/08/18 10:11	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.1	5.0	06/08/18 10:11	
Acetone	ug/L	<3.0	20.0	06/08/18 10:11	
Benzene	ug/L	<0.50	1.0	06/08/18 10:11	
Bromobenzene	ug/L	<0.23	1.0	06/08/18 10:11	
Bromochloromethane	ug/L	<0.34	1.0	06/08/18 10:11	
Bromodichloromethane	ug/L	<0.50	1.0	06/08/18 10:11	
Bromoform	ug/L	<0.50	1.0	06/08/18 10:11	
Bromomethane	ug/L	<2.4	5.0	06/08/18 10:11	
Carbon tetrachloride	ug/L	<0.50	1.0	06/08/18 10:11	
Chlorobenzene	ug/L	<0.50	1.0	06/08/18 10:11	
Chloroethane	ug/L	<0.37	1.0	06/08/18 10:11	
Chloroform	ug/L	<2.5	5.0	06/08/18 10:11	
Chloromethane	ug/L	<0.50	1.0	06/08/18 10:11	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	06/08/18 10:11	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	06/08/18 10:11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

METHOD BLANK: 1703724 Matrix: Water

Associated Lab Samples: 40170432001, 40170432002, 40170432003, 40170432004, 40170432005, 40170432006, 40170432007, 40170432008, 40170432009, 40170432010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.50	1.0	06/08/18 10:11	
Dibromomethane	ug/L	<0.43	1.0	06/08/18 10:11	
Dichlorodifluoromethane	ug/L	<0.22	1.0	06/08/18 10:11	
Diisopropyl ether	ug/L	<0.50	1.0	06/08/18 10:11	
Ethylbenzene	ug/L	<0.50	1.0	06/08/18 10:11	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	06/08/18 10:11	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	06/08/18 10:11	
m&p-Xylene	ug/L	<1.0	2.0	06/08/18 10:11	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	06/08/18 10:11	
Methylene Chloride	ug/L	<0.23	1.0	06/08/18 10:11	
n-Butylbenzene	ug/L	<0.50	1.0	06/08/18 10:11	
n-Propylbenzene	ug/L	<0.50	1.0	06/08/18 10:11	
Naphthalene	ug/L	<2.5	5.0	06/08/18 10:11	
o-Xylene	ug/L	<0.50	1.0	06/08/18 10:11	
p-Isopropyltoluene	ug/L	<0.50	1.0	06/08/18 10:11	
sec-Butylbenzene	ug/L	<2.2	5.0	06/08/18 10:11	
Styrene	ug/L	<0.50	1.0	06/08/18 10:11	
tert-Butylbenzene	ug/L	<0.18	1.0	06/08/18 10:11	
Tetrachloroethene	ug/L	<0.50	1.0	06/08/18 10:11	
Toluene	ug/L	<0.50	1.0	06/08/18 10:11	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	06/08/18 10:11	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	06/08/18 10:11	
Trichloroethene	ug/L	<0.33	1.0	06/08/18 10:11	
Trichlorofluoromethane	ug/L	<0.18	1.0	06/08/18 10:11	
Vinyl chloride	ug/L	<0.18	1.0	06/08/18 10:11	
Xylene (Total)	ug/L	<1.5	3.0	06/08/18 10:11	
4-Bromofluorobenzene (S)	%	96	70-130	06/08/18 10:11	
Dibromofluoromethane (S)	%	111	70-130	06/08/18 10:11	
Toluene-d8 (S)	%	99	70-130	06/08/18 10:11	

LABORATORY CONTROL SAMPLE: 1703725

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.5	113	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	51.0	102	67-130	
1,1,2-Trichloroethane	ug/L	50	49.9	100	70-130	
1,1-Dichloroethane	ug/L	50	58.5	117	70-134	
1,1-Dichloroethene	ug/L	50	49.5	99	75-132	
1,2,4-Trichlorobenzene	ug/L	50	47.4	95	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.8	104	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	50.4	101	70-130	
1,2-Dichlorobenzene	ug/L	50	50.9	102	70-130	
1,2-Dichloroethane	ug/L	50	53.7	107	73-134	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

LABORATORY CONTROL SAMPLE: 1703725

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloropropane	ug/L	50	53.9	108	79-128	
1,3-Dichlorobenzene	ug/L	50	49.7	99	70-130	
1,4-Dichlorobenzene	ug/L	50	52.4	105	70-130	
Benzene	ug/L	50	50.0	100	69-137	
Bromodichloromethane	ug/L	50	59.0	118	70-130	
Bromoform	ug/L	50	47.4	95	64-133	
Bromomethane	ug/L	50	19.1	38	29-123	
Carbon tetrachloride	ug/L	50	59.1	118	73-142	
Chlorobenzene	ug/L	50	51.8	104	70-130	
Chloroethane	ug/L	50	43.7	87	59-133	
Chloroform	ug/L	50	53.9	108	80-129	
Chloromethane	ug/L	50	21.6	43	27-125	
cis-1,2-Dichloroethene	ug/L	50	48.5	97	70-134	
cis-1,3-Dichloropropene	ug/L	50	43.7	87	70-130	
Dibromochloromethane	ug/L	50	54.0	108	70-130	
Dichlorodifluoromethane	ug/L	50	32.1	64	12-127	
Ethylbenzene	ug/L	50	54.4	109	86-127	
Isopropylbenzene (Cumene)	ug/L	50	55.4	111	70-130	
m&p-Xylene	ug/L	100	111	111	70-131	
Methyl-tert-butyl ether	ug/L	50	48.0	96	65-136	
Methylene Chloride	ug/L	50	53.8	108	72-133	
o-Xylene	ug/L	50	56.2	112	70-130	
Styrene	ug/L	50	55.4	111	70-130	
Tetrachloroethene	ug/L	50	49.3	99	70-130	
Toluene	ug/L	50	50.3	101	84-124	
trans-1,2-Dichloroethene	ug/L	50	61.9	124	70-133	
trans-1,3-Dichloropropene	ug/L	50	37.1	74	67-130	
Trichloroethene	ug/L	50	55.4	111	70-130	
Trichlorofluoromethane	ug/L	50	54.4	109	69-147	
Vinyl chloride	ug/L	50	35.2	70	48-134	
Xylene (Total)	ug/L	150	168	112	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			95	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 55929.005 WRR-GW
Pace Project No.: 40170432

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40170432001	**SVE-4**	EPA 8260	291361		
40170432002	**GP-86**	EPA 8260	291361		
40170432003	**GP-87S**	EPA 8260	291361		
40170432004	**GP-87D**	EPA 8260	291361		
40170432005	**GP-88S**	EPA 8260	291361		
40170432006	**GP-88D**	EPA 8260	291361		
40170432007	**GP-89**	EPA 8260	291361		
40170432008	**GP-90S**	EPA 8260	291361		
40170432009	**GP-90D**	EPA 8260	291361		
40170432010	**TRIP BLANK**	EPA 8260	291361		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40170432

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Gannett Fleming
Branch/Location:	Madison, WI
Project Contact:	Anthony Miller
Phone:	608-836-1500
Project Number:	55929.005
Project Name:	WRR - GW
Project State:	WI
Sampled By (Print):	Chelsea Payne
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Anthony Miller
Mail To Company:	Gannett Fleming
Mail To Address:	8025 Excelsior Dr Madison, WI 53717
Invoice To Contact:	See mail to
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	608-836-1500

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: VOC 8260	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	SVE-4	6.5.18	8:05	GW	N	B	3			
002	GP-86	↓	9:50	↓	↓	↓	↓			
003	GP-87 S	↓	12:30	↓	↓	↓	↓			
004	GP-87 D	6.5.18	12:45	↓	↓	↓	↓			
005	GP-88 S	6.6.18	10:30	↓	↓	↓	↓			
006	GP-88 D	"	9:25	↓	↓	↓	↓			
007	GP-89	"	8:30	↓	↓	↓	↓			
008	GP-90 S	↓	15:15	↓	↓	↓	↓			
009	GP-90 D	↓	14:45	↓	↓	↓	↓			
010	Trip Blank	6.6.18		↓	↓	↓	2			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	6.6.18 17:00		
Fed Ex	6/7/18 0920		6/7/18 0920

PACE Project No.: 40170432
Receipt Temp = 1.0 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: Gannett Fleming

Sample Preservation Receipt Form

Project # 40170432

All containers needing preservation have been checked and noted below: □Yes □No ☒N/A

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																		3															2.5 / 5 / 10
002																		3															2.5 / 5 / 10
003																		3															2.5 / 5 / 10
004																		3															2.5 / 5 / 10
005																		3															2.5 / 5 / 10
006																		3															2.5 / 5 / 10
007																		3															2.5 / 5 / 10
008																		3															2.5 / 5 / 10
009																		3															2.5 / 5 / 10
010																		1															2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: Headspace in VOA Vials (>6mm): ☒Yes □No □N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Gannett Fleming

Project #: WO#: 40170432

Courier: ☐ CS Logistics ☒ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other:

Tracking #: 8107 1982 1570

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROI /Corr:

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 6/7/18
Initials: SSM

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. No PO #, Quote #, Profile # SSM 6/7/18
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD: ☐Yes ☒No ☐N/A		8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☐Yes ☒No ☐N/A	12. 008 - Vial not labeled SSM 6/7/18
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 402		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: RMR for DM **Date:** 6/7/18

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 23, 2018

The analytical results and QA/QC data included with this report were reviewed by AWM on 08/23/18.

Tony Miller
Gannett Fleming
8025 Excelsior Drive
Madison, WI 53717

RE: Project: 55929.005 WRR
Pace Project No.: 40174235

Dear Tony Miller:
Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Chelsea Payne, Gannett Fleming Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 55929.005 WRR
Pace Project No.: 40174235

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 55929.005 WRR
Pace Project No.: 40174235

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40174235001	**W-34**	Water	08/15/18 09:30	08/17/18 09:35
40174235002	**SVE-4**	Water	08/15/18 10:40	08/17/18 09:35
40174235003	**TRIP BLANK**	Water	08/15/18 00:00	08/17/18 09:35

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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 55929.005 WRR
Pace Project No.: 40174235

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40174235001	**W-34**	EPA 8260	LAP	69
40174235002	**SVE-4**	EPA 8260	LAP	69
40174235003	**TRIP BLANK**	EPA 8260	LAP	69

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 55929.005 WRR
Pace Project No.: 40174235

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40174235001	**W-34**					
EPA 8260	1,1,1-Trichloroethane	1620	ug/L	125	08/21/18 13:39	
EPA 8260	1,1,2-Trichloroethane	632	ug/L	625	08/21/18 13:39	
EPA 8260	1,1-Dichloroethane	2110	ug/L	125	08/21/18 13:39	
EPA 8260	1,1-Dichloroethene	2040	ug/L	125	08/21/18 13:39	
EPA 8260	1,2-Dichloroethane	107J	ug/L	125	08/21/18 13:39	
EPA 8260	1,2-Dichloropropane	255	ug/L	125	08/21/18 13:39	
EPA 8260	Methylene Chloride	1150	ug/L	625	08/21/18 13:39	
EPA 8260	Tetrachloroethene	46.0J	ug/L	136	08/21/18 13:39	
EPA 8260	Toluene	302J	ug/L	625	08/21/18 13:39	
EPA 8260	Trichloroethene	1530	ug/L	125	08/21/18 13:39	
EPA 8260	Vinyl chloride	103J	ug/L	125	08/21/18 13:39	
EPA 8260	cis-1,2-Dichloroethene	35200	ug/L	125	08/21/18 13:39	
40174235002	**SVE-4**					
EPA 8260	1,1,1-Trichloroethane	315J	ug/L	400	08/21/18 14:01	
EPA 8260	1,1-Dichloroethane	1070	ug/L	400	08/21/18 14:01	
EPA 8260	1,1-Dichloroethene	127J	ug/L	400	08/21/18 14:01	
EPA 8260	Methylene Chloride	728J	ug/L	2000	08/21/18 14:01	
EPA 8260	Tetrachloroethene	551	ug/L	435	08/21/18 14:01	
EPA 8260	Trichloroethene	341J	ug/L	400	08/21/18 14:01	
EPA 8260	Vinyl chloride	164J	ug/L	400	08/21/18 14:01	
EPA 8260	cis-1,2-Dichloroethene	23700	ug/L	400	08/21/18 14:01	

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: W-34 **Lab ID: 40174235001** Collected: 08/15/18 09:30 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<33.6**	ug/L	125	33.6	125		08/21/18 13:39	630-20-6	
1,1,1-Trichloroethane	**1620**	ug/L	125	30.6	125		08/21/18 13:39	71-55-6	
1,1,2,2-Tetrachloroethane	**<34.4**	ug/L	125	34.4	125		08/21/18 13:39	79-34-5	
1,1,2-Trichloroethane	**632**	ug/L	625	69.0	125		08/21/18 13:39	79-00-5	
1,1-Dichloroethane	**2110**	ug/L	125	34.1	125		08/21/18 13:39	75-34-3	
1,1-Dichloroethene	**2040**	ug/L	125	30.6	125		08/21/18 13:39	75-35-4	
1,1-Dichloropropene	**<67.6**	ug/L	225	67.6	125		08/21/18 13:39	563-58-6	
1,2,3-Trichlorobenzene	**<78.2**	ug/L	625	78.2	125		08/21/18 13:39	87-61-6	
1,2,3-Trichloropropane	**<73.8**	ug/L	625	73.8	125		08/21/18 13:39	96-18-4	
1,2,4-Trichlorobenzene	**<119**	ug/L	625	119	125		08/21/18 13:39	120-82-1	
1,2,4-Trimethylbenzene	**<105**	ug/L	350	105	125		08/21/18 13:39	95-63-6	
1,2-Dibromo-3-chloropropane	**<220**	ug/L	735	220	125		08/21/18 13:39	96-12-8	
1,2-Dibromoethane (EDB)	**<104**	ug/L	346	104	125		08/21/18 13:39	106-93-4	
1,2-Dichlorobenzene	**<88.2**	ug/L	294	88.2	125		08/21/18 13:39	95-50-1	
1,2-Dichloroethane	**107J**	ug/L	125	35.0	125		08/21/18 13:39	107-06-2	
1,2-Dichloropropane	**255**	ug/L	125	35.3	125		08/21/18 13:39	78-87-5	
1,3,5-Trimethylbenzene	**<109**	ug/L	364	109	125		08/21/18 13:39	108-67-8	
1,3-Dichlorobenzene	**<78.5**	ug/L	262	78.5	125		08/21/18 13:39	541-73-1	
1,3-Dichloropropane	**<103**	ug/L	344	103	125		08/21/18 13:39	142-28-9	
1,4-Dichlorobenzene	**<118**	ug/L	393	118	125		08/21/18 13:39	106-46-7	
2,2-Dichloropropane	**<283**	ug/L	944	283	125		08/21/18 13:39	594-20-7	
2-Butanone (MEK)	**<367**	ug/L	2500	367	125		08/21/18 13:39	78-93-3	
2-Chlorotoluene	**<116**	ug/L	625	116	125		08/21/18 13:39	95-49-8	
2-Propanol	**<3610**	ug/L	31200	3610	125		08/21/18 13:39	67-63-0	
4-Chlorotoluene	**<94.5**	ug/L	315	94.5	125		08/21/18 13:39	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<191**	ug/L	638	191	125		08/21/18 13:39	108-10-1	
Acetone	**<343**	ug/L	2500	343	125		08/21/18 13:39	67-64-1	
Benzene	**<30.8**	ug/L	125	30.8	125		08/21/18 13:39	71-43-2	
Bromobenzene	**<30.1**	ug/L	125	30.1	125		08/21/18 13:39	108-86-1	
Bromochloromethane	**<45.3**	ug/L	625	45.3	125		08/21/18 13:39	74-97-5	
Bromodichloromethane	**<45.5**	ug/L	152	45.5	125		08/21/18 13:39	75-27-4	
Bromoform	**<496**	ug/L	1650	496	125		08/21/18 13:39	75-25-2	
Bromomethane	**<121**	ug/L	625	121	125		08/21/18 13:39	74-83-9	
Carbon tetrachloride	**<20.7**	ug/L	125	20.7	125		08/21/18 13:39	56-23-5	
Chlorobenzene	**<88.9**	ug/L	296	88.9	125		08/21/18 13:39	108-90-7	
Chloroethane	**<168**	ug/L	625	168	125		08/21/18 13:39	75-00-3	
Chloroform	**<159**	ug/L	625	159	125		08/21/18 13:39	67-66-3	
Chloromethane	**<274**	ug/L	912	274	125		08/21/18 13:39	74-87-3	
Dibromochloromethane	**<325**	ug/L	1080	325	125		08/21/18 13:39	124-48-1	
Dibromomethane	**<117**	ug/L	390	117	125		08/21/18 13:39	74-95-3	
Dichlorodifluoromethane	**<62.4**	ug/L	625	62.4	125		08/21/18 13:39	75-71-8	
Diisopropyl ether	**<236**	ug/L	787	236	125		08/21/18 13:39	108-20-3	
Ethylbenzene	**<27.3**	ug/L	125	27.3	125		08/21/18 13:39	100-41-4	
Hexachloro-1,3-butadiene	**<148**	ug/L	625	148	125		08/21/18 13:39	87-68-3	
Isopropylbenzene (Cumene)	**<49.1**	ug/L	333	49.1	125		08/21/18 13:39	98-82-8	
Methyl-tert-butyl ether	**<156**	ug/L	519	156	125		08/21/18 13:39	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: W-34 **Lab ID: 40174235001** Collected: 08/15/18 09:30 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**1150**	ug/L	625	72.6	125		08/21/18 13:39	75-09-2	
Naphthalene	**<147**	ug/L	625	147	125		08/21/18 13:39	91-20-3	
Styrene	**<58.2**	ug/L	194	58.2	125		08/21/18 13:39	100-42-5	
Tetrachloroethene	**46.0J**	ug/L	136	40.8	125		08/21/18 13:39	127-18-4	
Toluene	**302J**	ug/L	625	21.5	125		08/21/18 13:39	108-88-3	
Trichloroethene	**1530**	ug/L	125	31.9	125		08/21/18 13:39	79-01-6	
Trichlorofluoromethane	**<26.9**	ug/L	125	26.9	125		08/21/18 13:39	75-69-4	
Vinyl chloride	**103J**	ug/L	125	21.8	125		08/21/18 13:39	75-01-4	
Xylene (Total)	**<188**	ug/L	375	188	125		08/21/18 13:39	1330-20-7	
cis-1,2-Dichloroethene	**35200**	ug/L	125	33.9	125		08/21/18 13:39	156-59-2	
cis-1,3-Dichloropropene	**<454**	ug/L	1510	454	125		08/21/18 13:39	10061-01-5	
m&p-Xylene	**<58.2**	ug/L	250	58.2	125		08/21/18 13:39	179601-23-1	
n-Butylbenzene	**<88.5**	ug/L	295	88.5	125		08/21/18 13:39	104-51-8	
n-Propylbenzene	**<101**	ug/L	625	101	125		08/21/18 13:39	103-65-1	
o-Xylene	**<32.7**	ug/L	125	32.7	125		08/21/18 13:39	95-47-6	
p-Isopropyltoluene	**<100**	ug/L	333	100	125		08/21/18 13:39	99-87-6	
sec-Butylbenzene	**<106**	ug/L	625	106	125		08/21/18 13:39	135-98-8	
tert-Butylbenzene	**<38.0**	ug/L	127	38.0	125		08/21/18 13:39	98-06-6	
trans-1,2-Dichloroethene	**<136**	ug/L	454	136	125		08/21/18 13:39	156-60-5	
trans-1,3-Dichloropropene	**<546**	ug/L	1820	546	125		08/21/18 13:39	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	99	%	70-130		125		08/21/18 13:39	1868-53-7	
Toluene-d8 (S)	101	%	70-130		125		08/21/18 13:39	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		125		08/21/18 13:39	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: SVE-4 **Lab ID: 40174235002** Collected: 08/15/18 10:40 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<108**	ug/L	400	108	400		08/21/18 14:01	630-20-6	
1,1,1-Trichloroethane	**315J**	ug/L	400	97.9	400		08/21/18 14:01	71-55-6	
1,1,2,2-Tetrachloroethane	**<110**	ug/L	400	110	400		08/21/18 14:01	79-34-5	
1,1,2-Trichloroethane	**<221**	ug/L	2000	221	400		08/21/18 14:01	79-00-5	
1,1-Dichloroethane	**1070**	ug/L	400	109	400		08/21/18 14:01	75-34-3	
1,1-Dichloroethene	**127J**	ug/L	400	97.9	400		08/21/18 14:01	75-35-4	
1,1-Dichloropropene	**<216**	ug/L	720	216	400		08/21/18 14:01	563-58-6	
1,2,3-Trichlorobenzene	**<250**	ug/L	2000	250	400		08/21/18 14:01	87-61-6	
1,2,3-Trichloropropane	**<236**	ug/L	2000	236	400		08/21/18 14:01	96-18-4	
1,2,4-Trichlorobenzene	**<381**	ug/L	2000	381	400		08/21/18 14:01	120-82-1	
1,2,4-Trimethylbenzene	**<336**	ug/L	1120	336	400		08/21/18 14:01	95-63-6	
1,2-Dibromo-3-chloropropane	**<705**	ug/L	2350	705	400		08/21/18 14:01	96-12-8	
1,2-Dibromoethane (EDB)	**<332**	ug/L	1110	332	400		08/21/18 14:01	106-93-4	
1,2-Dichlorobenzene	**<282**	ug/L	940	282	400		08/21/18 14:01	95-50-1	
1,2-Dichloroethane	**<112**	ug/L	400	112	400		08/21/18 14:01	107-06-2	
1,2-Dichloropropane	**<113**	ug/L	400	113	400		08/21/18 14:01	78-87-5	
1,3,5-Trimethylbenzene	**<349**	ug/L	1160	349	400		08/21/18 14:01	108-67-8	
1,3-Dichlorobenzene	**<251**	ug/L	837	251	400		08/21/18 14:01	541-73-1	
1,3-Dichloropropane	**<330**	ug/L	1100	330	400		08/21/18 14:01	142-28-9	
1,4-Dichlorobenzene	**<377**	ug/L	1260	377	400		08/21/18 14:01	106-46-7	
2,2-Dichloropropane	**<906**	ug/L	3020	906	400		08/21/18 14:01	594-20-7	
2-Butanone (MEK)	**<1170**	ug/L	8000	1170	400		08/21/18 14:01	78-93-3	
2-Chlorotoluene	**<370**	ug/L	2000	370	400		08/21/18 14:01	95-49-8	
2-Propanol	**<11600**	ug/L	100000	11600	400		08/21/18 14:01	67-63-0	
4-Chlorotoluene	**<303**	ug/L	1010	303	400		08/21/18 14:01	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<613**	ug/L	2040	613	400		08/21/18 14:01	108-10-1	
Acetone	**<1100**	ug/L	8000	1100	400		08/21/18 14:01	67-64-1	
Benzene	**<98.6**	ug/L	400	98.6	400		08/21/18 14:01	71-43-2	
Bromobenzene	**<96.4**	ug/L	400	96.4	400		08/21/18 14:01	108-86-1	
Bromochloromethane	**<145**	ug/L	2000	145	400		08/21/18 14:01	74-97-5	
Bromodichloromethane	**<145**	ug/L	485	145	400		08/21/18 14:01	75-27-4	
Bromoform	**<1590**	ug/L	5300	1590	400		08/21/18 14:01	75-25-2	
Bromomethane	**<389**	ug/L	2000	389	400		08/21/18 14:01	74-83-9	
Carbon tetrachloride	**<66.3**	ug/L	400	66.3	400		08/21/18 14:01	56-23-5	
Chlorobenzene	**<284**	ug/L	948	284	400		08/21/18 14:01	108-90-7	
Chloroethane	**<537**	ug/L	2000	537	400		08/21/18 14:01	75-00-3	
Chloroform	**<510**	ug/L	2000	510	400		08/21/18 14:01	67-66-3	
Chloromethane	**<876**	ug/L	2920	876	400		08/21/18 14:01	74-87-3	
Dibromochloromethane	**<1040**	ug/L	3470	1040	400		08/21/18 14:01	124-48-1	
Dibromomethane	**<375**	ug/L	1250	375	400		08/21/18 14:01	74-95-3	
Dichlorodifluoromethane	**<200**	ug/L	2000	200	400		08/21/18 14:01	75-71-8	
Diisopropyl ether	**<755**	ug/L	2520	755	400		08/21/18 14:01	108-20-3	
Ethylbenzene	**<87.3**	ug/L	400	87.3	400		08/21/18 14:01	100-41-4	
Hexachloro-1,3-butadiene	**<473**	ug/L	2000	473	400		08/21/18 14:01	87-68-3	
Isopropylbenzene (Cumene)	**<157**	ug/L	1070	157	400		08/21/18 14:01	98-82-8	
Methyl-tert-butyl ether	**<498**	ug/L	1660	498	400		08/21/18 14:01	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: SVE-4 **Lab ID: 40174235002** Collected: 08/15/18 10:40 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**728J**	ug/L	2000	232	400		08/21/18 14:01	75-09-2	
Naphthalene	**<470**	ug/L	2000	470	400		08/21/18 14:01	91-20-3	
Styrene	**<186**	ug/L	621	186	400		08/21/18 14:01	100-42-5	
Tetrachloroethene	**551**	ug/L	435	131	400		08/21/18 14:01	127-18-4	
Toluene	**<68.8**	ug/L	2000	68.8	400		08/21/18 14:01	108-88-3	
Trichloroethene	**341J**	ug/L	400	102	400		08/21/18 14:01	79-01-6	
Trichlorofluoromethane	**<86.0**	ug/L	400	86.0	400		08/21/18 14:01	75-69-4	
Vinyl chloride	**164J**	ug/L	400	69.9	400		08/21/18 14:01	75-01-4	
Xylene (Total)	**<600**	ug/L	1200	600	400		08/21/18 14:01	1330-20-7	
cis-1,2-Dichloroethene	**23700**	ug/L	400	108	400		08/21/18 14:01	156-59-2	
cis-1,3-Dichloropropene	**<1450**	ug/L	4840	1450	400		08/21/18 14:01	10061-01-5	
m&p-Xylene	**<186**	ug/L	800	186	400		08/21/18 14:01	179601-23-1	
n-Butylbenzene	**<283**	ug/L	944	283	400		08/21/18 14:01	104-51-8	
n-Propylbenzene	**<324**	ug/L	2000	324	400		08/21/18 14:01	103-65-1	
o-Xylene	**<105**	ug/L	400	105	400		08/21/18 14:01	95-47-6	
p-Isopropyltoluene	**<320**	ug/L	1070	320	400		08/21/18 14:01	99-87-6	
sec-Butylbenzene	**<339**	ug/L	2000	339	400		08/21/18 14:01	135-98-8	
tert-Butylbenzene	**<122**	ug/L	405	122	400		08/21/18 14:01	98-06-6	
trans-1,2-Dichloroethene	**<436**	ug/L	1450	436	400		08/21/18 14:01	156-60-5	
trans-1,3-Dichloropropene	**<1750**	ug/L	5830	1750	400		08/21/18 14:01	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	100	%	70-130		400		08/21/18 14:01	1868-53-7	
Toluene-d8 (S)	103	%	70-130		400		08/21/18 14:01	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		400		08/21/18 14:01	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: TRIP BLANK **Lab ID: 40174235003** Collected: 08/15/18 00:00 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		08/21/18 15:47	630-20-6	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		08/21/18 15:47	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		08/21/18 15:47	79-34-5	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		08/21/18 15:47	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		08/21/18 15:47	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		08/21/18 15:47	75-35-4	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		08/21/18 15:47	563-58-6	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		08/21/18 15:47	87-61-6	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		08/21/18 15:47	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/21/18 15:47	120-82-1	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		08/21/18 15:47	95-63-6	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		08/21/18 15:47	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		08/21/18 15:47	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		08/21/18 15:47	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		08/21/18 15:47	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		08/21/18 15:47	78-87-5	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		08/21/18 15:47	108-67-8	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		08/21/18 15:47	541-73-1	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		08/21/18 15:47	142-28-9	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		08/21/18 15:47	106-46-7	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		08/21/18 15:47	594-20-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		08/21/18 15:47	78-93-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		08/21/18 15:47	95-49-8	
2-Propanol	**<28.9**	ug/L	250	28.9	1		08/21/18 15:47	67-63-0	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		08/21/18 15:47	106-43-4	
4-Methyl-2-pentanone (MIBK)	**<1.5**	ug/L	5.1	1.5	1		08/21/18 15:47	108-10-1	
Acetone	**<2.7**	ug/L	20.0	2.7	1		08/21/18 15:47	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		08/21/18 15:47	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		08/21/18 15:47	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		08/21/18 15:47	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		08/21/18 15:47	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		08/21/18 15:47	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		08/21/18 15:47	74-83-9	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		08/21/18 15:47	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		08/21/18 15:47	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		08/21/18 15:47	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		08/21/18 15:47	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		08/21/18 15:47	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		08/21/18 15:47	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		08/21/18 15:47	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		08/21/18 15:47	75-71-8	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		08/21/18 15:47	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		08/21/18 15:47	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		08/21/18 15:47	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	2.7	0.39	1		08/21/18 15:47	98-82-8	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		08/21/18 15:47	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 55929.005 WRR
Pace Project No.: 40174235

Sample: TRIP BLANK **Lab ID: 40174235003** Collected: 08/15/18 00:00 Received: 08/17/18 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		08/21/18 15:47	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		08/21/18 15:47	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		08/21/18 15:47	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		08/21/18 15:47	127-18-4	
Toluene	**<0.17**	ug/L	5.0	0.17	1		08/21/18 15:47	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		08/21/18 15:47	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		08/21/18 15:47	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/21/18 15:47	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		08/21/18 15:47	1330-20-7	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		08/21/18 15:47	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		08/21/18 15:47	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		08/21/18 15:47	179601-23-1	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		08/21/18 15:47	104-51-8	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		08/21/18 15:47	103-65-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		08/21/18 15:47	95-47-6	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		08/21/18 15:47	99-87-6	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		08/21/18 15:47	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		08/21/18 15:47	98-06-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		08/21/18 15:47	156-60-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		08/21/18 15:47	10061-02-6	
Surrogates									
Dibromofluoromethane (S)	103	%	70-130		1		08/21/18 15:47	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		08/21/18 15:47	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		08/21/18 15:47	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40174235

QC Batch: 297653 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 40174235001, 40174235002, 40174235003

METHOD BLANK: 1738613 Matrix: Water
Associated Lab Samples: 40174235001, 40174235002, 40174235003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	08/21/18 07:16	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	08/21/18 07:16	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	08/21/18 07:16	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	08/21/18 07:16	
1,1-Dichloroethane	ug/L	<0.27	1.0	08/21/18 07:16	
1,1-Dichloroethene	ug/L	<0.24	1.0	08/21/18 07:16	
1,1-Dichloropropene	ug/L	<0.54	1.8	08/21/18 07:16	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	08/21/18 07:16	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	08/21/18 07:16	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/21/18 07:16	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	08/21/18 07:16	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	08/21/18 07:16	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	08/21/18 07:16	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	08/21/18 07:16	
1,2-Dichloroethane	ug/L	<0.28	1.0	08/21/18 07:16	
1,2-Dichloropropane	ug/L	<0.28	1.0	08/21/18 07:16	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	08/21/18 07:16	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	08/21/18 07:16	
1,3-Dichloropropane	ug/L	<0.83	2.8	08/21/18 07:16	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	08/21/18 07:16	
2,2-Dichloropropane	ug/L	<2.3	7.6	08/21/18 07:16	
2-Butanone (MEK)	ug/L	<2.9	20.0	08/21/18 07:16	
2-Chlorotoluene	ug/L	<0.93	5.0	08/21/18 07:16	
2-Propanol	ug/L	<28.9	250	08/21/18 07:16	
4-Chlorotoluene	ug/L	<0.76	2.5	08/21/18 07:16	
4-Methyl-2-pentanone (MIBK)	ug/L	<1.5	5.1	08/21/18 07:16	
Acetone	ug/L	<2.7	20.0	08/21/18 07:16	
Benzene	ug/L	<0.25	1.0	08/21/18 07:16	
Bromobenzene	ug/L	<0.24	1.0	08/21/18 07:16	
Bromochloromethane	ug/L	<0.36	5.0	08/21/18 07:16	
Bromodichloromethane	ug/L	<0.36	1.2	08/21/18 07:16	
Bromoform	ug/L	<4.0	13.2	08/21/18 07:16	
Bromomethane	ug/L	<0.97	5.0	08/21/18 07:16	
Carbon tetrachloride	ug/L	<0.17	1.0	08/21/18 07:16	
Chlorobenzene	ug/L	<0.71	2.4	08/21/18 07:16	
Chloroethane	ug/L	<1.3	5.0	08/21/18 07:16	
Chloroform	ug/L	<1.3	5.0	08/21/18 07:16	
Chloromethane	ug/L	<2.2	7.3	08/21/18 07:16	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	08/21/18 07:16	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	08/21/18 07:16	
Dibromochloromethane	ug/L	<2.6	8.7	08/21/18 07:16	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40174235

METHOD BLANK: 1738613 Matrix: Water
Associated Lab Samples: 40174235001, 40174235002, 40174235003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	<0.94	3.1	08/21/18 07:16	
Dichlorodifluoromethane	ug/L	<0.50	5.0	08/21/18 07:16	
Diisopropyl ether	ug/L	<1.9	6.3	08/21/18 07:16	
Ethylbenzene	ug/L	<0.22	1.0	08/21/18 07:16	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	08/21/18 07:16	
Isopropylbenzene (Cumene)	ug/L	<0.39	2.7	08/21/18 07:16	
m&p-Xylene	ug/L	<0.47	2.0	08/21/18 07:16	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	08/21/18 07:16	
Methylene Chloride	ug/L	<0.58	5.0	08/21/18 07:16	
n-Butylbenzene	ug/L	<0.71	2.4	08/21/18 07:16	
n-Propylbenzene	ug/L	<0.81	5.0	08/21/18 07:16	
Naphthalene	ug/L	<1.2	5.0	08/21/18 07:16	
o-Xylene	ug/L	<0.26	1.0	08/21/18 07:16	
p-Isopropyltoluene	ug/L	<0.80	2.7	08/21/18 07:16	
sec-Butylbenzene	ug/L	<0.85	5.0	08/21/18 07:16	
Styrene	ug/L	<0.47	1.6	08/21/18 07:16	
tert-Butylbenzene	ug/L	<0.30	1.0	08/21/18 07:16	
Tetrachloroethene	ug/L	<0.33	1.1	08/21/18 07:16	
Toluene	ug/L	<0.17	5.0	08/21/18 07:16	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	08/21/18 07:16	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	08/21/18 07:16	
Trichloroethene	ug/L	<0.26	1.0	08/21/18 07:16	
Trichlorofluoromethane	ug/L	<0.21	1.0	08/21/18 07:16	
Vinyl chloride	ug/L	<0.17	1.0	08/21/18 07:16	
Xylene (Total)	ug/L	<1.5	3.0	08/21/18 07:16	
4-Bromofluorobenzene (S)	%	92	70-130	08/21/18 07:16	
Dibromofluoromethane (S)	%	103	70-130	08/21/18 07:16	
Toluene-d8 (S)	%	102	70-130	08/21/18 07:16	

LABORATORY CONTROL SAMPLE: 1738614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.1	110	70-130	
1,1,1-Trichloroethane	ug/L	50	48.4	97	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	51.5	103	67-130	
1,1,2-Trichloroethane	ug/L	50	52.1	104	70-130	
1,1-Dichloroethane	ug/L	50	48.3	97	70-134	
1,1-Dichloroethene	ug/L	50	53.6	107	75-132	
1,1-Dichloropropene	ug/L	50	48.5	97	70-130	
1,2,3-Trichlorobenzene	ug/L	50	51.4	103	70-130	
1,2,3-Trichloropropane	ug/L	50	50.9	102	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.9	102	68-130	
1,2,4-Trimethylbenzene	ug/L	50	55.0	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.4	103	60-126	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40174235

LABORATORY CONTROL SAMPLE: 1738614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	50	51.4	103	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	45.3	91	73-134	
1,2-Dichloropropane	ug/L	50	49.9	100	79-128	
1,3,5-Trimethylbenzene	ug/L	50	55.5	111	70-130	
1,3-Dichlorobenzene	ug/L	50	52.3	105	70-130	
1,3-Dichloropropane	ug/L	50	53.2	106	70-130	
1,4-Dichlorobenzene	ug/L	50	51.7	103	70-130	
2,2-Dichloropropane	ug/L	50	47.3	95	70-130	
2-Butanone (MEK)	ug/L	50	45.1	90	51-187	
2-Chlorotoluene	ug/L	50	54.8	110	70-130	
2-Propanol	ug/L	500	396	79	50-150	
4-Chlorotoluene	ug/L	50	53.2	106	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	50	39.4	79	50-150	
Acetone	ug/L	50	51.8	104	50-150	
Benzene	ug/L	50	46.4	93	69-137	
Bromobenzene	ug/L	50	50.3	101	70-130	
Bromochloromethane	ug/L	50	48.2	96	70-130	
Bromodichloromethane	ug/L	50	44.3	89	70-130	
Bromoform	ug/L	50	49.6	99	64-133	
Bromomethane	ug/L	50	36.2	72	29-123	
Carbon tetrachloride	ug/L	50	47.9	96	73-142	
Chlorobenzene	ug/L	50	53.0	106	70-130	
Chloroethane	ug/L	50	50.7	101	59-133	
Chloroform	ug/L	50	46.0	92	80-129	
Chloromethane	ug/L	50	42.7	85	27-125	
cis-1,2-Dichloroethene	ug/L	50	46.4	93	70-134	
cis-1,3-Dichloropropene	ug/L	50	47.1	94	70-130	
Dibromochloromethane	ug/L	50	52.2	104	70-130	
Dibromomethane	ug/L	50	47.6	95	70-130	
Dichlorodifluoromethane	ug/L	50	39.6	79	12-127	
Diisopropyl ether	ug/L	50	45.7	91	70-130	
Ethylbenzene	ug/L	50	54.7	109	86-127	
Hexachloro-1,3-butadiene	ug/L	50	57.0	114	70-130	
Isopropylbenzene (Cumene)	ug/L	50	56.4	113	70-130	
m&p-Xylene	ug/L	100	115	115	70-131	
Methyl-tert-butyl ether	ug/L	50	45.3	91	65-136	
Methylene Chloride	ug/L	50	47.2	94	72-133	
n-Butylbenzene	ug/L	50	58.1	116	70-130	
n-Propylbenzene	ug/L	50	55.0	110	70-130	
Naphthalene	ug/L	50	51.8	104	70-130	
o-Xylene	ug/L	50	55.9	112	70-130	
p-Isopropyltoluene	ug/L	50	55.8	112	70-130	
sec-Butylbenzene	ug/L	50	56.9	114	70-130	
Styrene	ug/L	50	55.9	112	70-130	
tert-Butylbenzene	ug/L	50	54.7	109	70-130	
Tetrachloroethene	ug/L	50	54.9	110	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 55929.005 WRR
Pace Project No.: 40174235

LABORATORY CONTROL SAMPLE: 1738614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	53.9	108	84-124	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	70-133	
trans-1,3-Dichloropropene	ug/L	50	51.6	103	67-130	
Trichloroethene	ug/L	50	49.2	98	70-130	
Trichlorofluoromethane	ug/L	50	51.7	103	69-147	
Vinyl chloride	ug/L	50	50.0	100	48-134	
Xylene (Total)	ug/L	150	171	114	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			96	70-130	
Toluene-d8 (S)	%			108	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 55929.005 WRR
Pace Project No.: 40174235

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 55929.005 WRR
Pace Project No.: 40174235

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40174235001	**W-34**	EPA 8260	297653		
40174235002	**SVE-4**	EPA 8260	297653		
40174235003	**TRIP BLANK**	EPA 8260	297653		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

SSM

40174235

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Gannett Fleming
Branch/Location:	Madison, WI
Project Contact:	Anthony Miller
Phone:	608-836-1500
Project Number:	55929.005
Project Name:	WRR
Project State:	WI
Sampled By (Print):	Chelsea Payne
Sampled By (Sign):	Chelsea Payne
PO #:	
Regulatory Program:	

Quote #:	
Mail To Contact:	Anthony Miller
Mail To Company:	Gannett Fleming
Mail To Address:	8025 Excelsior Dr. Madison, WI 53717
Invoice To Contact:	
Invoice To Company:	See Mail to
Invoice To Address:	
Invoice To Phone:	608-836-1500

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	B	VOC 8260			
001	W-34	8/15/18	9:30	GW			3			
002	SVE-4	↓	10:40	↓			3			
003	Trip Blank	↓		↓			2			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Chelsea Payne	8.16.18 10:00		
CS Logistics	8/17/18 0935	Pace	8/17/18 0935

PACE Project No.: 40174235
Receipt Temp = 0.1 °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

C019a(27Jun2006)
Version 6.0 06/14/06
ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Cannot fleming Project # 40174235

All containers needing preservation have been checked and noted below: □Yes □No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																		3															2.5 / 5 / 10
002																		3															2.5 / 5 / 10
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Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : □Yes ☑No □N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40174235

40174235

Client Name: Gannett Fleming

Courier: ☑ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☑ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 12.9 /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 8/17/18
Initials: _____

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: 8/17/18 S-W		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): USL		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: for [illegible] **Date:** 8/17/18

APPENDIX C

PRODUCT INFORMATION AND SAFETY DATA SHEET FOR NEUTRAL ZONE

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

www.rnasinc.com

Neutral Zone

Insoluble Solid Buffer

Neutral Zone® is an insoluble colloidal buffer that is suspended in water. Unlike soluble buffers it can be injected at high concentrations without causing an adversely high pH. When acids are present in groundwater the food grade insoluble calcium carbonate dissolves to form soluble bicarbonate. This normally limits pH to 8.5 or less in the injection area. Other soluble buffer materials can flush out of the treatment area with groundwater flow, limiting treatment time. Neutral Zone® solids are mobile during injection and are retained in the treatment area, unaffected by normal groundwater flow velocities.

Application

Neutral Zone® is normally diluted from 50% solids by weight to 0.5% to 2.0% solids and injected below the water table. After injection the retained solids slowly release sodium bicarbonate when acids are present. Solids can settle out if diluted product is not mixed for a period of several days. Best practice is to stir the suspension or make small batches of diluted material every few hours.

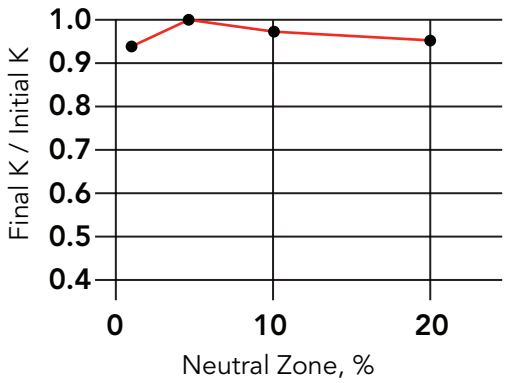
Benefits – Stable Suspension

Neutral Zone® stability is the result of a careful selection of sub-micron calcium carbonate materials, proprietary additives, and manufacturing methods. The calcium carbonate solids will stay suspended for several years in the concentrated 50% solids product. Once diluted to 5% solids, hydrometer testing (ASTM standard D-422 without added dispersant) shows that more than 90% of the solids will stay suspended for a 24 hour period. Solids will eventually settle out of the diluted material when it is allowed to stand without stirring.

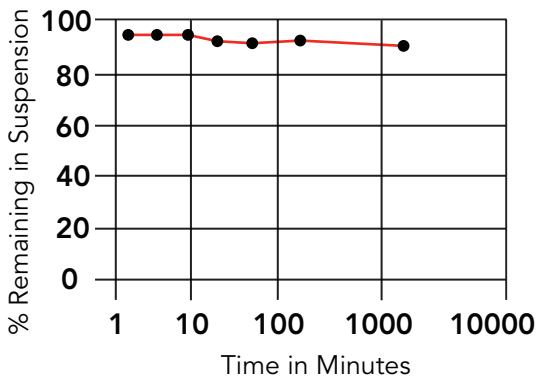
Benefits – Mobility, Retention, Minimal Permeability Loss

Laboratory columns show that concentrations of 0.5% to 10% solids move easily through clean fine sand at a ground water velocity of ~50 feet per day. This velocity is much higher than would be encountered under ambient conditions, but would commonly be created during injection. After injection the solids are retained in the treatment area – column studies show solids are retained even at simulated groundwater velocity of 8 feet per day. Minimal permeability loss was observed in solids concentrations below 5%. Field applications to date have been limited to 3% solids or less, with good injection flows and no evidence of buffer solids moving out of the treatment area after the injection is completed.

FINAL PERMEABILITY LOSS



HYDROMETER TEST



RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

www.rnasinc.com

Neutral Zone

Insoluble Solid Buffer

Product Content

Chemical Name	CAS Number	Composition
Calcium Carbonate	471-34-1	50%
Ethyl Alcohol	64-17-5	5%
Food Grade Surfactant Blend	Proprietary	<1%
Water	7732-18-5	44%

Product Characteristics

Parameter	Unit	Specification
Density	g/cm^3	1.45
Flash Point	°F	130
Appearance		Opaque White Slurry

Packaging

Neutral Zone® is available in 5-gallon pails (60 pounds net) and 55-gallon drums (600 pounds net). For large projects, ethanol-free Neutral Zone® can be shipped in totes (3,000 pounds net).

Storage

Neutral Zone® is stable for several years in chilled storage. We recommend limiting storage on site to two to four months without refrigeration prior to injection. Avoid freezing conditions. Freezing may cause permanent separation of the suspended solids.

Safety

The primary ingredient in Neutral Zone® is calcium carbonate. Stabilizing additives are food grade or non-toxic. Neutral Zone® is not toxic, corrosive, or otherwise hazardous to the environment or to those who ship, handle, or dispose of the material.

SAFETY DATA SHEET

Neutral Zone

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	***Neutral Zone***
SYNONYMS:	Buffer solution
CAS#:	Mixture
PRODUCT USE:	Neutral Zone is a colloidal calcium carbonate buffer product that consists of food grade precipitated calcium carbonate. This product is used to maintain neutral pH of our bioremediation products.
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	**RNAS Remediation Products**
ADDRESS:	6712 West River Road, Brooklyn Center, MN 55430
BUSINESS PHONE:	1-763-585-6191
EMERGENCY PHONE:	1-800-424-9300 (Chemtrec 24 Hr Service – Emergency Only)
DATE OF CURRENT REVISION:	January 16, 2016
DATE OF LAST REVISION:	July 13, 2015

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is an opaque white slurry (light) with no odor.
Health Hazards: Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact. Inhalation of vapors/sprays or mist may cause respiratory irritation. Ingestion of large amounts of this product may cause gastrointestinal irritation.
Flammability Hazards: This product is a Non-Flammable liquid.
Reactivity Hazards: None known
Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product is not anticipated to have significant adverse effects in the aquatic environment.

US DOT SYMBOLS	**CANADA (WHMIS) SYMBOLS**	GHS Hazard Symbols
Non-Hazardous Material	Complies with WHMIS 2015	**None**
		Signal Word: **None!**

GHS LABELING AND CLASSIFICATION:
This product does not meet the definition of a hazardous substance or preparation as defined by 29CFR 1910.1200 or the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:
EC# 207-439-9 This substance is not classified in the Annex VI of Directive 67/548/EEC
Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s):
All Ingredients
GHS Hazard Classification(s):
None

Hazard Statement(s):
None

Precautionary Statement(s):
None

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of mists or sprays and ingestion. The symptoms of overexposure are described below.
ACUTE:
INHALATION: Not expected to cause adverse health effects when used as intended.
CONTACT WITH SKIN: Not expected to cause adverse health effects when used as intended.
EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.
INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard.
CHRONIC: None known
TARGET ORGANS: Acute: Eyes **Chronic:** None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	GHS Hazard Classification(s)
Calcium Carbonate Food Grade	45 – 55%	471-34-1	207-439-9	Not Classified
Water	45 – 55%	7732-18-5	231-791-2	Not Classified
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

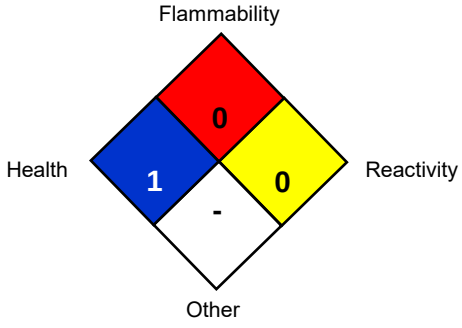
4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.
SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Non-Flammable
AUTOIGNITION TEMPERATURE: Not Applicable
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods suitable for surrounding fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known
Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: No
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	0
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Stop the flow of material, if this can be done safely. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Keep container closed when not in use. Store in a cool, dry location.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Calcium Carbonate Food Grade	471-34-1	Not Listed	Not Listed
Water	7732-18-5	Not Listed	Not Listed

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not normally required when using this product. Maintain airborne contaminant concentrations below guidelines listed above. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is an opaque white (Slurry) liquid with no odor.
ODOR: Slight
ODOR THRESHOLD: Not Available
pH: 10.0 – 10.5
MELTING/FREEZING POINT: Not Available
BOILING POINT: <99°C / <210°F @ 760 mmHg
FLASH POINT: Not Applicable
EVAPORATION RATE (n-BuAc=1): Not Available
FLAMMABILITY (SOLID, GAS): Not Applicable
UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available
VAPOR PRESSURE (mm Hg @ 20°C (68°F)): Similar to water 23 mmHg @ 25°C
VAPOR DENSITY: Not Available
SPECIFIC GRAVITY: 1.45 @25°C
SOLUBILITY IN WATER: Dispersible in water
WEIGHT PER GALLON: 12.1 lbs/gal
PARTITION COEFFICENT (n-octanol/water): Not Available
AUTO-IGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Available

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products include oxides of carbon and calcium oxide.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing materials, strong acids.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Incompatible materials.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
Calcium Carbonate CAS# 471-34-1
Oral, rat: LD50 = 6450 mg/kg
SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
IRRITANCY OF PRODUCT: No specific data available
SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer
REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
ENVIRONMENTAL STABILITY: No specific data available on this product. Does not have potential for bioaccumulation.
CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is not expected to cause significant harm to plants, animals or aquatic life.
WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.
SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.
EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:
U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME:	Non-Regulated Material
HAZARD CLASS NUMBER and DESCRIPTION:	None
UN IDENTIFICATION NUMBER:	None
PACKING GROUP:	None
DOT LABEL(S) REQUIRED:	None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None
RQ QUANTITY: None
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or Exempt from listing
Australian Inventory of Chemical Substances (AICS): Listed or Exempt from listing
Korean Existing Chemicals List (ECL): Listed or Exempt from listing
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt from listing
Philippines Inventory if Chemicals and Chemical Substances (PICCS): Listed or Exempt from listing
Swiss Giftliste List of Toxic Substances: Listed or Exempt from listing
U.S. TSCA: Listed

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation

IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Paul Eigbrett – (**GHS MSDS Compliance PLUS)**
DATE OF PRINTING: January 16, 2016

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. RNAS Remediation Products assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, RNAS Remediation Products assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET

APPENDIX D

NOTICE OF INTENT – CONTAMINATED GROUNDWATER FROM REMEDIAL ACTION OPERATIONS WPDES PERMIT – WI-0046566-07-0

State of Wisconsin
Department of Natural Resources
Bureau of Water Quality
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Notice of Intent (NOI)
Contaminated Groundwater from Remedial Action Operations
WPDES Permit No. WI-0046566-07-0
Rev. 06/2018

Notice: Pursuant to chs. NR 200 and 205, Wis. Adm. Code, this notice of intent (NOI) is required to request coverage under the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-0046566-07-0 for discharges of contaminated groundwater to waters of the state of Wisconsin. Failure to complete this form in its entirety may result in a returned NOI or a denied NOI. Personal information collected will be used for administrative purposes and may be provided to requestors to the extent required by Wisconsin Open Records law [ss. 19.31-19.39, Wis. Stats.].

SECTION I: FACILITY/PROJECT LOCATION INFORMATION			
Facility/Project Name WRR Environmental Services Co., Inc.		Facility Mailing Address (i.e. PO Box, Street, or Route) 5200 Ryder Road	
Facility/Project Physical Address (i.e. Street or Route) 5200 Ryder Road		City, State, Zip Code Eau Claire, WI 54701	
County Eau Claire	Facility Phone No. 715-834-9624	Facility Fax No. 715-836-8785	Facility Email Address
SECTION II: FACILITY CONTACT INFORMATION			
Facility Operator/Plant Manager Bob Fuller		Title CFO	
Company WRR Environmental Services Co., Inc.		Contact Mailing Address (i.e. PO Box, Street, or Route) 5200 Ryder Road	
City, State, Zip Code Eau Claire, WI, 54701		Contact Phone No. 715-852-1605	Alternative Phone No.
Contact Fax No. 715-836-8785		Contact Email Address bfuller@WRRES.com	
Discharge Monitoring Contact Name Anthony Miller		Title Sr. Environmental Scientist	
Company Gannett Fleming, Inc.		Contact Mailing Address (i.e. PO Box, Street, or Route) 8025 Excelsior Drive	
City, State, Zip Code Madison, WI, 53717		Contact Phone No. 608-836-1500 ext 6716	Alternative Phone No. 608-354-7730
Contact Fax No. 608-831-3337		Contact Email Address awmiller@gfnet.com	
Authorized Representative Name		Title	
Company		AR Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code		AR Phone No.	Alternative Phone No.
AR Fax No.		AR Email Address	

State of Wisconsin
Department of Natural Resources
Bureau of Water Quality
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Notice of Intent (NOI)
Contaminated Groundwater from Remedial Action Operations
WPDES Permit No. WI-0046566-07-0
Rev. 06/2018

SECTION III: FACILITY OWNER MAILING ADDRESS (if different from Authorized Representative)

Facility Owner Name Jim Hager	Title CEO	
Parent Company WRR Environmental Services	Owner Mailing Address (i.e. PO Box, Street, or Route) 5200 Ryder Road	
City, State, Zip Code Eau Claire, WI, 54701	Owner Phone No. 715-834-9624	Alternative Phone No.
Contact Fax No. 715-836-8785	Contact Email Address hagerjl@WRRES.com	

SECTION IV: DISCHARGE CHARACTERIZATION

Type of Wastewater (check all that apply):	**Discharge Frequency** (e.g. Annual, Monthly, Daily)	**Average Daily Flow** (gallons of water discharged per day)	**Type of Wastewater** (check all that apply):	**Discharge Frequency** (e.g. Annual, Monthly, Daily)	**Average Daily Flow** (gallons of water discharged per day)
☐ Treated wastewater from groundwater remediation project			☐ Cleaning or decontamination wastewaters from the cleaning of treatment equipment for a remediation project		
☒ Infiltration or injection of a substance or remedial material for remediation of soil or groundwater	Annual	1,500 gallons	☐ Other (describe type)		
☐ Treated wastewater from dewatering of construction trenches or pits			☐ Other (describe type)		
☐ Landspreading or spray irrigation of agricultural chemical contaminated wastewater			☐ Other (describe type)		

SECTION V: ELIGIBILITY CHECKLIST

1. Is the wastewater discharged from and/or to properties within tribal lands (i.e. land owned by or held in trust for the tribes and land within recognized reservation boundaries)?

☐ Yes. **Your discharge is not eligible for this General Permit.** *If all discharges from your facility go to or come from properties in tribal lands, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. The Tribe or United States*

Environmental Protection Agency (EPA) regulates discharges within tribal lands.

☒ No. **Proceed to question 2.**

2. Is the wastewater discharged to a Publicly Owned Treatment Works (i.e. sanitary sewer)? A septic system is not considered a sanitary sewer.

☐ Yes. **Your discharge is not eligible for this General Permit.** *If all discharges from your facility go to a sanitary sewer, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. If at some point in the future operations at your facility result in a discharge, you will need to inform the Department. If only some or no discharges from your facility go to the sanitary sewer, please proceed to question 3.*

☒ No. **Proceed to question 3.**

3. Are any of the following wastewaters discharged or mixed with the above wastewaters to surface water or groundwater: Contact or noncontact cooling water, water from boiler cleaning operations, air compressor condensate contaminated with oil and grease, softener regeneration backwash, municipal wastewater, domestic wastewater, or process wastewaters from the production of any material or product, or other wastewater not otherwise cover by this general permit?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☒ No. **Proceed to question 4.**

4. What is the receiving water for your discharge? If your facility has more than one outfall, indicate in the space provided which outfalls go to groundwater and which go to surface waters. *(check all that apply)*

☒ **Groundwater Discharge** (*any wastewater that is allowed to infiltrate or seep into the soil from a permeable surface including but not limited to any drain field, agricultural field, ditch, swale, depression, trench or pit, adsorption pond, infiltration pond, rain garden, prairie, or vegetative area that may impact groundwater quality*). **If you will only be discharging to groundwater, please proceed to question 5.**

Outfall #(s):

☐ **Wetland Discharge** (*any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry wastewater to a wetland. Wetlands mean an area where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions*). **If you will only be discharging to wetlands, please proceed to question 5.**

Outfall #(s):

Note: *The Department will need to determine if your discharge would cause significant adverse impacts to wetlands*

☐ **Surface Water Discharge** *(any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry wastewater to a creek, stream, pond, marsh, bay, reservoir, river, lake, or other surface water within the state of Wisconsin*). **Proceed to question 4A.**

Outfall #(s):

A. What is the name(s) of the surface water your discharge enters?

Proceed to question 4B.

B. What is the Water Body Identification Code (WBIC) of the surface water your discharge enters?

Proceed to question 4C.

Note: The WBIC for a specific surface water can be found at: http://dnr.wi.gov/water/waterSearch.aspx.

C. Is the discharge directly to a surface water classified as an outstanding or exceptional resource waters as defined in ch. NR 102, Wis. Adm. Code.?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☐ No. **Proceed to question 4D.**

D. Is the discharge directly to a surface water classified as a public water supply (i.e. Lake Superior, Lake Michigan and Lake Winnebago) in ch. NR 104, Wis. Adm. Code?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☐ No. **Proceed to question 5.**

5. Does the discharge contain water treatment additives (i.e. biocides such as microbicides, fungicides, molluscicdes, chlorine, etc.) or water quality conditioners (i.e. scale and corrosion inhibitors, pH adjustment chemicals, oxygen scavengers, conditioning agents, water softening compounds, etc.) that may enter surface water or groundwater without receiving wastewater treatment or that are used in a treatment process but are not expected to be removed by wastewater treatment?

☐ Yes. **For each additive used, please fill out and attach an Additive Review Worksheet.** *Additive Review Worksheets must be completed to receive coverage under this general permit. The Additive Review Worksheet is not required for additives with active ingredients consisting of chlorine, hypochlorite, sulfuric acid, hydrochloric acid or sodium hydroxide. Also, chemicals used in an industrial process generating wastewater that eventually receives treatment or chemicals added as part of wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an additive review.* **Proceed to question 6.**

☒ No. **Proceed to question 6.**

6. Will chlorine-based compounds be used to control the growth of micro-organisms in the treatment system or used to decontaminate the treatment system after completion of the remediation project?

☐ Yes. **Proceed to question 6A.**

☒ No. **Proceed to question 7.**

A. Will chemicals be used to dechlorinate the wastewater prior to discharge to surface water?

☐ Yes. **The wastewater will be dechlorinated with chemicals. Proceed to question 7.**

☐ No. **The wastewater will not be dechlorinated with chemicals. Proceed to question 7.**

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7. Is a discharge management plan attached to this NOI that includes all the information necessary from Section 3 of the permit?

☒ Yes. **Proceed to question 8.**

☐ No. **This form will be considered incomplete and returned to you.**

8. Has the groundwater at the site been analyzed for contaminants and are the results attach to the discharge management plan?

☒ Yes. **Proceed to question 9.**

☐ No. **This form will be considered incomplete and returned to you.**

9. If a treatment facility is required for the treatment of contaminated groundwater, have the plans and specifications been submitted to or approved by the department under s. 281.41, Wis. Stats., and ch. NR 108, Wis. Adm. Code?

☐ Yes. **Proceed to Section VI.**

☐ No. **Please contact wastewater plan review staff to find out how to get the plans approved. Proceed to Section VI.**

Note: Department wastewater plan review staff can be found here: http://dnr.wi.gov/topic/wastewater/planreviewers.html.

Additionally, department plan submittal requirements can be found here: http://dnr.wi.gov/topic/wastewater/AdequateSubmittal.html.

SECTION VI: CERTIFICATION

This form must be signed by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2., Wis. Adm. Code. To delegate signatory authority to a duly authorized representative, please submit a Delegation of Signature Authority (DSA) form (Form 3400-220).

I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Name	Title
JAMES L HAGER	PRESIDENT /CEO
Authorized Representative Signature	Date Signed
James L Hager	9/28/2018
Submitter Name (If different from Authorized Representative) Anthony W. Miller	Title Senior Environmental Scientist – Gannett Fleming, Inc.
Submitter Signature Anthony W. Miller	Date Signed 10/2/18

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Please print and sign this certification page. Scan and email the completed form, certification page and any other supporting information to the department regional general permit reviewer at least thirty (30) business days before the expected start date of discharge. A listing of the general permit reviewers for each region with mailing addresses and phone numbers can be found at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html. Please scroll to the "How to Apply" section and click the department region that the discharge is located in.