Gannett Fleming

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December 19, 2018
File # 55929.005

Ms. Mae Willkom, Hydrogeologist
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: **Results of October 2018 Supplemental Geoprobe Investigation**
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 weeks of October 15 and 22, 2018, Gannett Fleming, Inc. (GF) collected soil and groundwater samples from five Geoprobe borings, GP-91 through GP-95, at the WRR Environmental Services site in Eau Claire, Wisconsin. Figure 1 shows the locations of borings GP-91 through GP-95, along with other borings previously sampled in the southeastern portion of the WRR property by the E-II Warehouse Dock.

The samples were collected to better define the extent of chlorinated volatile organic compounds (CVOCs) located in the soil and groundwater in the E-II Warehouse Dock area. Soil samples were collected continuously in each of the borings until the water table was encountered. GF field-screened soil samples from each of the borings in 2-foot intervals for total VOC and methane concentrations using a Foxboro 128 flame-ionization detector (FID). Two soil samples from each boring collected above the water table, including the sample with the highest FID reading, were submitted for laboratory analysis of VOCs.

Shallow groundwater samples were collected in each of the borings from the upper 4 feet below the water table. Deeper groundwater samples were also collected from borings GP-92, GP-93, and GP-95 approximately 6 to 10 feet below the water table surface. Each boring was abandoned

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following the collection of the groundwater samples. Appendix A includes the boring logs and abandonment forms.

Monitoring well W-35 was installed on October 23rd next to the E-II Warehouse to monitor trends in VOC concentrations in the E-II Dock area groundwater over time. In addition to the groundwater samples collected from GP-91 through GP-95, samples were also collected from monitoring point MP-1, wells W-7 and W-7A, and after it was developed, W-35. The monitoring well construction and development forms for W-35 are included in Appendix A.

All samples were collected using standard protocols described in previous Gannett Fleming reports. All drilling activities were conducted by Stevens Drilling and Environmental Inc. of Maple Plain, Minnesota. All soil and groundwater samples were submitted to ALS Laboratory of Holland, Michigan, for analyses of VOCs. A discussion of the analytical results follows.

Soil Sample Results

Total VOC readings in the field-screened soil samples ranged from 0 parts per million (ppm) to 10.2 ppm, of which up to 2 ppm was methane. The highest methane reading of 2.0 ppm was measured in the sample collected from 12 to 14 feet below the ground surface (ft bgs), just above the water table, in GP-95. The total VOC and methane FID readings are listed on the boring logs included in Appendix A.

Table 1 presents a summary of the compounds detected in the soil samples collected in October 2018. Figure 1 shows all boring locations in the E-II Dock area since September 2013 and includes the concentrations of VOCs that exceeded the NR 720 soil to groundwater ingestion pathway residual contaminant level (groundwater pathway RCL). With minor exceptions, CVOCs were the only compounds measured in the soil samples collected in the southeastern portion of the site at concentrations above the NR 720 groundwater pathway RCLs. Tetrachloroethene (PCE) was the most prevalent CVOC detected in the soil; PCE was present at concentrations above its NR 720 groundwater pathway RCL of 4.5 micrograms per kilogram (µg/kg) in most of the shallow samples collected above 4.0 ft bgs in the E-II Dock area. PCE concentrations ranging from 280 to 670 µg/kg were measured in the soil samples collected from 0.5 to 4.0 ft bgs in borings GP-91, GP-93, GP-94, and GP-95. PCE was also measured within the E-II Dock area at concentrations above its NR 720 groundwater pathway RCL in shallow soil samples collected from borings GP-28 through GP-30, GP-55, GP-57, and GP-58 in September 2013; boring GP-66 in November 2013;

and borings GP-80 through GP-82 in September 2016. See Figure 1 for boring locations and PCE concentrations measured in the soil samples in the E-II Dock area.

Other CVOCs (cis-1,2-dichloroethlyene [DCE], methylene chloride, 1,1,1- and 1,1,2-trichloroethane [TCA]), and/or trichloroethylene (TCE) were measured above their NR 720 groundwater pathway RCLs in soil samples collected from GP-29, GP-30, GP-55, GP-58, GP-66, GP-92, and GP-94. Figure 1 shows the boring locations and CVOC concentrations measured in each sample.

Ketones (acetone, methyl ethyl ketone, methyl isobutyl ketone) and petroleum-related compounds (ethylbenzene, naphthalene, trimethylbenzene and xylene) were also measured at concentrations above their NR 720 groundwater pathway RCLs in soil samples collected from borings GP-55, GP-58, GP-66, and GP-94 located east and north of the E-II Dock area and the aboveground tanks (AST) located north of the Warehouse. See Figure 1 for boring locations, sample depths, and VOC concentrations measured in each soil sample.

With the minor exceptions noted below, soil samples collected below 4.0 ft bgs did not contain any compounds at concentrations above the groundwater pathway RCL. The soil sample collected from 4.0 to 6.0 ft bgs in GP-92 contained 15 µg/kg of methylene chloride (MC), above its groundwater pathway RCL of 2.6 µg/kg. Additionally, the soil sample collected from 8.0 to 10.0 ft bgs in GP-92 contained 150 µg/kg of PCE, above its groundwater pathway RCL of 4.5 µg/kg. Based on the results of soil samples collected from borings GP-91 through GP-95 and previous borings within the E-II Dock area, the extent of soil below a depth of 4 feet with one or more VOCs at concentrations above the NR 720 groundwater pathway RCLs is confined to the area within 20 feet of the ASTs located north of the E-II Warehouse, as shown on Figure 1. Copies of the laboratory report for the soil samples collected in October 2018 are included with this report as Appendix B.

Groundwater Sample Results

Table 2 presents a summary of the compounds detected in the groundwater samples collected from GP-91 through GP-95, MP-1, and wells W-7, W-7A, and W-35 in October 2018. Figure 2 shows the locations of all borings sampled in the E-II dock area since September 2013 and the wells listed above. Also included on Figure 2 are the VOC concentrations exceeding the NR 140 Enforcement Standard (NR 140 ES) measured in groundwater samples collected from the borings,

monitoring point, and most recent samples from the wells listed above. All groundwater samples were collected from the shallow aquifer between 12 and 26 ft bgs.

As shown in Table 2, one or more VOCs were measured at concentrations above their NR 140 ESs in all five of the groundwater samples collected at the water table surface from borings GP-91 through GP-95 and in the three deeper samples collected from borings GP-92, GP-93, and GP-95. As with the soil samples, PCE was the most prevalent VOC detected in the groundwater samples collected from the Geoprobe borings and wells in October 2018. PCE was detected above its NR 140 ES of 5.0 µg/L in all eight groundwater samples collected from the Geoprobe borings at concentrations ranging from 41 µg/L (GP-93 D) to 800 µg/L (GP-92 S). The highest PCE concentration in the groundwater samples collected in the E-II Dock area was 1,900 µg/L measured in MP-1. Not surprisingly, higher concentrations of PCE were measured in the groundwater samples collected from borings GP-92, GP-93, and GP-95 at the water table surface than the deeper groundwater samples from those borings. See Table 2 for specific concentrations measured in each sample.

Other VOCs measured in groundwater samples collected in the E-II Dock area in October 2018 at concentrations above their NR 140 ES were:

- Chloroform at 6.9 µg/L in MP-1, slightly above its NR 140 ES of 6.0 µg/L.
- Cis-1,2-DCE at concentrations up to 340 µg/L in MP-1 and W-35, above its NR 140 ES of 70 µg/L.
- 1,1-DCE at concentrations up to 12 µg/L in MP-1 and W-35, above its NR 140 ES of 7 µg/L.
- Methyl tert-butyl ether at 150 µg/L in W-7A, above its NR 140 ES of 60 µg/L.
- 1,1,1-TCA at concentrations up to 300 µg/L in MP-1 and W-35, above its NR 140 ES of 200 µg/L.
- 1,1,2-TCA at concentrations up to 21 µg/L in GP-92S, GP-94S, and MP-1, above its NR 140 ES of 5.0 µg/L.
- TCE at concentrations up to 260 µg/L in GP-92S, MP-1, and W-35, above its NR 140 ES of 5.0 µg/L.

Although other VOCs were detected in the groundwater samples collected in the E-II Dock area in October 2018, none were above the applicable NR 140 ESs. See Table 2 for the concentrations

of each compound measured in each sample. The laboratory reports for the groundwater samples collected in October 2018 are included in Appendix B.

On Figure 2, VOCs detected in MP-1 above the applicable NR 140 ESs are shown for the most recent sample collected in October 2018 and for the previous sample collected in September 2016.

Conclusions and Recommendations

Soil

PCE at concentrations above its NR 720 groundwater ingestion pathway RCL for soil and its NR 140 ES for groundwater were present in all five borings (GP-91 through GP-95), primarily in the shallow soil samples collected from 0.5 to 4.0 ft bgs and in the groundwater samples collected from 12 to 26 ft bgs. Based on results from this investigation and previous investigations conducted east of the Dock E-II area, PCE contamination in the soil does not appear to be vertically continuous from the ground surface to the water table in most of the E-II Dock area and may have been the result of relatively small surficial spills.

The results of the soil sample collected from GP-94 at 0.5 to 2.0 ft bgs indicate that a localized spill of CVOCs and petroleum-based compounds impacted the shallow soil in that area. However, the absence of petroleum compounds in the GP-94 soil samples collected between 4 and 14 ft bgs, and in the shallow groundwater sample collected from GP-94, indicates that the petroleum compounds impacting the shallow soil in that area have not migrated to and impacted the shallow groundwater table. That is likely due to the asphalt pavement, which limits the downward migration of VOCs in the soil.

As shown on Figure 1, the area where soil with one or more VOCs at concentrations above the NR 720 groundwater pathway RCL extends from the ground surface to the water table is located near the ASTs located north of the E-II Warehouse. The soil in this area is being remediated by the operation of RW-10, which is located north of the AST basin north of the E-II Warehouse. RW-10 is a dual-phased groundwater and soil vapor extraction well and is vented with RW-11 using the same blower. RW-11 is located approximately 200 feet west of the E-II Warehouse, as shown on Figure 3. RW-10 and RW-11 began venting in September and July 2016, respectively, and through September 2018 they have removed over 4,840 lbs of VOCs from the soil, of which over 210 lbs was PCE. GF recommends continued operation of the SVE blower connected to RW-

10 to remove VOCs from the soil below the AST basin area north and east of the E-II Warehouse and Dock area.

Groundwater

Of the compounds detected in the groundwater in the E-II Dock area, only TCE and PCE were measured at concentrations one order of magnitude above their NR 140 ES of 5 μg/L (in each of the shallow samples collected from GP-91 through GP-95, GP-92D, GP-95D, MP-1, and W-35). PCE was the only VOC measured in the groundwater samples collected in October 2018 at two orders of magnitude above its ES (in GP-92S and MP-1). Figure 2 shows the estimated extent of VOCs present in the groundwater at concentrations one and two orders of magnitude more than their NR 140 ESs based on the results of groundwater samples collected from September 2013 through October 2018.

Though the general groundwater flow in this area of Eau Claire is to the west toward Lowes Creek, the groundwater in the southern portion of the WRR site flows radially outward from the adsorption pond located southeast of the facility. The absorption pond receives approximately 22,400 gallons of water per day from the aeration reservoir, which creates mounding of the water table in the discharge area. The mounding of the water table causes some of the groundwater beneath the southern portion of the WRR to flow to the east and likely accounts for the relatively low levels of PCE measured in the perimeter borings and wells east and south of the E-II Warehouse Dock area. This phenomenon is shown on Figure 5 included with GF's June 2014 *Evaluation of Corrective Measures & Plan of Activities Report*, and a copy of that figure is included as Appendix C to this report. Figure 5 in Appendix C was created using groundwater elevations measured in October 2013. Since then recovery wells RW-10 through RW-13 have been installed and begun operating, which may have changed the localized groundwater flow direction in the southeastern area of the site.

VOC concentrations measured in MP-1 in October 2018 were generally one order of magnitude less than the concentrations measured in September 2016. The reduction in VOC concentrations observed in MP-1 is likely due to the removal of VOCs from the soil and groundwater by the operation of RW-10. Since it began operating in July 2014, RW-10 has removed over 3.4 million gallons of groundwater containing 4,300 lbs. of VOCs. GF plans to evaluate the current operation of RW-10 and determine what additional activities are necessary to remediate the soil and groundwater in the southeastern portion of the site outside its radius of influence. If appropriate,

a work plan for additional remedial activities will be sent to the WDNR for review and approval prior to being implemented. In the meantime, please let me know if you have any questions or need additional information.

Sincerely,

GANNETT FLEMING, INC.

Chelsea J. Payne
Project Geologist

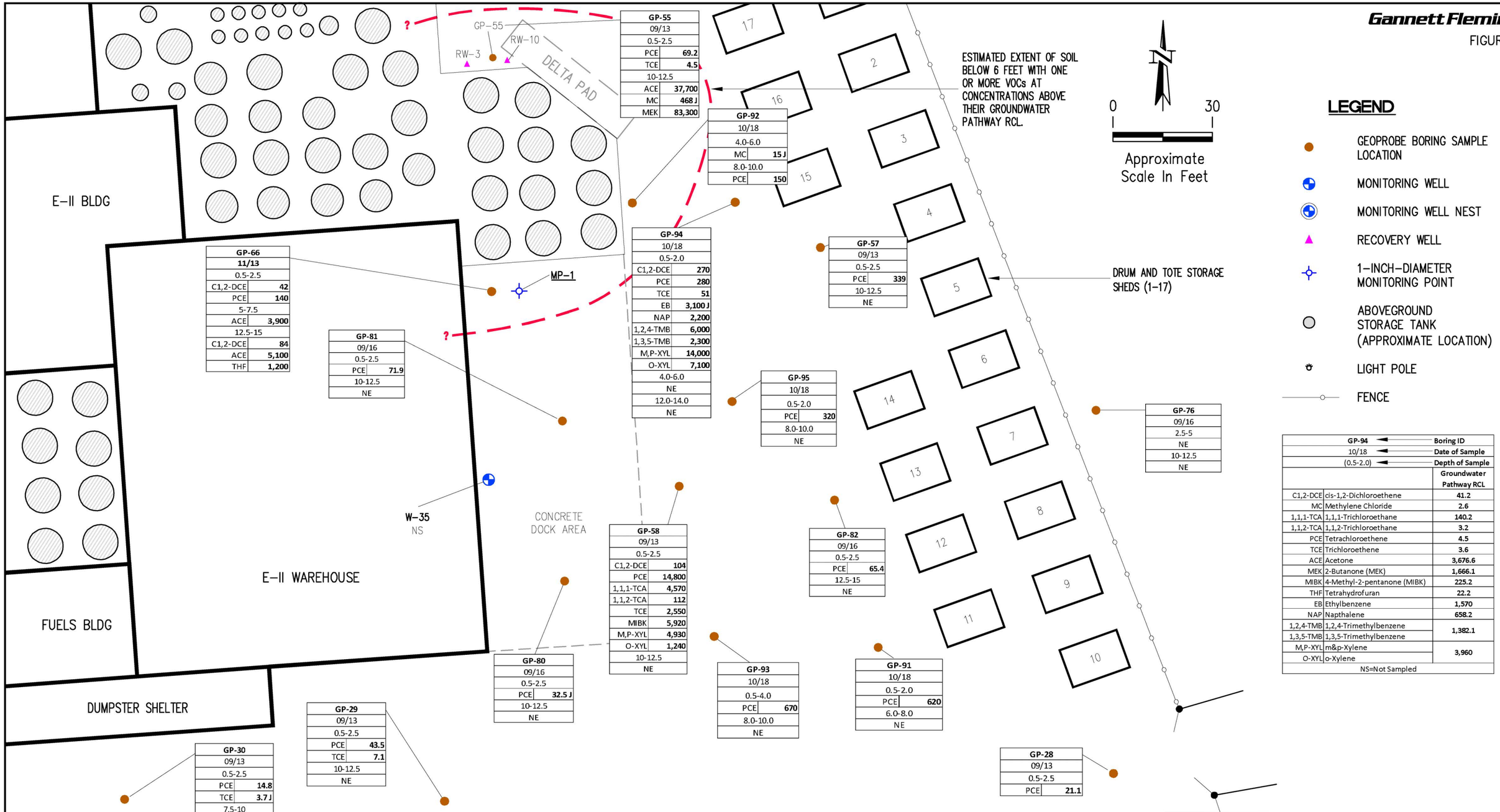
Anthony W. Miller, P.S.S.
Senior Environmental Scientist

CJP/AWM/jec
Enc.

ecc: Jim Hager, Bob Fuller, Becky Anderson (WRR)

Gannett Fleming

FIGURE 1



LEGEND

- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- RECOVERY WELL
- 1-INCH-DIAMETER MONITORING POINT
- ABOVEGROUND STORAGE TANK (APPROXIMATE LOCATION)
- LIGHT POLE
- FENCE

GP-94 ← Boring ID
10/18 ← Date of Sample
(0.5-2.0) ← Depth of Sample

		Groundwater Pathway RCL
C1,2-DCE	cis-1,2-Dichloroethene	41.2
MC	Methylene Chloride	2.6
1,1,1-TCA	1,1,1-Trichloroethane	140.2
1,1,2-TCA	1,1,2-Trichloroethane	3.2
PCE	Tetrachloroethene	4.5
TCE	Trichloroethene	3.6
ACE	Acetone	3,676.6
MEK	2-Butanone (MEK)	1,666.1
MIBK	4-Methyl-2-pentanone (MIBK)	225.2
THF	Tetrahydrofuran	22.2
EB	Ethylbenzene	1,570
NAP	Napthalene	658.2
1,2,4-TMB	1,2,4-Trimethylbenzene	1,382.1
1,3,5-TMB	1,3,5-Trimethylbenzene	
M,P-XYL	m&p-Xylene	3,960
O-XYL	o-Xylene	

NS=Not Sampled

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. THE LOCATIONS OF SITE FEATURES AND STORAGE TANKS ARE APPROXIMATE.
3. ONLY COMPOUNDS AT OR ABOVE THE SOIL TO GROUNDWATER INGESTION PATHWAY RCL ARE SHOWN ON THIS FIGURE.
4. ALL CONCENTRATIONS ARE IN µg/kg.
5. NE=NO NR 720 RCL EXCEEDANCES
6. BORINGS GP-28 THROUGH GP-58 WERE SAMPLED IN SEPTEMBER 2013.
   BORINGS GP-59 THROUGH GP-66 WERE SAMPLED IN NOVEMBER 2013.
   BORINGS GP-71 THROUGH GP-85 WERE SAMPLED IN SEPTEMBER 2016.
   BORINGS GP-91 THROUGH GP-95 WERE SAMPLED IN OCTOBER 2018.

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SOIL SAMPLE LOCATIONS AND VOC CONCENTRATIONS

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

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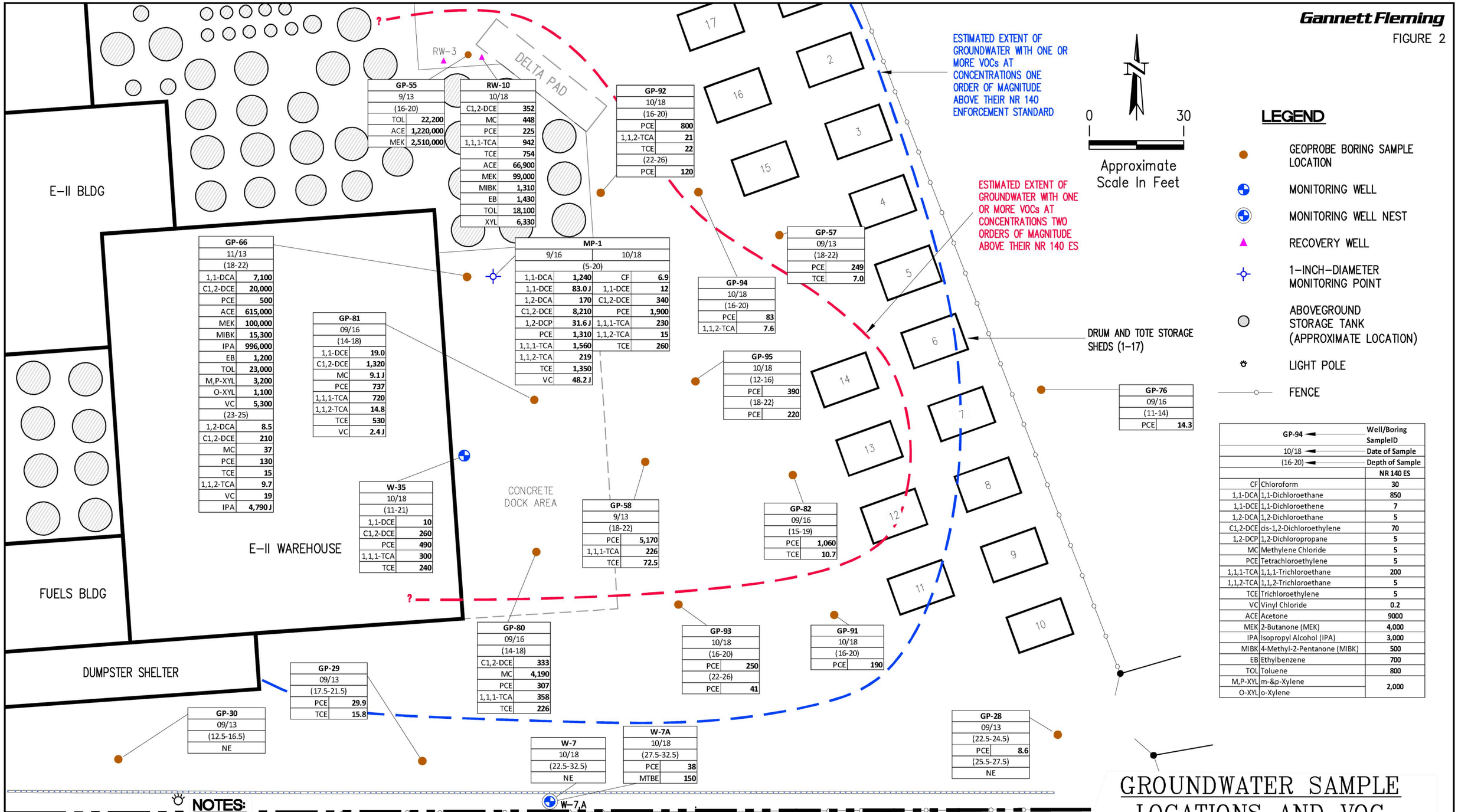
FIGURE 2



GP-55	
9/13	
(16-20)	
TOL	22,200
ACE	1,220,000
MEK	2,510,000

RW-10	
10/18	
C1,2-DCE	352
MC	448
PCE	225
1,1,1-TCA	942
TCE	754
ACE	66,900
MEK	99,000
MIBK	1,310
EB	1,430
TOL	18,100
XYL	6,330

GP-92	
10/18	
(16-20)	
PCE	800
1,1,2-TCA	21
TCE	22
(22-26)	
PCE	120

GP-66	
11/13	
(18-22)	
1,1-DCA	7,100
C1,2-DCE	20,000
PCE	500
ACE	615,000
MEK	100,000
MIBK	15,300
IPA	996,000
EB	1,200
TOL	23,000
M,P-XYL	3,200
O-XYL	1,100
VC	5,300
(23-25)	
1,2-DCA	8.5
C1,2-DCE	210
MC	37
PCE	130
TCE	15
1,1,2-TCA	9.7
VC	19
IPA	4,790 J

MP-1			
9/16		10/18	
(5-20)			
1,1-DCA	1,240	CF	6.9
1,1-DCE	83.0 J	1,1-DCE	12
1,2-DCA	170	C1,2-DCE	340
C1,2-DCE	8,210	PCE	1,900
1,2-DCP	31.6 J	1,1,1-TCA	230
PCE	1,310	1,1,2-TCA	15
1,1,1-TCA	1,560	TCE	260
1,1,2-TCA	219		
TCE	1,350		
VC	48.2 J		

GP-57	
09/13	
(18-22)	
PCE	249
TCE	7.0

GP-94	
10/18	
(16-20)	
PCE	83
1,1,2-TCA	7.6

GP-81	
09/16	
(14-18)	
1,1-DCE	19.0
C1,2-DCE	1,320
MC	9.1 J
PCE	737
1,1,1-TCA	720
1,1,2-TCA	14.8
TCE	530
VC	2.4 J

GP-95	
10/18	
(12-16)	
PCE	390
(18-22)	
PCE	220

GP-76	
09/16	
(11-14)	
PCE	14.3

W-35	
10/18	
(11-21)	
1,1-DCE	10
C1,2-DCE	260
PCE	490
1,1,1-TCA	300
TCE	240

GP-58	
9/13	
(18-22)	
PCE	5,170
1,1,1-TCA	226
TCE	72.5

GP-82	
09/16	
(15-19)	
PCE	1,060
TCE	10.7

GP-80	
09/16	
(14-18)	
C1,2-DCE	333
MC	4,190
PCE	307
1,1,1-TCA	358
TCE	226

GP-93	
10/18	
(16-20)	
PCE	250
(22-26)	
PCE	41

GP-91	
10/18	
(16-20)	
PCE	190

GP-29	
09/13	
(17.5-21.5)	
PCE	29.9
TCE	15.8

GP-30
09/13
(12.5-16.5)
NE

W-7
10/18
(22.5-32.5)
NE

W-7A	
10/18	
(27.5-32.5)	
PCE	38
MTBE	150

GP-28	
09/13	
(22.5-24.5)	
PCE	8.6
(25.5-27.5)	
NE	

LEGEND

- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- RECOVERY WELL
- 1-INCH-DIAMETER MONITORING POINT
- ABOVEGROUND STORAGE TANK (APPROXIMATE LOCATION)
- LIGHT POLE
- FENCE

GP-94 ← Well/Boring SampleID
10/18 ← Date of Sample
(16-20) ← Depth of Sample

		NR 140 ES
CF	Chloroform	30
1,1-DCA	1,1-Dichloroethane	850
1,1-DCE	1,1-Dichloroethene	7
1,2-DCA	1,2-Dichloroethane	5
C1,2-DCE	cis-1,2-Dichloroethylene	70
1,2-DCP	1,2-Dichloropropane	5
MC	Methylene Chloride	5
PCE	Tetrachloroethylene	5
1,1,1-TCA	1,1,1-Trichloroethane	200
1,1,2-TCA	1,1,2-Trichloroethane	5
TCE	Trichloroethylene	5
VC	Vinyl Chloride	0.2
ACE	Acetone	9000
MEK	2-Butanone (MEK)	4,000
IPA	Isopropyl Alcohol (IPA)	3,000
MIBK	4-Methyl-2-Pentanone (MIBK)	500
EB	Ethylbenzene	700
TOL	Toluene	800
M,P-XYL	m-&p-Xylene	2,000
O-XYL	o-Xylene	

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. THE LOCATIONS OF SITE FEATURES AND STORAGE TANKS ARE APPROXIMATE.
3. ONLY COMPOUNDS ABOVE THE NR 140 ES ARE SHOWN ON THIS FIGURE.
4. ALL CONCENTRATIONS ARE IN µg/L.
5. NE=NO NR 140 ES EXCEEDANCES.
6. BORINGS GP-28 THROUGH GP-58 WERE SAMPLED IN SEPTEMBER 2013.
   BORINGS GP-59 THROUGH GP-66 WERE SAMPLED IN NOVEMBER 2013.
   BORINGS GP-71 THROUGH GP-85 WERE SAMPLED IN SEPTEMBER 2016.
   BORINGS GP-91 THROUGH GP-95 WERE SAMPLED IN OCTOBER 2018.

GROUNDWATER SAMPLE LOCATIONS AND VOC CONCENTRATIONS

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

120618
awm_R55929-005_2018_10GP_F02

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FIGURE 3

0 80

Approximate Scale In Feet

NORTHWEST ENTERPRISES, INC.

SCALE

STATE HIGHWAY "93"

#2 #3 #5 #4 #6 #1

OFFICE

E-I BUILDING

NORTHERN AI/SVE SYSTEM

BULK LOADING AND UNLOADING AREA CANOPY

DRUM AND TOTE STORAGE SHEDS (1-17)

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)

RESCO BUILDING

DUMPSTER SHELTER

OVERHEAD POWER LINES

GP-59 GP-90 GP-79 GP-88 GP-87 GP-89 GP-45 GP-86 GP-60 GP-78 DW-1 GP-77 W-32 W-34 W-3,A,B W-2,A,B GP-44 GP-46 GP-49 SVE-4 GP-47 GP-83 GP-48 GP-61 RW-2 GP-43 GP-50 RW-1 GP-62 GP-54 W-8 (SVE WELL) RW-5 GP-52 GP-56 W-33 GP-72 RW-4 GP-53 GP-71 GP-51 RW-3 GP-55 RW-10 W-28 GP-63 GP-42 SVE-5 GP-92 GP-94 GP-84 GP-41 GP-69 GP-73 W-6 PW-1 GP-65 GP-57 GP-34 GP-74 GP-64 GP-68 MP-1 GP-66 GP-76 GP-95 GP-33 GP-75 W-31A,B GP-36 GP-81 GP-37 RW-12 GP-82 GP-58 RW-11 TW-1 GP-40 GP-32 W-35 GP-67 GP-38 GP-80 RW-8 GP-85 GP-39 GP-93 GP-91 W-25 RW-13 GP-31 W-24 W-1A GP-35 W-5 GP-30 GP-29 W-7,A GP-28 W-4 GP-70 W-19 W-19R W-1 W-1D W-23 RW-9 RW-6

LEGEND

- GEOPROBE BORING SAMPLE LOCATION
- MONITORING WELL
- MONITORING WELL NEST
- 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
- #2 SOLID WASTE MANAGEMENT UNITS

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. BORINGS GP-91 THROUGH GP-95 WERE SAMPLED IN OCTOBER 2018.

BORING AND WELL LOCATIONS

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

120618
awm_R55929-005_2018_10GP_F03

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

TABLE 1

ANALYTICAL RESULTS OF SOIL SAMPLES (OCTOBER 2018)
SUMMARY OF DETECTED COMPOUNDS (µg/kg)

Parameter	Boring ID & Depth (ft bgs)				Industrial Direct Contact RCL	Groundwater Pathway RCL
	GP-91		GP-92			
	0.5-2.0	6.0-8.0	4.0-6.0	8.0-10.0		
Chlorinated Compounds						
Methylene chloride	<17	<15	**15 J**	<15	1,150,000	**2.6**
Tetrachloroethene	**620**	<16	<16	**150**	145,000	**4.5**
Petroleum-Based Compounds						
m,p-Xylene	22 J	<15	<15	21 J	260,000	**3,960**
o-Xylene	14 J	<10	<11	15 J		
FID Reading ([w/ char]/[w/o char])	2.8/0.6	0.8/0.2	3.8/0	1.8/1.8		

TABLE 1

ANALYTICAL RESULTS OF SOIL SAMPLES (OCTOBER 2018)
SUMMARY OF DETECTED COMPOUNDS (µg/kg)

Parameter	Boring ID & Depth (ft bgs)					Industrial Direct Contact RCL	Ground-water Pathway RCL
	GP-93		GP-94				
	0.5-4.0[(1)]	8.0-10.0	0.5-2.0	4.0-6.0	12.0-14.0		
Chlorinated Compounds							
1,1-Dichloroethane	<8.3	<8.3	33	<8.2	<9.3	22,200	**483.4**
cis-1,2-Dichloroethene	<9.2	<9.2	**270**	<9.1	<10	2,340,000	**41.2**
trans-1,2-Dichloroethene	<9.2	<9.2	16 J	<9.1	<10	1,850,000	**62.6**
1,2-Dichlorobenzene	<9.7	<9.7	77	<9.5	<11	376,000	**1,168**
Tetrachloroethene	**670**	<16	**280**	<16	<18	145,000	**4.5**
Trichloroethene	<8.7	<8.7	**51**	<8.6	<9.8	8,410	**3.6**
Alcohols and Ketones							
Acetone	<59	<59	67 J	<58	<66	100,000,000	**3,676.6**
Petroleum-Based Compounds							
sec-Butylbenzene	<13	<13	220	<13	<15	145,000	NSE
Ethylbenzene	<7.6	<7.6	**3,100 J**	<7.5	<8.5	35,400	**1,570**
Isopropylbenzene (Cumene)	<13	<13	250	<13	<14	268,000	NSE
p-Isopropyltoluene	<13	<12	340	<12	<14	162,000	NSE
Naphthalene	<5.6	<5.6	**2,200**	<5.5	<6.3	24,100	**658.2**
n-Propylbenzene	<10	<10	430	<10	<12	264,000	NSE
Toluene	<11	<11	170	<11	<12	818,000	**1,107.2**
1,2,4-Trimethylbenzene	<6.6	<6.5	**6,000**	<6.4	<7.4	219,000	**1,378.7**
1,3,5-Trimethylbenzene	<14	<14	**2,300**	<14	<16	182,000	
m,p-Xylene	<15	<15	**14,000**	<14	<16	260,000	**3,960**
o-Xylene	<11	<11	**7,100**	<10	<12		
FID Reading ([w/o char]/[w/ char])	10/0.6, 4.4/0[(2)]	1.8/0	10.2/0.2	5.4/0	4.4/0.5		

TABLE 1

ANALYTICAL RESULTS OF SOIL SAMPLES (OCTOBER 2018)
SUMMARY OF DETECTED COMPOUNDS (µg/kg)

Parameter	Boring ID & Depth (ft bgs)		Industrial Direct Contact RCL	Ground-water Pathway RCL
	GP-95			
	0.5-2.0	8.0-10.0		
Chlorinated Compounds				
Tetrachloroethene	**320**	<15	145,000	**4.5**
FID Reading ([w/o char]/[w/ char])	0/0	0/0		

FOOTNOTES:

(1) Due to poor recovery and possible collection of some asphalt in the GP-93 0-4 ft core, the sample "0.5-4.0 ft bgs" is a composite of the 0.5-2.0 feet below ground surface (ft bgs) and 2.0-4.0 ft bgs sample.

(2) The FID readings for GP-93 samples collected from 0.5-2.0 ft bgs and 2.0-4.0 ft bgs, respectively, are shown.

NOTES:

All soil samples were collected in October 2018 and analyzed by ALS Laboratory of Holland, MI.

All concentrations are in micrograms per kilogram (µg/kg) or parts per billion (ppb) and were calculated on a dry weight basis.

Only compounds detected in one or more of the soil samples collected in October 2018 are listed on this table.

Detected compound concentrations are highlighted in yellow.

Concentrations above the Groundwater Pathway RCL are in bold.

NSE = No standard established

RCL = Residual contaminant level

J = Flag by laboratory indicating analyte is present at an estimated concentration between the Method Detection Limit and Report Limit.

Flame-ionization detector (FID) readings are in parts per million (ppm). Readings were taken without charcoal (w/o char) and with charcoal (w/ char).

The industrial direct-contact and groundwater pathway RCLs were taken from the WDNR's RCL Spreadsheet – updated June 2018 - http://dnr.wi.gov/topic/Brownfields/professionals.html#tabx2. The groundwater pathway RCL was calculated using a dilution attenuation factor of 2.

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

TABLE 2

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
COLLECTED IN SOUTHEASTERN AREA OF FACILIITY
OCTOBER 2018
SUMMARY OF DETECTED COMPOUNDS (µg/ℓ)

Parameter	Sample ID and Depth Collected (ft)				NR 140 PAL	NR 140 ES
	GP-91 S	GP-92 S	GP-92 D	GP-93 S		
	16-20	16-20	22-26	16-20		
Chlorinated Compounds						
1,1-Dichloroethane	<0.31	5.6	0.59 J	<0.31	85	**850**
1,1-Dichloroethene	<0.28	0.52 J	<0.28	<0.28	0.7	**7**
cis-1,2-Dichloroethene	<0.25	53	5.5	<0.25	7.0	**70**
trans-1,2-Dichloroethene	<0.28	0.83 J	<0.28	<0.28	20	**100**
1,3-Dichlorobenzene	<0.29	0.31 J	<0.29	<0.29	120	**600**
1,1,1-Trichloroethane	2.7	16	1.8	4.3	40	**200**
1,1,2-Trichloroethane	<0.40	**21**	2.8	<0.40	0.5	**5**
Tetrachloroethene	**190**	**800**	**120**	**250**	0.5	**5**
Trichloroethene	0.70 J	**22**	2.8	2.3	0.5	**5**
Ketones						
Acetone	8.0	12	15	5.4	1,800	**9,000**
2-Butanone (MEK)	7.3	8.6	8.7	4.2	800	**4,000**
Petroleum Compounds						
Methyl tert-butyl ether	<0.12	0.31 J	<0.12	12	12	**60**

TABLE 2

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
COLLECTED IN SOUTHEASTERN AREA OF FACILIITY
OCTOBER 2018
SUMMARY OF DETECTED COMPOUNDS (µg/ℓ)

Parameter	Sample ID and Depth Collected (ft)				NR 140 PAL	NR 140 ES
	GP-93 D	GP-94 S	GP-95 S	GP-95 D		
	22-26	16-20	12-16	18-22		
Chlorinated Compounds						
1,1-Dichloroethane	<0.31	0.67 J	<0.31	<0.31	85	**850**
cis-1,2-Dichloroethene	<0.25	8.9	1.6	0.34 J	7.0	**70**
1,3-Dichlorobenzene	<0.29	<0.29	0.33 J	<0.29	120	**600**
1,1,1-Trichloroethane	<0.36	1.2	3.2	1.6	40	**200**
1,1,2-Trichloroethane	<0.40	**7.6**	0.45 J	<0.40	0.5	**5**
Tetrachloroethene	**41**	**83**	**390**	**220**	0.5	**5**
Trichloroethene	<0.30	3.9	3.7	1.6	0.5	**5**
Ketones						
Acetone	4.9	4.7	5.3	4.0	1,800	**9,000**
2-Butanone (MEK)	4.1	<0.58	7.8	3.2	800	**4,000**
Petroleum Compounds						
Methyl tert-butyl ether	1.6	<0.12	<0.12	<0.12	12	**60**

Parameter	Sample ID and Depth Collected (ft)				NR 140 PAL	NR 140 ES
	MP-1	W-7	W-7A	W-35		
	5-20	22.5-32.5	27.5-32.5	11-21		
Chlorinated Compounds						
Chlorobenzene	0.66 J	<0.27	<0.27	<2.7	NSE	NSE
Chloroform	**6.9**	<0.26	<0.26	<2.6	0.6	**6**
Chloromethane	<0.17	<0.17	<0.17	11	3	**30**
1,1-Dichloroethane	95	<0.31	<0.31	43	85	**850**
1,1-Dichloroethene	**12**	<0.28	<0.28	**10**	0.7	**7**
1,2-Dichloroethane	2.7	<0.17	<0.17	<1.7	0.5	**5**
cis-1,2-Dichloroethene	**340**	<0.25	<0.25	**260**	7.0	**70**
trans-1,2-Dichloroethene	4.0	<0.28	<0.28	<2.8	20	**100**
1,2-Dichlorobenzene	0.41 J	<0.22	<0.22	<2.2	60	**600**
1,3-Dichlorobenzene	0.58 J	<0.29	<0.29	<2.9	120	**600**
1,2-Dichloropropane	1.2	<0.25	<0.25	<2.5	0.5	**5**
Methylene chloride	1.6 J	<0.56	<0.56	<5.6	0.5	**5**
1,1,1-Trichloroethane	**230**	1.1 J	0.60 J	**300**	40	**200**
1,1,2-Trichloroethane	**15**	<0.40	<0.40	<4.0	0.5	**5**
Tetrachloroethene	**1,900**	3.9	**38**	**490**	0.5	**5**
Trichloroethene	**260**	<0.30	0.38 J	**240**	0.5	**5**
Ketones						
Acetone	5.5	<0.92	1.2 J	19 J	1,800	**9,000**
Petroleum Compounds						
Benzene	0.92 J	<0.30	<0.30	<3.0	0.5	**5**
Methyl tert-butyl ether	2.8	<0.12	**150**	<1.2	12	**60**

TABLE 2

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
COLLECTED IN SOUTHEASTERN AREA OF FACILIITY
OCTOBER 2018
SUMMARY OF DETECTED COMPOUNDS (µg/ℓ)

NOTES:
All concentrations are in micrograms per liter (µg/ ℓ)
All groundwater samples were collected with a Geoprobe.
Each sample was analyzed for a full suite of VOCs using Method 8260. Only compounds detected in one or more samples are shown on each page of this table.
Detected compound concentrations are highlighted in yellow.
NR 140 PAL and ES = NR 140 preventative action limit and enforcement standards from http://docs.legis.wisconsin.gov/code/admin_code/nr/100/140.pdf; version updated in February 2017.
NSE = No standard established.
Concentrations above NR 140 PAL are underlined. Concentrations above NR 140 ES are in bold.
J = Estimated concentration measured between the laboratory's method detection and quantitation limits.

APPENDIX A

BORING LOGS & ABANDONMENT FORMS

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

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141, 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: ☐ 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 (Degrees and Minutes): 44 · 45 260 N; 91 · 27 280 W — Method Code (see instructions):

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

or Gov't Lot #

Well Street Address: 5200 RYDER RD

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 #: GP-91

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME

Mailing Address of Present Owner: 5200 RYDER RD

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

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillho

Original Construction Date (mm/dd/yyyy): 10/14/2018

If a Well Construction Report is available, please attach.

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

Formation Type: ☐ Unconsolidated ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	3/4"
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
	4'

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

If yes, to what depth (ft.)? — Depth to Water (feet): 14.15'

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

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ 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 ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete ☒ 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 3/8	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Stevens Drilling & Env. Svc. Inc.		10/14/2018

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: 10/18/18

DNR Use Only

Date Received	Noted By

Comments:

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

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

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

1. Well Location Information

County: EAU CLAIRE
Wi Unique Well # of Removed Well:
Hicap #:
Latitude / Longitude (Degrees and Minutes): 44 · 45 260 'N / 91 · 17 280 'W
Method Code (see instructions):
¼ ¼ SW ¼ SE
or Gov't Lot #:
Section: 3
Township: 26 N
Range: 9 ☐ E ☒ W
Well Street Address: 5200 RYDER RD
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 #: GP-92
Original Well Owner: WRR ENVIRONMENTAL SERVICES
Present Well Owner: SAME
Mailing Address of Present Owner: 5200 RYDER RD
City of Present Owner: EAU CLAIRE
State: WI
ZIP Code: 54701

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillho
Original Construction Date (mm/dd/yyyy): 10/14/2018
If a Well Construction Report is available, please attach.

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

Formation Type
☒ Unconsolidated (mation ☐ Bedrock

Total Well Depth From Ground Surface (ft.): 26'
Casing Diameter (in.): 3/4
Lower Drillhole Diamet r (in.):
Casing Depth (ft.): ≈ 20'

Was well annular spac grouted? ☐ Yes ☒ No ☐ Unknown
If yes, to what depth (f t)?
Depth to Water (feet): 13.31'

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

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ 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 ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ 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 3/4"	Surface	26	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Fi Doing Filling & Sealing: Stevens Drilling & Env. Svc. Inc.
License #:
Date of Filling & Sealing (mm/dd/yyyy): 10/14/2018
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 Tahl
Date Signed: 10/18/2018

DNR Use Only
Date Received:
Noted By:
Comments:

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

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

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

1. Well Location Information

County: EAU CLAIRE

WI Unique Well # of Removed Well: — — — — —

Hicap #:

Latitude / Longitude (Degrees and Minutes): 44 · 45 26.0 'N / 91 · 27 28.0 'W

Method Code (see instructions):

¼ ¼ SW ¼ SE

Section: 3 Township: 26 N Range: 9 ☐ E ☒ W

or Gov't Lot #:

Well Street Address: 5200 RYDER RD

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 #: GP- 93

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME

Mailing Address of Present Owner: 5200 RYDER RD

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

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillho

Original Construction Date (mm/dd/yyyy): 10/16/2018

If a Well Construction Report is available, please attach.

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

Formation Type: ☒ Unconsolidated ☐ Bedrock

Total Well Depth From Ground Surface (ft.): 26'

Casing Diameter (in.): 3/4

Lower Drillhole Diameter (in.):

Casing Depth (ft.): 22'

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

If yes, to what depth (ft.)?

Depth to Water (feet): 13.64'

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

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ 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 ☐ Clay-Sand Slurry (11 lb./gal wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete ☒ 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	26	1 1/4 13ags	

Bentonite chips 3/8

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: Stevens Drilling & Env. Svc. Inc.

License #:

Date of Filling & Sealing (mm/dd/yyyy): 10/16/18

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:

Date Signed: 10/18/18

DNR Use Only: Date Received | Noted By | Comments

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

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

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☐ Verification Only of Fill and Seal

Route to: ☐ 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 (Degrees and Minutes): 44 · 45 260 °N; 91 · 27 280 °W — Method Code (see instructions):

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

or Gov't Lot #

Well Street Address: 5200 RYDER RD

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 #: GP- 94

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME

Mailing Address of Present Owner: 5200 RYDER RD

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

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillho

Original Construction Date (mm/dd/yyyy): 10/17/2018

If a Well Construction Report is available, please attach.

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

Formation Type: ☒ Unconsolidated ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in)
20'	3/4"
Lower Drillhole Diameter (in)	**Casing Depth (ft)**
	16'

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

If yes, to what depth (ft)? — Depth to Water (feet): 13.97'

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

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ 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 ☐ Clay-Sand Slurry (11 lb./gal wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete ☒ 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 3/8	Surface	20	1 Bag	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Stevens Drilling & Env. Svc. Inc.		10/17/2018

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 Stevens	10/18/18

DNR Use Only

Date Received	Noted By

Comments:

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

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141, 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: ☐ 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 (Degrees and Minutes): 44 · 45 260 °N; 91 · 17 280 °W — Method Code (see instructions):

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

or Gov't Lot #

Well Street Address: 5200 RYDER RD

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 #: GP- 95

Original Well Owner: WRR ENVIRONMENTAL SERVICES

Present Well Owner: SAME

Mailing Address of Present Owner: 5200 RYDER RD

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

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillho

Original Construction Date (mm/dd/yyyy): 10/18/2018

If a Well Construction Report is available, please attach.

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

Formation Type: ☒ Unconsolidated ☐ Bedrock

Total Well Depth From Ground Surface (ft.): 24' — Casing Diameter (in.): 3/4"

Lower Drillhole Diameter (in.) — Casing Depth (ft.): 20'

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

If yes, to what depth (ft.)? — Depth to Water (feet): 13.37'

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

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ 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 ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☒ Bentonite-Sand Slurry ☒ Bentonite Chips ☐ Concrete

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	24	1 1/4 Bags	

Bentonite Chips 7/8"

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Stevens Drilling & Env. Svc. Inc.		10/18/2018

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 — Date Signed: 10/18/2018

DNR Use Only

Date Received	Noted By

Comments

Boring No. GP-91	TEST BORING LOG	Page 1 of 1
Project No./Name 55929.005	Location: Madison, WI	
Drill Contractor Stevens Drilling and Environmental Services, Inc	Gannett Fleming Geologist: Chelsea Payne	
Drill Equip/Method Geoprobe	Size/Type of Bit 3-inches	Sampling Method Start/Finish Date Push

Gannett Fleming

Well Installed? __ Yes X No	Casing Mat./Dia.	Screen: N/A Type Mat. Length Dia. Slot

Elevation Of: (Ft. Above MSL)	Ground Surface	Top of Well Casing	Top/Bottom Screen	Water Level	Date
	903.62 ft MSL	N/A	16-20 ft bgs	STATIC = 14.18'	10/14/18

Remarks:

Depth (ft)	Sample Interval (ft)	Recovery (in)	Color	Soil Description	PID Screening Results	Moisture	Soil Type
--	0.5-2.0	28"	Gry-blk	Asphalt (~4")	u/o charcoal 0.0 / u/ char 0.0	D	
--			Dk brn	Loose med.-fine sand	◊2.8 / 0.6	M	SP
--	2.0-4.0		Lt brn	Loose med sand	1.4 / 0.2		
--5	4.0-6.0	24"	Red stain	Loose med. sand, varied lithology	0.6 / 0		
--	6.0-8.0		Lt brn	Loose med. sand grading down to med. dense med. sand	◊0.8 / 0.2		
--	8.0-10.0	36"			0.4 / 0.1		
--10	10.0-12.0			Med. dense layered fine sand	0.5 / 0		
--	12.0-14.0	24"		Med. dense fine sand	1.5 / 0.6	▽ static @ 14.18'	
--15	14.0-16.0		Gry-Lt brn	Med. dense med. sand			
--				Stiff fine + med. sand	58 / 0.4		
-- *		48"	Dk brn	Med. dense fine sand	N/A	Sat W	
--				Loose med. sand			
--20				Med. dense v. fine sand + silt w/ two 1cm red stain layers near bottom of core			SM+SL
--				EOB @ 20 ft bgs			
--25							
--30							

◊ Soil sample collected

* Groundwater sample collected

NOTE: Static water level was measured through screened interval within geoprobe rods.

Boring No. GP-92	TEST BORING LOG	Page 1 of 1	Gannett Fleming
Project No./Name 55929.005	Location: Madison, WI		
Drill Contractor Stevens Drilling and Environmental Services, Inc	Gannett Fleming Geologist: Chelsea Payne		
Drill Equip/Method Geoprobe	Size/Type of Bit 3-inches	Sampling Method Start/Finish Date Push	
Well Installed? ___ Yes X No	Casing Mat./Dia.	Screen: N/A Type Mat. Length Dia. Slot	
Elevation Of: (Ft. Above MSL) Ground Surface 902.36 ft MSL	Top of Well Casing N/A	Top/Bottom Screen 16-20', 22-26' bgs	Water Level STATIC = 13.31'
Date 10/14/18			
Remarks:			

Depth (ft)	Sample Interval (ft)	Recovery (in)	Color	Soil Description	PID Screening Results (w/o charcoal / w/ char.)	Moisture	Soil Type
0	0.5-2.0	20"	Blk	Asphalt (3")		D	
				Med. dense fine-med. sand	2.1 / 0.2	M	SP
	2.0-4.0		Dk brn				
			Org-brn	Med. dense med. sand	1.0 / 1.0		
-5	4.0-6.0	24"	Lt brn/beige	loose med. sand	◊ 3.8 / 0		
	6.0-8.0						
				m. dense fine-med. sand w/ some Maroon staining on layers	0.4 / 0.2		
	8.0-10.0	24"			◊ 1.8 / 1.8		
-10							
	10.0-12.0			dense fine-v.fine sand in ~2mm layers	1.1 / 0		
	12.0-14.0	42"		dense fine sand w/ orange stained layers	4.3 / 1.6	SAT ▽ static @ 13.31' W	
-15	14.0-16.0				N/A		
		42"	Brn	med. dense v.f. sand + silt			SM-SL SP SM-ML
-20 *				med. dense coarse rounded & frosted sand			
				med. dense v.f. sand + silt			
-25 *				Blind drilled to 26' bgs for "deep" groundwater sample (22'-26' bgs)			
-30				EOB @ 26' bgs			

◊ Soil sample collected

* Groundwater sample collected

NOTE: Static water level was measured through screened interval w/ geoprobe rods.

Boring No. GP-93	TEST BORING LOG	Page 1 of 1	Gannett Fleming
Project No./Name 55929.005	Location: Madison, WI		
Drill Contractor Stevens Drilling and Environmental Services, Inc	Gannett Fleming Geologist: Chelsea Payne		
Drill Equip/Method Geoprobe	Size/Type of Bit 3-inches	Sampling Method Start/Finish Date Push	
Well Installed? __ Yes X No	Casing Mat./Dia.	Screen: N/A Type Mat. Length Dia. Slot	
Elevation Of: (Ft. Above MSL) Ground Surface 902.60 ft MSL	Top of Well Casing N/A	Top/Bottom Screen 16-20' bgs 22-26' bgs	Water Level STATIC = 13.64' / Date 10/16/18
Remarks:			

Depth (ft)	Sample Interval	Recovery (in)	Color	Soil Description	PID Screening Results (w/o charcoal / w/ charcoal)	Moisture	Soil Type
	0.5-2.0	12"	Blk	asphalt ~ 3"		D	SW
			Dk Brn	very dense med. sand w/ some coarse sand	◊10 / 0.6	M	↓
	2.0-4.0		Brn	med. dense med. sand	4.4 / 0		SP
-5	4.0-6.0	28"	Lt brn	med. dense fine + med, sand	2.6 / 0.4		↓
			+ orng stain				SW
	6.0-8.0		Lt brn		1.5 / 0		↓
	8.0-10.0	36"		stiff fine + v.f. sand	◊1.8 / 0		SM-SL
-10	10.0-12.0			stiff v.fine sand + silt	1.4 / 0.2		↓
	12.0-14.0	42"		med. dense m.-f. sand	1.0 / 0	SAT	SP
				med. dense m. sand		▽ static @ 13.64	
-15	14.0-16.0		Beige Brn	med dense coarse rounded sand	5.4 / 0.4		↓
				med. dense med. sand			SM-SL
		48"		stiff fine-m. sand	N/A	W	↓
-20				soft fine sandy silt w/ some clay		Sat	
				med. dense m. sand			
				fine sand w/ clay			
				med. dense m. sand			
-25				Blind drilled to 26' bgs for "deep" GW sample (22-26')			
-30				EOB @ 26' bgs			

NOTES:
- Static water level was measured through screened interval within the geoprobe rods.

◊ Soil sample collected

* Groundwater sample collected

- Due to poor recovery in the 0-4' core, some asphalt may have been collected in the 0.5-2.0' soil sample. Therefore, the soil sample submitted to ALS lab is a composite of 0.5-2.0' and 2.0-4.0' soil.

Boring No. GP-94	**TEST BORING LOG**	**Page 1 of 1**
Project No./Name 55929.005	**Location:** Madison, WI	
Drill Contractor Stevens Drilling and Environmental Services, Inc	**Gannett Fleming Geologist:** Chelsea Payne	
Drill Equip/Method Geoprobe	**Size/Type of Bit** 3-inches	**Sampling Method Start/Finish Date** Push
Well Installed? __ Yes X No	**Casing Mat./Dia.**	**Screen: N/A** Type Mat. Length Dia. Slot
Elevation Of: (Ft. Above MSL) Ground Surface 903.15 ft MSL	Top of Well Casing N/A	Top/Bottom Screen 16'-20' bgs
Water Level STATIC = 13.97'	**Date** 10/17/18	
Remarks:		

Depth (ft)	Sample Interval	Recovery (in)	Color	Soil Description	PID Screening Results (w/o charcoal / w/ char)	Moisture	Soil Type
	0.5-2.0	36"	Gry-blk	Asphalt		D	
			Dk brn	Stiff SM-med gravel w/ med sand	◊10.2 / 0.2	M	GW-SW
	2.0-4.0		Blk	Very stiff fine-med. sand			SP
			Dk brn		3 / 0		
--5	4.0-6.0	36"	Brn	med. dense fine-med sand w/ some SM, gravel; varied lithology	◊5.4 / 0		SW
	6.0-8.0		Beige	loose med.-fine sand w/ some orange mottling	3.4 / 0		
	8.0-10.0	36"			2.2 / 0		
--10	10.0-12.0			med dense fine-v.f. sand	0.8 / 0.4		
	12.0-14.0	22"		stiff fine-v.f sand	◊4.4 / 0.5	SAT ▽ Static 13.97	
--15	14.0-16.0		Brn/orng	med dense m-f sand w/orng stain	6.6 / 0.1		SM
		48"	Brn	V.f. sand + silt-med. dense	N/A	W	SP
* --20				med. dense f. sand			SW
				stiff med-f sand		Sat	
				stiff f.-v.f. sand w/ ¼" red day layer			
				EOB @ 20' bgs			
--25							
--30							

◊ Soil sample collected
* Groundwater sample collected

NOTE: Static water level was measured through screened interval within geoprobe rods.

Boring No. GP-95	TEST BORING LOG	Page 1 of 1	Gannett Fleming
Project No./Name 55929.005	Location: Madison, WI		
Drill Contractor Stevens Drilling and Environmental Services, Inc	Gannett Fleming Geologist: Chelsea Payne		
Drill Equip/Method Geoprobe	Size/Type of Bit 3-inches	Sampling Method Push	Start/Finish Date
Well Installed? __ Yes X No	Casing Mat./Dia.	Screen: N/A Type Mat. Length Dia. Slot	
Elevation Of: (Ft. Above MSL) Ground Surface 902.69 ft MSL	Top of Well Casing N/A	Top/Bottom Screen 12-16' bgs, 18-24' bgs	Water Level STATIC = 13.37'
Date 10/18/18			
Remarks:			

Depth (ft)	Sample Interval	Recovery (in)	Color	Soil Description	PID Screening Results (w/o charcoal / w/ char.)	Moisture	Soil Type
	0.5-2.0	36"	Blk	Asphalt		D	
			DkBrn / Lt Brn	med. dense fine-m. sand	◊ 0 / —	M	SW
	2.0-4.0		Org Brn	med. dense med. sand w/ ½" dk brn layer at ~3.8'	0 / —		SP
-5	4.0-6.0	36"	Beige	med dense fine sand			
			Dk brn	med. dense f-m. sand w/ sm gravel	0 / —		SW
	6.0-8.0		Beige	med. dense f.-m. sand w/ two stained 1" dk brn layers	0 / —		
	8.0-10.0	36"		med. dense v.f. sand; homogenous lithology	0 / —		SP
-10							
	10.0-12.0			med. dense f.-v.f. sand w/ variable lithologies	◊ 0 / —		SW
	12.0-14.0	36"	Brn	stiff, layered v.f. sandy silt w/ org. mottling	2 / 2	Sat ▽ static @ 13.37'	ML-SL
*				med dense f.-med. sand		W	SW
-15	14.0-16.0			stiff m. sand w/ gray clay mottled layers	N/A	Sat	SC
				med. dense, silty fine-m. sand			SM-SL
*				Blind drilled to 24' bgs for "deep" gw sample (18-24' bgs).			
-20							
				EOB @ 24' bgs			
-25							
-30							

◊ Soil sample collected
* Groundwater sample collected

NOTE: Static water level was measured through screened interval within geoprobe rods

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name WRR Environmental SE	**Local Grid Location of Well** ☐ft. N. ☐S. _____ ☐ft. E. ☐W.	**Well Name** W-35
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. 44° 45' 260" Long. 91° 27' 280" or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID 61802653O	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed** 10/22/2018 (m m d d y y y y)
Type of Well Well Code ____/____	**Section Location of Waste/Source** SW 1/4 of SE 1/4 of Sec. 3 T. 26 N, R. 9 ☐E ☐W	**Well Installed By: Name (first, last) and Firm** JOHN TOKKESDAL STEVENS DRILLING
Distance from Waste/Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☒ Not Known	**Gov. Lot Number** _____

A. Protective pipe, top elevation 24 ft. MSL
B. Well casing, top elevation 23 1/2 ft. MSL
C. Land surface elevation 21 ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

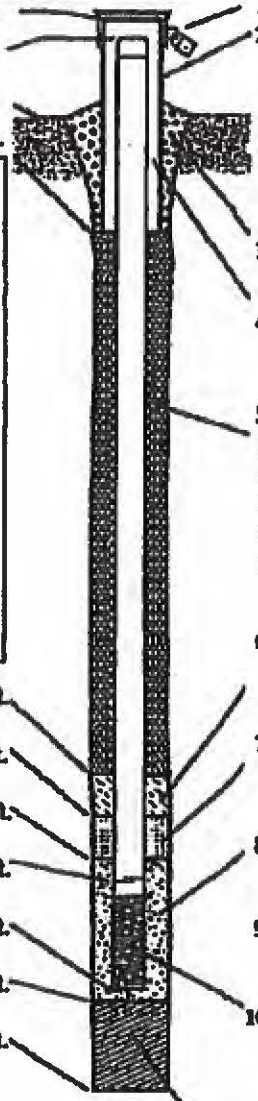
14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐ _____

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top 2 ft. MSL or _____ ft.
F. Fine sand, top _____ ft. MSL or _____ ft.
G. Filter pack, top 9 ft. MSL or _____ ft.
H. Screen joint, top 11 ft. MSL or _____ ft.
I. Well bottom 21 ft. MSL or _____ ft.
J. Filter pack, bottom 21 1/2 ft. MSL or _____ ft.
K. Borehole, bottom 21 1/2 ft. MSL or _____ ft.
L. Borehole, diameter 8 1/4 in.
M. O.D. well casing 2.375 in.
N. I.D. well casing 2 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 6 ft.
c. Material: Steel ☒ 04
Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ _____
4. Material between well casing and protective pipe:
Bentonite ☐ 30
Other ☒ Neat Concrete
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. _____ ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐ _____
10. Screen material: PVC
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14
Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature _____ Firm Steven's Drilling & Env.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
WRR Environmental Services	Eau Claire	W-35

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
618026530	__	_____	___

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well __90 min.

4. Depth of well (from top of well casisng) __229 ft.

5. Inside diameter of well __2.07 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well __15.0 gal.

8. Volume of water added (if any) __0.0 gal.

9. Source of water added N/A

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results) N/A

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	14.67 ft.	15.26 ft.
Date b.	10/22/2018 (m m d d y y y y)	10/23/2018 (m m d d y y y y)
Time c.	4:30 ☐ a.m. ☒ p.m.	11:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown/sedi	Clear ☐ 20 Turbid ☒ 25 (Describe) Brown/sedi

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: PAYNE Last Name: CHELSEA
Firm: GANNETT FLEMING

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Jim Last Name: Hager
Facility/Firm: WRR Environmental Services
Street: 5200 Ryder Rd.
City/State/Zip: Eau Claire, WI 54701

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Chelsea Payne
Print Name: Chelsea Payne
Firm: Gannett Fleming

NOTE: See instructions for more information including a list of county codes and well type codes.

APPENDIX B

LABORATORY REPORTS FOR SOIL & GROUNDWATER SAMPLES OCTOBER 2018

The analytical results and QA/QC data included with this report were reviewed by AWM on 11/06/18.

02-Nov-2018

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

Re: **WRR (55929.005)** Work Order: **18101308**

Dear Anthony,

ALS Environmental received 13 samples on 19-Oct-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 43.

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,

Ehrland Bosworth

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: WI: 399084510

ALS Group, USA

Date: 02-Nov-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: **18101308**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
18101308-01	GP-91 0.5-2.0	Soil		10/15/2018 12:25	10/19/2018 09:00	☐
18101308-02	GP-91 6.0-8.0	Soil		10/15/2018 12:30	10/19/2018 09:00	☐
18101308-03	GP-92 4.0-6.0	Soil		10/15/2018 13:30	10/19/2018 09:00	☐
18101308-04	GP-92 8.0-10.0	Soil		10/15/2018 13:40	10/19/2018 09:00	☐
18101308-05	GP-93 0.5-4.0	Soil		10/16/2018 13:50	10/19/2018 09:00	☐
18101308-06	GP-93 8.0-10.0	Soil		10/16/2018 13:30	10/19/2018 09:00	☐
18101308-07	GP-94 0.5-2.0	Soil		10/17/2018 09:20	10/19/2018 09:00	☐
18101308-08	GP-94 4.0-6.0	Soil		10/17/2018 09:25	10/19/2018 09:00	☐
18101308-09	GP-94 12.0-14.0	Soil		10/17/2018 09:30	10/19/2018 09:00	☐
18101308-10	GP-95 0.5-2.0	Soil		10/18/2018 09:00	10/19/2018 09:00	☐
18101308-11	GP-95 8.0-10.0	Soil		10/18/2018 09:10	10/19/2018 09:00	☐
18101308-12	GP-95 10.0-12.0	Soil		10/18/2018 09:20	10/19/2018 09:00	☐
18101308-13	Trip Blank	Soil		10/15/2018	10/19/2018 09:00	☐

ALS Group, USA

Date: 02-Nov-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
WorkOrder: **18101308**

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
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
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
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: 18101308

Case Narrative

Samples for the above noted Work Order were received on 10/19/18. 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 126615, Method WI_VOC_S, Sample 18101308-09A: Verification of sample preservation indicated a pH >2.

Wet Chemistry:
No deviations or anomalies noted.

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 0.5-2.0
Collection Date: 10/15/2018 12:25 PM

Work Order: 18101308
Lab ID: 18101308-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		9.7	32	µg/Kg-dry	1	10/23/2018 20:41
1,1,1-Trichloroethane	U		11	36	µg/Kg-dry	1	10/23/2018 20:41
1,1,2,2-Tetrachloroethane	U		9.1	30	µg/Kg-dry	1	10/23/2018 20:41
1,1,2-Trichloroethane	U		11	38	µg/Kg-dry	1	10/23/2018 20:41
1,1-Dichloroethane	U		9.6	32	µg/Kg-dry	1	10/23/2018 20:41
1,1-Dichloroethene	U		10	34	µg/Kg-dry	1	10/23/2018 20:41
1,1-Dichloropropene	U		17	56	µg/Kg-dry	1	10/23/2018 20:41
1,2,3-Trichlorobenzene	U		17	55	µg/Kg-dry	1	10/23/2018 20:41
1,2,3-Trichloropropane	U		25	84	µg/Kg-dry	1	10/23/2018 20:41
1,2,4-Trichlorobenzene	U		28	93	µg/Kg-dry	1	10/23/2018 20:41
1,2,4-Trimethylbenzene	U		7.6	25	µg/Kg-dry	1	10/23/2018 20:41
1,2-Dibromo-3-chloropropane	U		15	51	µg/Kg-dry	1	10/23/2018 20:41
1,2-Dibromoethane	U		13	42	µg/Kg-dry	1	10/23/2018 20:41
1,2-Dichlorobenzene	U		11	37	µg/Kg-dry	1	10/23/2018 20:41
1,2-Dichloroethane	U		10	34	µg/Kg-dry	1	10/23/2018 20:41
1,2-Dichloropropane	U		10	35	µg/Kg-dry	1	10/23/2018 20:41
1,3,5-Trimethylbenzene	U		17	55	µg/Kg-dry	1	10/23/2018 20:41
1,3-Dichlorobenzene	U		12	40	µg/Kg-dry	1	10/23/2018 20:41
1,3-Dichloropropane	U		11	35	µg/Kg-dry	1	10/23/2018 20:41
1,4-Dichlorobenzene	U		9.9	33	µg/Kg-dry	1	10/23/2018 20:41
2,2-Dichloropropane	U		14	46	µg/Kg-dry	1	10/23/2018 20:41
2-Butanone	U		51	170	µg/Kg-dry	1	10/23/2018 20:41
2-Chlorotoluene	U		11	38	µg/Kg-dry	1	10/23/2018 20:41
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 20:41
4-Chlorotoluene	U		8.3	28	µg/Kg-dry	1	10/23/2018 20:41
4-Methyl-2-pentanone	U		28	92	µg/Kg-dry	1	10/23/2018 20:41
Acetone	U		68	230	µg/Kg-dry	1	10/23/2018 20:41
Benzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 20:41
Bromobenzene	U		17	57	µg/Kg-dry	1	10/23/2018 20:41
Bromochloromethane	U		17	56	µg/Kg-dry	1	10/23/2018 20:41
Bromodichloromethane	U		10	34	µg/Kg-dry	1	10/23/2018 20:41
Bromoform	U		13	45	µg/Kg-dry	1	10/23/2018 20:41
Bromomethane	U		16	55	µg/Kg-dry	1	10/23/2018 20:41
Carbon tetrachloride	U		6.7	22	µg/Kg-dry	1	10/23/2018 20:41
Chlorobenzene	U		11	38	µg/Kg-dry	1	10/23/2018 20:41
Chloroethane	U		24	80	µg/Kg-dry	1	10/23/2018 20:41
Chloroform	U		13	43	µg/Kg-dry	1	10/23/2018 20:41
Chloromethane	U		15	51	µg/Kg-dry	1	10/23/2018 20:41

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 0.5-2.0
Collection Date: 10/15/2018 12:25 PM

Work Order: 18101308
Lab ID: 18101308-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		11	36	µg/Kg-dry	1	10/23/2018 20:41
cis-1,3-Dichloropropene	U		14	48	µg/Kg-dry	1	10/23/2018 20:41
Dibromochloromethane	U		8.6	29	µg/Kg-dry	1	10/23/2018 20:41
Dibromomethane	U		21	69	µg/Kg-dry	1	10/23/2018 20:41
Dichlorodifluoromethane	U		17	56	µg/Kg-dry	1	10/23/2018 20:41
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 20:41
Ethylbenzene	U		8.8	29	µg/Kg-dry	1	10/23/2018 20:41
Hexachlorobutadiene	U		24	80	µg/Kg-dry	1	10/23/2018 20:41
Isopropylbenzene	U		15	49	µg/Kg-dry	1	10/23/2018 20:41
m,p-Xylene	**22**	J	**17**	**57**	**µg/Kg-dry**	1	10/23/2018 20:41
Methyl tert-butyl ether	U		12	41	µg/Kg-dry	1	10/23/2018 20:41
Methylene chloride	U		17	58	µg/Kg-dry	1	10/23/2018 20:41
Naphthalene	U		6.4	22	µg/Kg-dry	1	10/23/2018 20:41
n-Butylbenzene	U		9.8	33	µg/Kg-dry	1	10/23/2018 20:41
n-Propylbenzene	U		12	40	µg/Kg-dry	1	10/23/2018 20:41
o-Xylene	**14**	J	**12**	**41**	**µg/Kg-dry**	1	10/23/2018 20:41
p-Isopropyltoluene	U		14	48	µg/Kg-dry	1	10/23/2018 20:41
sec-Butylbenzene	U		15	50	µg/Kg-dry	1	10/23/2018 20:41
Styrene	U		27	89	µg/Kg-dry	1	10/23/2018 20:41
tert-Butylbenzene	U		17	56	µg/Kg-dry	1	10/23/2018 20:41
Tetrachloroethene	**620**		**19**	**62**	**µg/Kg-dry**	1	10/23/2018 20:41
Toluene	U		13	42	µg/Kg-dry	1	10/23/2018 20:41
trans-1,2-Dichloroethene	U		11	36	µg/Kg-dry	1	10/23/2018 20:41
trans-1,3-Dichloropropene	U		6.7	23	µg/Kg-dry	1	10/23/2018 20:41
Trichloroethene	U		10	34	µg/Kg-dry	1	10/23/2018 20:41
Trichlorofluoromethane	U		7.3	24	µg/Kg-dry	1	10/23/2018 20:41
Vinyl chloride	U		12	40	µg/Kg-dry	1	10/23/2018 20:41
Xylenes, Total	**36**	J	**29**	**97**	**µg/Kg-dry**	1	10/23/2018 20:41
Surr: 1,2-Dichloroethane-d4	*99.6*			*70-130*	*%REC*	1	10/23/2018 20:41
Surr: 4-Bromofluorobenzene	*96.8*			*70-130*	*%REC*	1	10/23/2018 20:41
Surr: Dibromofluoromethane	*97.8*			*70-130*	*%REC*	1	10/23/2018 20:41
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	10/23/2018 20:41
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**5.6**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 6.0-8.0
Collection Date: 10/15/2018 12:30 PM

Work Order: 18101308
Lab ID: 18101308-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 20:56
1,1,1-Trichloroethane	U		9.2	31	µg/Kg-dry	1	10/23/2018 20:56
1,1,2,2-Tetrachloroethane	U		7.8	26	µg/Kg-dry	1	10/23/2018 20:56
1,1,2-Trichloroethane	U		9.7	32	µg/Kg-dry	1	10/23/2018 20:56
1,1-Dichloroethane	U		8.2	27	µg/Kg-dry	1	10/23/2018 20:56
1,1-Dichloroethene	U		8.7	29	µg/Kg-dry	1	10/23/2018 20:56
1,1-Dichloropropene	U		14	47	µg/Kg-dry	1	10/23/2018 20:56
1,2,3-Trichlorobenzene	U		14	47	µg/Kg-dry	1	10/23/2018 20:56
1,2,3-Trichloropropane	U		22	72	µg/Kg-dry	1	10/23/2018 20:56
1,2,4-Trichlorobenzene	U		24	79	µg/Kg-dry	1	10/23/2018 20:56
1,2,4-Trimethylbenzene	U		6.5	22	µg/Kg-dry	1	10/23/2018 20:56
1,2-Dibromo-3-chloropropane	U		13	44	µg/Kg-dry	1	10/23/2018 20:56
1,2-Dibromoethane	U		11	36	µg/Kg-dry	1	10/23/2018 20:56
1,2-Dichlorobenzene	U		9.6	32	µg/Kg-dry	1	10/23/2018 20:56
1,2-Dichloroethane	U		8.8	29	µg/Kg-dry	1	10/23/2018 20:56
1,2-Dichloropropane	U		8.9	30	µg/Kg-dry	1	10/23/2018 20:56
1,3,5-Trimethylbenzene	U		14	47	µg/Kg-dry	1	10/23/2018 20:56
1,3-Dichlorobenzene	U		10	35	µg/Kg-dry	1	10/23/2018 20:56
1,3-Dichloropropane	U		9.0	30	µg/Kg-dry	1	10/23/2018 20:56
1,4-Dichlorobenzene	U		8.4	28	µg/Kg-dry	1	10/23/2018 20:56
2,2-Dichloropropane	U		12	39	µg/Kg-dry	1	10/23/2018 20:56
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 20:56
2-Chlorotoluene	U		9.7	32	µg/Kg-dry	1	10/23/2018 20:56
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 20:56
4-Chlorotoluene	U		7.1	24	µg/Kg-dry	1	10/23/2018 20:56
4-Methyl-2-pentanone	U		24	79	µg/Kg-dry	1	10/23/2018 20:56
Acetone	U		59	200	µg/Kg-dry	1	10/23/2018 20:56
Benzene	U		7.3	24	µg/Kg-dry	1	10/23/2018 20:56
Bromobenzene	U		15	49	µg/Kg-dry	1	10/23/2018 20:56
Bromochloromethane	U		14	48	µg/Kg-dry	1	10/23/2018 20:56
Bromodichloromethane	U		8.7	29	µg/Kg-dry	1	10/23/2018 20:56
Bromoform	U		11	38	µg/Kg-dry	1	10/23/2018 20:56
Bromomethane	U		14	47	µg/Kg-dry	1	10/23/2018 20:56
Carbon tetrachloride	U		5.7	19	µg/Kg-dry	1	10/23/2018 20:56
Chlorobenzene	U		9.7	32	µg/Kg-dry	1	10/23/2018 20:56
Chloroethane	U		21	69	µg/Kg-dry	1	10/23/2018 20:56
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 20:56
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 20:56

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 6.0-8.0
Collection Date: 10/15/2018 12:30 PM

Work Order: 18101308
Lab ID: 18101308-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/23/2018 20:56
cis-1,3-Dichloropropene	U		12	41	µg/Kg-dry	1	10/23/2018 20:56
Dibromochloromethane	U		7.4	25	µg/Kg-dry	1	10/23/2018 20:56
Dibromomethane	U		18	59	µg/Kg-dry	1	10/23/2018 20:56
Dichlorodifluoromethane	U		14	48	µg/Kg-dry	1	10/23/2018 20:56
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 20:56
Ethylbenzene	U		7.5	25	µg/Kg-dry	1	10/23/2018 20:56
Hexachlorobutadiene	U		20	68	µg/Kg-dry	1	10/23/2018 20:56
Isopropylbenzene	U		13	42	µg/Kg-dry	1	10/23/2018 20:56
m,p-Xylene	U		15	48	µg/Kg-dry	1	10/23/2018 20:56
Methyl tert-butyl ether	U		10	35	µg/Kg-dry	1	10/23/2018 20:56
Methylene chloride	U		15	49	µg/Kg-dry	1	10/23/2018 20:56
Naphthalene	U		5.5	18	µg/Kg-dry	1	10/23/2018 20:56
n-Butylbenzene	U		8.4	28	µg/Kg-dry	1	10/23/2018 20:56
n-Propylbenzene	U		10	34	µg/Kg-dry	1	10/23/2018 20:56
o-Xylene	U		10	35	µg/Kg-dry	1	10/23/2018 20:56
p-Isopropyltoluene	U		12	41	µg/Kg-dry	1	10/23/2018 20:56
sec-Butylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 20:56
Styrene	U		23	76	µg/Kg-dry	1	10/23/2018 20:56
tert-Butylbenzene	U		14	47	µg/Kg-dry	1	10/23/2018 20:56
Tetrachloroethene	U		16	53	µg/Kg-dry	1	10/23/2018 20:56
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 20:56
trans-1,2-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/23/2018 20:56
trans-1,3-Dichloropropene	U		5.8	19	µg/Kg-dry	1	10/23/2018 20:56
Trichloroethene	U		8.6	29	µg/Kg-dry	1	10/23/2018 20:56
Trichlorofluoromethane	U		6.2	21	µg/Kg-dry	1	10/23/2018 20:56
Vinyl chloride	U		10	34	µg/Kg-dry	1	10/23/2018 20:56
Xylenes, Total	U		25	83	µg/Kg-dry	1	10/23/2018 20:56
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	10/23/2018 20:56
Surr: 4-Bromofluorobenzene	*98.4*			*70-130*	*%REC*	1	10/23/2018 20:56
Surr: Dibromofluoromethane	*100*			*70-130*	*%REC*	1	10/23/2018 20:56
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	10/23/2018 20:56
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**3.7**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 4.0-6.0
Collection Date: 10/15/2018 01:30 PM

Work Order: 18101308
Lab ID: 18101308-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.5	28	µg/Kg-dry	1	10/23/2018 21:12
1,1,1-Trichloroethane	U		9.4	31	µg/Kg-dry	1	10/23/2018 21:12
1,1,2,2-Tetrachloroethane	U		8.0	27	µg/Kg-dry	1	10/23/2018 21:12
1,1,2-Trichloroethane	U		9.9	33	µg/Kg-dry	1	10/23/2018 21:12
1,1-Dichloroethane	U		8.4	28	µg/Kg-dry	1	10/23/2018 21:12
1,1-Dichloroethene	U		8.9	30	µg/Kg-dry	1	10/23/2018 21:12
1,1-Dichloropropene	U		15	49	µg/Kg-dry	1	10/23/2018 21:12
1,2,3-Trichlorobenzene	U		15	48	µg/Kg-dry	1	10/23/2018 21:12
1,2,3-Trichloropropane	U		22	73	µg/Kg-dry	1	10/23/2018 21:12
1,2,4-Trichlorobenzene	U		24	81	µg/Kg-dry	1	10/23/2018 21:12
1,2,4-Trimethylbenzene	U		6.6	22	µg/Kg-dry	1	10/23/2018 21:12
1,2-Dibromo-3-chloropropane	U		13	45	µg/Kg-dry	1	10/23/2018 21:12
1,2-Dibromoethane	U		11	37	µg/Kg-dry	1	10/23/2018 21:12
1,2-Dichlorobenzene	U		9.8	33	µg/Kg-dry	1	10/23/2018 21:12
1,2-Dichloroethane	U		9.0	30	µg/Kg-dry	1	10/23/2018 21:12
1,2-Dichloropropane	U		9.1	30	µg/Kg-dry	1	10/23/2018 21:12
1,3,5-Trimethylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 21:12
1,3-Dichlorobenzene	U		11	35	µg/Kg-dry	1	10/23/2018 21:12
1,3-Dichloropropane	U		9.2	31	µg/Kg-dry	1	10/23/2018 21:12
1,4-Dichlorobenzene	U		8.6	29	µg/Kg-dry	1	10/23/2018 21:12
2,2-Dichloropropane	U		12	40	µg/Kg-dry	1	10/23/2018 21:12
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 21:12
2-Chlorotoluene	U		9.9	33	µg/Kg-dry	1	10/23/2018 21:12
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:12
4-Chlorotoluene	U		7.2	24	µg/Kg-dry	1	10/23/2018 21:12
4-Methyl-2-pentanone	U		24	80	µg/Kg-dry	1	10/23/2018 21:12
Acetone	U		60	200	µg/Kg-dry	1	10/23/2018 21:12
Benzene	U		7.5	25	µg/Kg-dry	1	10/23/2018 21:12
Bromobenzene	U		15	50	µg/Kg-dry	1	10/23/2018 21:12
Bromochloromethane	U		15	49	µg/Kg-dry	1	10/23/2018 21:12
Bromodichloromethane	U		8.9	30	µg/Kg-dry	1	10/23/2018 21:12
Bromoform	U		12	39	µg/Kg-dry	1	10/23/2018 21:12
Bromomethane	U		14	48	µg/Kg-dry	1	10/23/2018 21:12
Carbon tetrachloride	U		5.9	19	µg/Kg-dry	1	10/23/2018 21:12
Chlorobenzene	U		9.9	33	µg/Kg-dry	1	10/23/2018 21:12
Chloroethane	U		21	70	µg/Kg-dry	1	10/23/2018 21:12
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 21:12
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 21:12

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 4.0-6.0
Collection Date: 10/15/2018 01:30 PM

Work Order: 18101308
Lab ID: 18101308-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.3	31	µg/Kg-dry	1	10/23/2018 21:12
cis-1,3-Dichloropropene	U		13	42	µg/Kg-dry	1	10/23/2018 21:12
Dibromochloromethane	U		7.5	25	µg/Kg-dry	1	10/23/2018 21:12
Dibromomethane	U		18	60	µg/Kg-dry	1	10/23/2018 21:12
Dichlorodifluoromethane	U		15	49	µg/Kg-dry	1	10/23/2018 21:12
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:12
Ethylbenzene	U		7.7	26	µg/Kg-dry	1	10/23/2018 21:12
Hexachlorobutadiene	U		21	70	µg/Kg-dry	1	10/23/2018 21:12
Isopropylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 21:12
m,p-Xylene	U		15	49	µg/Kg-dry	1	10/23/2018 21:12
Methyl tert-butyl ether	U		11	36	µg/Kg-dry	1	10/23/2018 21:12
Methylene chloride	**15**	J	**15**	**50**	**µg/Kg-dry**	1	10/23/2018 21:12
Naphthalene	U		5.6	19	µg/Kg-dry	1	10/23/2018 21:12
n-Butylbenzene	U		8.6	29	µg/Kg-dry	1	10/23/2018 21:12
n-Propylbenzene	U		11	35	µg/Kg-dry	1	10/23/2018 21:12
o-Xylene	U		11	36	µg/Kg-dry	1	10/23/2018 21:12
p-Isopropyltoluene	U		13	42	µg/Kg-dry	1	10/23/2018 21:12
sec-Butylbenzene	U		13	44	µg/Kg-dry	1	10/23/2018 21:12
Styrene	U		23	78	µg/Kg-dry	1	10/23/2018 21:12
tert-Butylbenzene	U		15	49	µg/Kg-dry	1	10/23/2018 21:12
Tetrachloroethene	U		16	54	µg/Kg-dry	1	10/23/2018 21:12
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 21:12
trans-1,2-Dichloroethene	U		9.3	31	µg/Kg-dry	1	10/23/2018 21:12
trans-1,3-Dichloropropene	U		5.9	20	µg/Kg-dry	1	10/23/2018 21:12
Trichloroethene	U		8.8	29	µg/Kg-dry	1	10/23/2018 21:12
Trichlorofluoromethane	U		6.4	21	µg/Kg-dry	1	10/23/2018 21:12
Vinyl chloride	U		10	35	µg/Kg-dry	1	10/23/2018 21:12
Xylenes, Total	U		26	85	µg/Kg-dry	1	10/23/2018 21:12
Surr: 1,2-Dichloroethane-d4	*99.9*			*70-130*	*%REC*	1	10/23/2018 21:12
Surr: 4-Bromofluorobenzene	*94.9*			*70-130*	*%REC*	1	10/23/2018 21:12
Surr: Dibromofluoromethane	*94.8*			*70-130*	*%REC*	1	10/23/2018 21:12
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	10/23/2018 21:12
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**4.8**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 8.0-10.0
Collection Date: 10/15/2018 01:40 PM

Work Order: 18101308
Lab ID: 18101308-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.6	29	µg/Kg-dry	1	10/23/2018 21:28
1,1,1-Trichloroethane	U		9.6	32	µg/Kg-dry	1	10/23/2018 21:28
1,1,2,2-Tetrachloroethane	U		8.1	27	µg/Kg-dry	1	10/23/2018 21:28
1,1,2-Trichloroethane	U		10	34	µg/Kg-dry	1	10/23/2018 21:28
1,1-Dichloroethane	U		8.6	29	µg/Kg-dry	1	10/23/2018 21:28
1,1-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/23/2018 21:28
1,1-Dichloropropene	U		15	50	µg/Kg-dry	1	10/23/2018 21:28
1,2,3-Trichlorobenzene	U		15	50	µg/Kg-dry	1	10/23/2018 21:28
1,2,3-Trichloropropane	U		23	75	µg/Kg-dry	1	10/23/2018 21:28
1,2,4-Trichlorobenzene	U		25	83	µg/Kg-dry	1	10/23/2018 21:28
1,2,4-Trimethylbenzene	U		6.8	23	µg/Kg-dry	1	10/23/2018 21:28
1,2-Dibromo-3-chloropropane	U		14	46	µg/Kg-dry	1	10/23/2018 21:28
1,2-Dibromoethane	U		11	38	µg/Kg-dry	1	10/23/2018 21:28
1,2-Dichlorobenzene	U		10	33	µg/Kg-dry	1	10/23/2018 21:28
1,2-Dichloroethane	U		9.2	31	µg/Kg-dry	1	10/23/2018 21:28
1,2-Dichloropropane	U		9.3	31	µg/Kg-dry	1	10/23/2018 21:28
1,3,5-Trimethylbenzene	U		15	49	µg/Kg-dry	1	10/23/2018 21:28
1,3-Dichlorobenzene	U		11	36	µg/Kg-dry	1	10/23/2018 21:28
1,3-Dichloropropane	U		9.4	31	µg/Kg-dry	1	10/23/2018 21:28
1,4-Dichlorobenzene	U		8.8	29	µg/Kg-dry	1	10/23/2018 21:28
2,2-Dichloropropane	U		12	41	µg/Kg-dry	1	10/23/2018 21:28
2-Butanone	U		45	150	µg/Kg-dry	1	10/23/2018 21:28
2-Chlorotoluene	U		10	34	µg/Kg-dry	1	10/23/2018 21:28
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:28
4-Chlorotoluene	U		7.4	25	µg/Kg-dry	1	10/23/2018 21:28
4-Methyl-2-pentanone	U		25	82	µg/Kg-dry	1	10/23/2018 21:28
Acetone	U		61	200	µg/Kg-dry	1	10/23/2018 21:28
Benzene	U		7.6	25	µg/Kg-dry	1	10/23/2018 21:28
Bromobenzene	U		15	51	µg/Kg-dry	1	10/23/2018 21:28
Bromochloromethane	U		15	50	µg/Kg-dry	1	10/23/2018 21:28
Bromodichloromethane	U		9.0	30	µg/Kg-dry	1	10/23/2018 21:28
Bromoform	U		12	40	µg/Kg-dry	1	10/23/2018 21:28
Bromomethane	U		15	49	µg/Kg-dry	1	10/23/2018 21:28
Carbon tetrachloride	U		6.0	20	µg/Kg-dry	1	10/23/2018 21:28
Chlorobenzene	U		10	34	µg/Kg-dry	1	10/23/2018 21:28
Chloroethane	U		21	72	µg/Kg-dry	1	10/23/2018 21:28
Chloroform	U		11	38	µg/Kg-dry	1	10/23/2018 21:28
Chloromethane	U		14	45	µg/Kg-dry	1	10/23/2018 21:28

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 8.0-10.0
Collection Date: 10/15/2018 01:40 PM

Work Order: 18101308
Lab ID: 18101308-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.5	32	µg/Kg-dry	1	10/23/2018 21:28
cis-1,3-Dichloropropene	U		13	43	µg/Kg-dry	1	10/23/2018 21:28
Dibromochloromethane	U		7.7	26	µg/Kg-dry	1	10/23/2018 21:28
Dibromomethane	U		19	62	µg/Kg-dry	1	10/23/2018 21:28
Dichlorodifluoromethane	U		15	50	µg/Kg-dry	1	10/23/2018 21:28
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:28
Ethylbenzene	U		7.9	26	µg/Kg-dry	1	10/23/2018 21:28
Hexachlorobutadiene	U		21	71	µg/Kg-dry	1	10/23/2018 21:28
Isopropylbenzene	U		13	44	µg/Kg-dry	1	10/23/2018 21:28
m,p-Xylene	**21**	J	**15**	**51**	**µg/Kg-dry**	1	10/23/2018 21:28
Methyl tert-butyl ether	U		11	37	µg/Kg-dry	1	10/23/2018 21:28
Methylene chloride	U		15	51	µg/Kg-dry	1	10/23/2018 21:28
Naphthalene	U		5.8	19	µg/Kg-dry	1	10/23/2018 21:28
n-Butylbenzene	U		8.8	29	µg/Kg-dry	1	10/23/2018 21:28
n-Propylbenzene	U		11	36	µg/Kg-dry	1	10/23/2018 21:28
o-Xylene	**15**	J	**11**	**36**	**µg/Kg-dry**	1	10/23/2018 21:28
p-Isopropyltoluene	U		13	43	µg/Kg-dry	1	10/23/2018 21:28
sec-Butylbenzene	U		13	45	µg/Kg-dry	1	10/23/2018 21:28
Styrene	U		24	79	µg/Kg-dry	1	10/23/2018 21:28
tert-Butylbenzene	U		15	50	µg/Kg-dry	1	10/23/2018 21:28
Tetrachloroethene	**150**		**17**	**55**	**µg/Kg-dry**	1	10/23/2018 21:28
Toluene	U		11	37	µg/Kg-dry	1	10/23/2018 21:28
trans-1,2-Dichloroethene	U		9.5	32	µg/Kg-dry	1	10/23/2018 21:28
trans-1,3-Dichloropropene	U		6.0	20	µg/Kg-dry	1	10/23/2018 21:28
Trichloroethene	U		9.0	30	µg/Kg-dry	1	10/23/2018 21:28
Trichlorofluoromethane	U		6.5	22	µg/Kg-dry	1	10/23/2018 21:28
Vinyl chloride	U		11	36	µg/Kg-dry	1	10/23/2018 21:28
Xylenes, Total	**36**	J	**26**	**87**	**µg/Kg-dry**	1	10/23/2018 21:28
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	10/23/2018 21:28
Surr: 4-Bromofluorobenzene	*99.6*			*70-130*	*%REC*	1	10/23/2018 21:28
Surr: Dibromofluoromethane	*96.0*			*70-130*	*%REC*	1	10/23/2018 21:28
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	10/23/2018 21:28
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**5.9**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 0.5-4.0
Collection Date: 10/16/2018 01:50 PM

Work Order: 18101308
Lab ID: 18101308-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.4	28	µg/Kg-dry	1	10/23/2018 21:44
1,1,1-Trichloroethane	U		9.3	31	µg/Kg-dry	1	10/23/2018 21:44
1,1,2,2-Tetrachloroethane	U		7.9	26	µg/Kg-dry	1	10/23/2018 21:44
1,1,2-Trichloroethane	U		9.8	33	µg/Kg-dry	1	10/23/2018 21:44
1,1-Dichloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 21:44
1,1-Dichloroethene	U		8.8	29	µg/Kg-dry	1	10/23/2018 21:44
1,1-Dichloropropene	U		14	48	µg/Kg-dry	1	10/23/2018 21:44
1,2,3-Trichlorobenzene	U		14	48	µg/Kg-dry	1	10/23/2018 21:44
1,2,3-Trichloropropane	U		22	73	µg/Kg-dry	1	10/23/2018 21:44
1,2,4-Trichlorobenzene	U		24	80	µg/Kg-dry	1	10/23/2018 21:44
1,2,4-Trimethylbenzene	U		6.6	22	µg/Kg-dry	1	10/23/2018 21:44
1,2-Dibromo-3-chloropropane	U		13	44	µg/Kg-dry	1	10/23/2018 21:44
1,2-Dibromoethane	U		11	36	µg/Kg-dry	1	10/23/2018 21:44
1,2-Dichlorobenzene	U		9.7	32	µg/Kg-dry	1	10/23/2018 21:44
1,2-Dichloroethane	U		8.9	30	µg/Kg-dry	1	10/23/2018 21:44
1,2-Dichloropropane	U		9.0	30	µg/Kg-dry	1	10/23/2018 21:44
1,3,5-Trimethylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 21:44
1,3-Dichlorobenzene	U		11	35	µg/Kg-dry	1	10/23/2018 21:44
1,3-Dichloropropane	U		9.1	30	µg/Kg-dry	1	10/23/2018 21:44
1,4-Dichlorobenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 21:44
2,2-Dichloropropane	U		12	40	µg/Kg-dry	1	10/23/2018 21:44
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 21:44
2-Chlorotoluene	U		9.8	33	µg/Kg-dry	1	10/23/2018 21:44
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:44
4-Chlorotoluene	U		7.2	24	µg/Kg-dry	1	10/23/2018 21:44
4-Methyl-2-pentanone	U		24	80	µg/Kg-dry	1	10/23/2018 21:44
Acetone	U		59	200	µg/Kg-dry	1	10/23/2018 21:44
Benzene	U		7.4	25	µg/Kg-dry	1	10/23/2018 21:44
Bromobenzene	U		15	49	µg/Kg-dry	1	10/23/2018 21:44
Bromochloromethane	U		15	49	µg/Kg-dry	1	10/23/2018 21:44
Bromodichloromethane	U		8.8	29	µg/Kg-dry	1	10/23/2018 21:44
Bromoform	U		12	39	µg/Kg-dry	1	10/23/2018 21:44
Bromomethane	U		14	47	µg/Kg-dry	1	10/23/2018 21:44
Carbon tetrachloride	U		5.8	19	µg/Kg-dry	1	10/23/2018 21:44
Chlorobenzene	U		9.8	33	µg/Kg-dry	1	10/23/2018 21:44
Chloroethane	U		21	69	µg/Kg-dry	1	10/23/2018 21:44
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 21:44
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 21:44

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 0.5-4.0
Collection Date: 10/16/2018 01:50 PM

Work Order: 18101308
Lab ID: 18101308-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.2	31	µg/Kg-dry	1	10/23/2018 21:44
cis-1,3-Dichloropropene	U		13	42	µg/Kg-dry	1	10/23/2018 21:44
Dibromochloromethane	U		7.5	25	µg/Kg-dry	1	10/23/2018 21:44
Dibromomethane	U		18	60	µg/Kg-dry	1	10/23/2018 21:44
Dichlorodifluoromethane	U		14	48	µg/Kg-dry	1	10/23/2018 21:44
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 21:44
Ethylbenzene	U		7.6	25	µg/Kg-dry	1	10/23/2018 21:44
Hexachlorobutadiene	U		21	69	µg/Kg-dry	1	10/23/2018 21:44
Isopropylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 21:44
m,p-Xylene	U		15	49	µg/Kg-dry	1	10/23/2018 21:44
Methyl tert-butyl ether	U		11	35	µg/Kg-dry	1	10/23/2018 21:44
Methylene chloride	U		15	50	µg/Kg-dry	1	10/23/2018 21:44
Naphthalene	U		5.6	19	µg/Kg-dry	1	10/23/2018 21:44
n-Butylbenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 21:44
n-Propylbenzene	U		10	35	µg/Kg-dry	1	10/23/2018 21:44
o-Xylene	U		11	35	µg/Kg-dry	1	10/23/2018 21:44
p-Isopropyltoluene	U		13	42	µg/Kg-dry	1	10/23/2018 21:44
sec-Butylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 21:44
Styrene	U		23	77	µg/Kg-dry	1	10/23/2018 21:44
tert-Butylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 21:44
Tetrachloroethene	**670**		**16**	**54**	**µg/Kg-dry**	1	10/23/2018 21:44
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 21:44
trans-1,2-Dichloroethene	U		9.2	31	µg/Kg-dry	1	10/23/2018 21:44
trans-1,3-Dichloropropene	U		5.8	20	µg/Kg-dry	1	10/23/2018 21:44
Trichloroethene	U		8.7	29	µg/Kg-dry	1	10/23/2018 21:44
Trichlorofluoromethane	U		6.3	21	µg/Kg-dry	1	10/23/2018 21:44
Vinyl chloride	U		10	35	µg/Kg-dry	1	10/23/2018 21:44
Xylenes, Total	U		25	84	µg/Kg-dry	1	10/23/2018 21:44
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	10/23/2018 21:44
Surr: 4-Bromofluorobenzene	*97.0*			*70-130*	*%REC*	1	10/23/2018 21:44
Surr: Dibromofluoromethane	*95.0*			*70-130*	*%REC*	1	10/23/2018 21:44
Surr: Toluene-d8	*98.6*			*70-130*	*%REC*	1	10/23/2018 21:44
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**4.3**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 8.0-10.0
Collection Date: 10/16/2018 01:30 PM

Work Order: 18101308
Lab ID: 18101308-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 22:00
1,1,1-Trichloroethane	U		9.3	31	µg/Kg-dry	1	10/23/2018 22:00
1,1,2,2-Tetrachloroethane	U		7.9	26	µg/Kg-dry	1	10/23/2018 22:00
1,1,2-Trichloroethane	U		9.7	32	µg/Kg-dry	1	10/23/2018 22:00
1,1-Dichloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 22:00
1,1-Dichloroethene	U		8.7	29	µg/Kg-dry	1	10/23/2018 22:00
1,1-Dichloropropene	U		14	48	µg/Kg-dry	1	10/23/2018 22:00
1,2,3-Trichlorobenzene	U		14	48	µg/Kg-dry	1	10/23/2018 22:00
1,2,3-Trichloropropane	U		22	72	µg/Kg-dry	1	10/23/2018 22:00
1,2,4-Trichlorobenzene	U		24	80	µg/Kg-dry	1	10/23/2018 22:00
1,2,4-Trimethylbenzene	U		6.5	22	µg/Kg-dry	1	10/23/2018 22:00
1,2-Dibromo-3-chloropropane	U		13	44	µg/Kg-dry	1	10/23/2018 22:00
1,2-Dibromoethane	U		11	36	µg/Kg-dry	1	10/23/2018 22:00
1,2-Dichlorobenzene	U		9.7	32	µg/Kg-dry	1	10/23/2018 22:00
1,2-Dichloroethane	U		8.9	30	µg/Kg-dry	1	10/23/2018 22:00
1,2-Dichloropropane	U		9.0	30	µg/Kg-dry	1	10/23/2018 22:00
1,3,5-Trimethylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 22:00
1,3-Dichlorobenzene	U		10	35	µg/Kg-dry	1	10/23/2018 22:00
1,3-Dichloropropane	U		9.1	30	µg/Kg-dry	1	10/23/2018 22:00
1,4-Dichlorobenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 22:00
2,2-Dichloropropane	U		12	40	µg/Kg-dry	1	10/23/2018 22:00
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 22:00
2-Chlorotoluene	U		9.8	33	µg/Kg-dry	1	10/23/2018 22:00
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 22:00
4-Chlorotoluene	U		7.1	24	µg/Kg-dry	1	10/23/2018 22:00
4-Methyl-2-pentanone	U		24	79	µg/Kg-dry	1	10/23/2018 22:00
Acetone	U		59	200	µg/Kg-dry	1	10/23/2018 22:00
Benzene	U		7.4	25	µg/Kg-dry	1	10/23/2018 22:00
Bromobenzene	U		15	49	µg/Kg-dry	1	10/23/2018 22:00
Bromochloromethane	U		15	49	µg/Kg-dry	1	10/23/2018 22:00
Bromodichloromethane	U		8.7	29	µg/Kg-dry	1	10/23/2018 22:00
Bromoform	U		12	38	µg/Kg-dry	1	10/23/2018 22:00
Bromomethane	U		14	47	µg/Kg-dry	1	10/23/2018 22:00
Carbon tetrachloride	U		5.8	19	µg/Kg-dry	1	10/23/2018 22:00
Chlorobenzene	U		9.8	33	µg/Kg-dry	1	10/23/2018 22:00
Chloroethane	U		21	69	µg/Kg-dry	1	10/23/2018 22:00
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 22:00
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 22:00

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 8.0-10.0
Collection Date: 10/16/2018 01:30 PM

Work Order: 18101308
Lab ID: 18101308-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.2	31	µg/Kg-dry	1	10/23/2018 22:00
cis-1,3-Dichloropropene	U		12	42	µg/Kg-dry	1	10/23/2018 22:00
Dibromochloromethane	U		7.4	25	µg/Kg-dry	1	10/23/2018 22:00
Dibromomethane	U		18	60	µg/Kg-dry	1	10/23/2018 22:00
Dichlorodifluoromethane	U		14	48	µg/Kg-dry	1	10/23/2018 22:00
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 22:00
Ethylbenzene	U		7.6	25	µg/Kg-dry	1	10/23/2018 22:00
Hexachlorobutadiene	U		21	69	µg/Kg-dry	1	10/23/2018 22:00
Isopropylbenzene	U		13	42	µg/Kg-dry	1	10/23/2018 22:00
m,p-Xylene	U		15	49	µg/Kg-dry	1	10/23/2018 22:00
Methyl tert-butyl ether	U		11	35	µg/Kg-dry	1	10/23/2018 22:00
Methylene chloride	U		15	50	µg/Kg-dry	1	10/23/2018 22:00
Naphthalene	U		5.6	19	µg/Kg-dry	1	10/23/2018 22:00
n-Butylbenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 22:00
n-Propylbenzene	U		10	35	µg/Kg-dry	1	10/23/2018 22:00
o-Xylene	U		11	35	µg/Kg-dry	1	10/23/2018 22:00
p-Isopropyltoluene	U		12	42	µg/Kg-dry	1	10/23/2018 22:00
sec-Butylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 22:00
Styrene	U		23	77	µg/Kg-dry	1	10/23/2018 22:00
tert-Butylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 22:00
Tetrachloroethene	U		16	54	µg/Kg-dry	1	10/23/2018 22:00
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 22:00
trans-1,2-Dichloroethene	U		9.2	31	µg/Kg-dry	1	10/23/2018 22:00
trans-1,3-Dichloropropene	U		5.8	19	µg/Kg-dry	1	10/23/2018 22:00
Trichloroethene	U		8.7	29	µg/Kg-dry	1	10/23/2018 22:00
Trichlorofluoromethane	U		6.3	21	µg/Kg-dry	1	10/23/2018 22:00
Vinyl chloride	U		10	34	µg/Kg-dry	1	10/23/2018 22:00
Xylenes, Total	U		25	84	µg/Kg-dry	1	10/23/2018 22:00
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	10/23/2018 22:00
Surr: 4-Bromofluorobenzene	*93.6*			*70-130*	*%REC*	1	10/23/2018 22:00
Surr: Dibromofluoromethane	*97.2*			*70-130*	*%REC*	1	10/23/2018 22:00
Surr: Toluene-d8	*99.2*			*70-130*	*%REC*	1	10/23/2018 22:00
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**4.1**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 0.5-2.0
Collection Date: 10/17/2018 09:20 AM

Work Order: 18101308
Lab ID: 18101308-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		8.7	29	µg/Kg-dry	1	10/24/2018 17:37
1,1,1-Trichloroethane	U		9.6	32	µg/Kg-dry	1	10/24/2018 17:37
1,1,2,2-Tetrachloroethane	U		8.2	27	µg/Kg-dry	1	10/24/2018 17:37
1,1,2-Trichloroethane	U		10	34	µg/Kg-dry	1	10/24/2018 17:37
1,1-Dichloroethane	**33**		**8.6**	**29**	**µg/Kg-dry**	1	10/24/2018 17:37
1,1-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/24/2018 17:37
1,1-Dichloropropene	U		15	50	µg/Kg-dry	1	10/24/2018 17:37
1,2,3-Trichlorobenzene	U		15	50	µg/Kg-dry	1	10/24/2018 17:37
1,2,3-Trichloropropane	U		23	75	µg/Kg-dry	1	10/24/2018 17:37
1,2,4-Trichlorobenzene	U		25	83	µg/Kg-dry	1	10/24/2018 17:37
1,2,4-Trimethylbenzene	**6,000**		**27**	**91**	**µg/Kg-dry**	4	10/24/2018 17:21
1,2-Dibromo-3-chloropropane	U		14	46	µg/Kg-dry	1	10/24/2018 17:37
1,2-Dibromoethane	U		11	38	µg/Kg-dry	1	10/24/2018 17:37
1,2-Dichlorobenzene	**77**		**10**	**33**	**µg/Kg-dry**	1	10/24/2018 17:37
1,2-Dichloroethane	U		9.2	31	µg/Kg-dry	1	10/24/2018 17:37
1,2-Dichloropropane	U		9.3	31	µg/Kg-dry	1	10/24/2018 17:37
1,3,5-Trimethylbenzene	**2,300**		**15**	**49**	**µg/Kg-dry**	1	10/24/2018 17:37
1,3-Dichlorobenzene	U		11	36	µg/Kg-dry	1	10/24/2018 17:37
1,3-Dichloropropane	U		9.4	31	µg/Kg-dry	1	10/24/2018 17:37
1,4-Dichlorobenzene	U		8.8	29	µg/Kg-dry	1	10/24/2018 17:37
2,2-Dichloropropane	U		12	41	µg/Kg-dry	1	10/24/2018 17:37
2-Butanone	U		46	150	µg/Kg-dry	1	10/24/2018 17:37
2-Chlorotoluene	U		10	34	µg/Kg-dry	1	10/24/2018 17:37
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/24/2018 17:37
4-Chlorotoluene	U		7.4	25	µg/Kg-dry	1	10/24/2018 17:37
4-Methyl-2-pentanone	U		25	82	µg/Kg-dry	1	10/24/2018 17:37
Acetone	**67**	J	**61**	**200**	**µg/Kg-dry**	1	10/24/2018 17:37
Benzene	U		7.6	25	µg/Kg-dry	1	10/24/2018 17:37
Bromobenzene	U		15	51	µg/Kg-dry	1	10/24/2018 17:37
Bromochloromethane	U		15	50	µg/Kg-dry	1	10/24/2018 17:37
Bromodichloromethane	U		9.1	30	µg/Kg-dry	1	10/24/2018 17:37
Bromoform	U		12	40	µg/Kg-dry	1	10/24/2018 17:37
Bromomethane	U		15	49	µg/Kg-dry	1	10/24/2018 17:37
Carbon tetrachloride	U		6.0	20	µg/Kg-dry	1	10/24/2018 17:37
Chlorobenzene	U		10	34	µg/Kg-dry	1	10/24/2018 17:37
Chloroethane	U		22	72	µg/Kg-dry	1	10/24/2018 17:37
Chloroform	U		11	38	µg/Kg-dry	1	10/24/2018 17:37
Chloromethane	U		14	46	µg/Kg-dry	1	10/24/2018 17:37

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 0.5-2.0
Collection Date: 10/17/2018 09:20 AM

Work Order: 18101308
Lab ID: 18101308-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**270**		**9.6**	**32**	**µg/Kg-dry**	1	10/24/2018 17:37
cis-1,3-Dichloropropene	U		13	43	µg/Kg-dry	1	10/24/2018 17:37
Dibromochloromethane	U		7.7	26	µg/Kg-dry	1	10/24/2018 17:37
Dibromomethane	U		19	62	µg/Kg-dry	1	10/24/2018 17:37
Dichlorodifluoromethane	U		15	50	µg/Kg-dry	1	10/24/2018 17:37
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/24/2018 17:37
Ethylbenzene	**3,100**		**7.9**	**26**	**µg/Kg-dry**	1	10/24/2018 17:37
Hexachlorobutadiene	U		21	71	µg/Kg-dry	1	10/24/2018 17:37
Isopropylbenzene	**250**		**13**	**44**	**µg/Kg-dry**	1	10/24/2018 17:37
m,p-Xylene	**14,000**		**61**	**200**	**µg/Kg-dry**	4	10/24/2018 17:21
Methyl tert-butyl ether	U		11	37	µg/Kg-dry	1	10/24/2018 17:37
Methylene chloride	U		15	52	µg/Kg-dry	1	10/24/2018 17:37
Naphthalene	**2,200**		**5.8**	**19**	**µg/Kg-dry**	1	10/24/2018 17:37
n-Butylbenzene	U		8.8	29	µg/Kg-dry	1	10/24/2018 17:37
n-Propylbenzene	**430**		**11**	**36**	**µg/Kg-dry**	1	10/24/2018 17:37
o-Xylene	**7,100**		**44**	**150**	**µg/Kg-dry**	4	10/24/2018 17:21
p-Isopropyltoluene	**340**		**13**	**43**	**µg/Kg-dry**	1	10/24/2018 17:37
sec-Butylbenzene	**220**		**13**	**45**	**µg/Kg-dry**	1	10/24/2018 17:37
Styrene	U		24	80	µg/Kg-dry	1	10/24/2018 17:37
tert-Butylbenzene	U		15	50	µg/Kg-dry	1	10/24/2018 17:37
Tetrachloroethene	**280**		**17**	**56**	**µg/Kg-dry**	1	10/24/2018 17:37
Toluene	**170**		**11**	**37**	**µg/Kg-dry**	1	10/24/2018 17:37
trans-1,2-Dichloroethene	**16**	J	**9.6**	**32**	**µg/Kg-dry**	1	10/24/2018 17:37
trans-1,3-Dichloropropene	U		6.0	20	µg/Kg-dry	1	10/24/2018 17:37
Trichloroethene	**51**		**9.0**	**30**	**µg/Kg-dry**	1	10/24/2018 17:37
Trichlorofluoromethane	U		6.5	22	µg/Kg-dry	1	10/24/2018 17:37
Vinyl chloride	U		11	36	µg/Kg-dry	1	10/24/2018 17:37
Xylenes, Total	**21,000**		**100**	**350**	**µg/Kg-dry**	4	10/24/2018 17:21
Surr: 1,2-Dichloroethane-d4	*98.6*			*70-130*	*%REC*	4	10/24/2018 17:21
Surr: 1,2-Dichloroethane-d4	*99.2*			*70-130*	*%REC*	1	10/24/2018 17:37
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	4	10/24/2018 17:21
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	10/24/2018 17:37
Surr: Dibromofluoromethane	*95.4*			*70-130*	*%REC*	4	10/24/2018 17:21
Surr: Dibromofluoromethane	*94.6*			*70-130*	*%REC*	1	10/24/2018 17:37
Surr: Toluene-d8	*93.4*			*70-130*	*%REC*	4	10/24/2018 17:21
Surr: Toluene-d8	*96.9*			*70-130*	*%REC*	1	10/24/2018 17:37
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**6.0**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 4.0-6.0
Collection Date: 10/17/2018 09:25 AM

Work Order: 18101308
Lab ID: 18101308-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **PM**
1,1,1,2-Tetrachloroethane	U		8.2	27	µg/Kg-dry	1	10/30/2018 17:29
1,1,1-Trichloroethane	U		9.2	31	µg/Kg-dry	1	10/30/2018 17:29
1,1,2,2-Tetrachloroethane	U		7.7	26	µg/Kg-dry	1	10/30/2018 17:29
1,1,2-Trichloroethane	U		9.6	32	µg/Kg-dry	1	10/30/2018 17:29
1,1-Dichloroethane	U		8.2	27	µg/Kg-dry	1	10/30/2018 17:29
1,1-Dichloroethene	U		8.6	29	µg/Kg-dry	1	10/30/2018 17:29
1,1-Dichloropropene	U		14	47	µg/Kg-dry	1	10/30/2018 17:29
1,2,3-Trichlorobenzene	U		14	47	µg/Kg-dry	1	10/30/2018 17:29
1,2,3-Trichloropropane	U		21	71	µg/Kg-dry	1	10/30/2018 17:29
1,2,4-Trichlorobenzene	U		24	79	µg/Kg-dry	1	10/30/2018 17:29
1,2,4-Trimethylbenzene	U		6.4	22	µg/Kg-dry	1	10/30/2018 17:29
1,2-Dibromo-3-chloropropane	U		13	43	µg/Kg-dry	1	10/30/2018 17:29
1,2-Dibromoethane	U		11	36	µg/Kg-dry	1	10/30/2018 17:29
1,2-Dichlorobenzene	U		9.5	32	µg/Kg-dry	1	10/30/2018 17:29
1,2-Dichloroethane	U		8.7	29	µg/Kg-dry	1	10/30/2018 17:29
1,2-Dichloropropane	U		8.9	30	µg/Kg-dry	1	10/30/2018 17:29
1,3,5-Trimethylbenzene	U		14	47	µg/Kg-dry	1	10/30/2018 17:29
1,3-Dichlorobenzene	U		10	34	µg/Kg-dry	1	10/30/2018 17:29
1,3-Dichloropropane	U		8.9	30	µg/Kg-dry	1	10/30/2018 17:29
1,4-Dichlorobenzene	U		8.4	28	µg/Kg-dry	1	10/30/2018 17:29
2,2-Dichloropropane	U		12	39	µg/Kg-dry	1	10/30/2018 17:29
2-Butanone	U		43	140	µg/Kg-dry	1	10/30/2018 17:29
2-Chlorotoluene	U		9.6	32	µg/Kg-dry	1	10/30/2018 17:29
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/30/2018 17:29
4-Chlorotoluene	U		7.0	23	µg/Kg-dry	1	10/30/2018 17:29
4-Methyl-2-pentanone	U		23	78	µg/Kg-dry	1	10/30/2018 17:29
Acetone	U		58	190	µg/Kg-dry	1	10/30/2018 17:29
Benzene	U		7.3	24	µg/Kg-dry	1	10/30/2018 17:29
Bromobenzene	U		15	49	µg/Kg-dry	1	10/30/2018 17:29
Bromochloromethane	U		14	48	µg/Kg-dry	1	10/30/2018 17:29
Bromodichloromethane	U		8.6	29	µg/Kg-dry	1	10/30/2018 17:29
Bromoform	U		11	38	µg/Kg-dry	1	10/30/2018 17:29
Bromomethane	U		14	46	µg/Kg-dry	1	10/30/2018 17:29
Carbon tetrachloride	U		5.7	19	µg/Kg-dry	1	10/30/2018 17:29
Chlorobenzene	U		9.6	32	µg/Kg-dry	1	10/30/2018 17:29
Chloroethane	U		20	68	µg/Kg-dry	1	10/30/2018 17:29
Chloroform	U		11	36	µg/Kg-dry	1	10/30/2018 17:29
Chloromethane	U		13	43	µg/Kg-dry	1	10/30/2018 17:29

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 4.0-6.0
Collection Date: 10/17/2018 09:25 AM

Work Order: 18101308
Lab ID: 18101308-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/30/2018 17:29
cis-1,3-Dichloropropene	U		12	41	µg/Kg-dry	1	10/30/2018 17:29
Dibromochloromethane	U		7.3	24	µg/Kg-dry	1	10/30/2018 17:29
Dibromomethane	U		18	59	µg/Kg-dry	1	10/30/2018 17:29
Dichlorodifluoromethane	U		14	47	µg/Kg-dry	1	10/30/2018 17:29
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/30/2018 17:29
Ethylbenzene	U		7.5	25	µg/Kg-dry	1	10/30/2018 17:29
Hexachlorobutadiene	U		20	68	µg/Kg-dry	1	10/30/2018 17:29
Isopropylbenzene	U		13	42	µg/Kg-dry	1	10/30/2018 17:29
m,p-Xylene	U		14	48	µg/Kg-dry	1	10/30/2018 17:29
Methyl tert-butyl ether	U		10	35	µg/Kg-dry	1	10/30/2018 17:29
Methylene chloride	U		15	49	µg/Kg-dry	1	10/30/2018 17:29
Naphthalene	U		5.5	18	µg/Kg-dry	1	10/30/2018 17:29
n-Butylbenzene	U		8.3	28	µg/Kg-dry	1	10/30/2018 17:29
n-Propylbenzene	U		10	34	µg/Kg-dry	1	10/30/2018 17:29
o-Xylene	U		10	35	µg/Kg-dry	1	10/30/2018 17:29
p-Isopropyltoluene	U		12	41	µg/Kg-dry	1	10/30/2018 17:29
sec-Butylbenzene	U		13	42	µg/Kg-dry	1	10/30/2018 17:29
Styrene	U		23	76	µg/Kg-dry	1	10/30/2018 17:29
tert-Butylbenzene	U		14	47	µg/Kg-dry	1	10/30/2018 17:29
Tetrachloroethene	U		16	53	µg/Kg-dry	1	10/30/2018 17:29
Toluene	U		11	35	µg/Kg-dry	1	10/30/2018 17:29
trans-1,2-Dichloroethene	U		9.1	30	µg/Kg-dry	1	10/30/2018 17:29
trans-1,3-Dichloropropene	U		5.7	19	µg/Kg-dry	1	10/30/2018 17:29
Trichloroethene	U		8.6	29	µg/Kg-dry	1	10/30/2018 17:29
Trichlorofluoromethane	U		6.2	21	µg/Kg-dry	1	10/30/2018 17:29
Vinyl chloride	U		10	34	µg/Kg-dry	1	10/30/2018 17:29
Xylenes, Total	U		25	83	µg/Kg-dry	1	10/30/2018 17:29
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	10/30/2018 17:29
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	1	10/30/2018 17:29
Surr: Dibromofluoromethane	*97.6*			*70-130*	*%REC*	1	10/30/2018 17:29
Surr: Toluene-d8	*98.6*			*70-130*	*%REC*	1	10/30/2018 17:29
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**3.1**		**0.025**	**0.050**	**% of sample**	1	10/29/2018 16:15

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 12.0-14.0
Collection Date: 10/17/2018 09:30 AM

Work Order: 18101308
Lab ID: 18101308-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **WH**
1,1,1,2-Tetrachloroethane	U		9.4	31	µg/Kg-dry	1	10/24/2018 17:06
1,1,1-Trichloroethane	U		10	35	µg/Kg-dry	1	10/24/2018 17:06
1,1,2,2-Tetrachloroethane	U		8.8	29	µg/Kg-dry	1	10/24/2018 17:06
1,1,2-Trichloroethane	U		11	37	µg/Kg-dry	1	10/24/2018 17:06
1,1-Dichloroethane	U		9.3	31	µg/Kg-dry	1	10/24/2018 17:06
1,1-Dichloroethene	U		9.8	33	µg/Kg-dry	1	10/24/2018 17:06
1,1-Dichloropropene	U		16	54	µg/Kg-dry	1	10/24/2018 17:06
1,2,3-Trichlorobenzene	U		16	54	µg/Kg-dry	1	10/24/2018 17:06
1,2,3-Trichloropropane	U		24	82	µg/Kg-dry	1	10/24/2018 17:06
1,2,4-Trichlorobenzene	U		27	90	µg/Kg-dry	1	10/24/2018 17:06
1,2,4-Trimethylbenzene	U		7.4	25	µg/Kg-dry	1	10/24/2018 17:06
1,2-Dibromo-3-chloropropane	U		15	50	µg/Kg-dry	1	10/24/2018 17:06
1,2-Dibromoethane	U		12	41	µg/Kg-dry	1	10/24/2018 17:06
1,2-Dichlorobenzene	U		11	36	µg/Kg-dry	1	10/24/2018 17:06
1,2-Dichloroethane	U		10	33	µg/Kg-dry	1	10/24/2018 17:06
1,2-Dichloropropane	U		10	34	µg/Kg-dry	1	10/24/2018 17:06
1,3,5-Trimethylbenzene	U		16	54	µg/Kg-dry	1	10/24/2018 17:06
1,3-Dichlorobenzene	U		12	39	µg/Kg-dry	1	10/24/2018 17:06
1,3-Dichloropropane	U		10	34	µg/Kg-dry	1	10/24/2018 17:06
1,4-Dichlorobenzene	U		9.6	32	µg/Kg-dry	1	10/24/2018 17:06
2,2-Dichloropropane	U		13	45	µg/Kg-dry	1	10/24/2018 17:06
2-Butanone	U		49	160	µg/Kg-dry	1	10/24/2018 17:06
2-Chlorotoluene	U		11	37	µg/Kg-dry	1	10/24/2018 17:06
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/24/2018 17:06
4-Chlorotoluene	U		8.0	27	µg/Kg-dry	1	10/24/2018 17:06
4-Methyl-2-pentanone	U		27	89	µg/Kg-dry	1	10/24/2018 17:06
Acetone	U		66	220	µg/Kg-dry	1	10/24/2018 17:06
Benzene	U		8.3	28	µg/Kg-dry	1	10/24/2018 17:06
Bromobenzene	U		17	55	µg/Kg-dry	1	10/24/2018 17:06
Bromochloromethane	U		16	55	µg/Kg-dry	1	10/24/2018 17:06
Bromodichloromethane	U		9.8	33	µg/Kg-dry	1	10/24/2018 17:06
Bromoform	U		13	43	µg/Kg-dry	1	10/24/2018 17:06
Bromomethane	U		16	53	µg/Kg-dry	1	10/24/2018 17:06
Carbon tetrachloride	U		6.5	22	µg/Kg-dry	1	10/24/2018 17:06
Chlorobenzene	U		11	37	µg/Kg-dry	1	10/24/2018 17:06
Chloroethane	U		23	78	µg/Kg-dry	1	10/24/2018 17:06
Chloroform	U		12	41	µg/Kg-dry	1	10/24/2018 17:06
Chloromethane	U		15	49	µg/Kg-dry	1	10/24/2018 17:06

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 12.0-14.0
Collection Date: 10/17/2018 09:30 AM

Work Order: 18101308
Lab ID: 18101308-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		10	35	µg/Kg-dry	1	10/24/2018 17:06
cis-1,3-Dichloropropene	U		14	47	µg/Kg-dry	1	10/24/2018 17:06
Dibromochloromethane	U		8.4	28	µg/Kg-dry	1	10/24/2018 17:06
Dibromomethane	U		20	67	µg/Kg-dry	1	10/24/2018 17:06
Dichlorodifluoromethane	U		16	54	µg/Kg-dry	1	10/24/2018 17:06
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/24/2018 17:06
Ethylbenzene	U		8.5	28	µg/Kg-dry	1	10/24/2018 17:06
Hexachlorobutadiene	U		23	77	µg/Kg-dry	1	10/24/2018 17:06
Isopropylbenzene	U		14	48	µg/Kg-dry	1	10/24/2018 17:06
m,p-Xylene	U		16	55	µg/Kg-dry	1	10/24/2018 17:06
Methyl tert-butyl ether	U		12	40	µg/Kg-dry	1	10/24/2018 17:06
Methylene chloride	U		17	56	µg/Kg-dry	1	10/24/2018 17:06
Naphthalene	U		6.3	21	µg/Kg-dry	1	10/24/2018 17:06
n-Butylbenzene	U		9.5	32	µg/Kg-dry	1	10/24/2018 17:06
n-Propylbenzene	U		12	39	µg/Kg-dry	1	10/24/2018 17:06
o-Xylene	U		12	40	µg/Kg-dry	1	10/24/2018 17:06
p-Isopropyltoluene	U		14	47	µg/Kg-dry	1	10/24/2018 17:06
sec-Butylbenzene	U		15	49	µg/Kg-dry	1	10/24/2018 17:06
Styrene	U		26	86	µg/Kg-dry	1	10/24/2018 17:06
tert-Butylbenzene	U		16	54	µg/Kg-dry	1	10/24/2018 17:06
Tetrachloroethene	U		18	60	µg/Kg-dry	1	10/24/2018 17:06
Toluene	U		12	40	µg/Kg-dry	1	10/24/2018 17:06
trans-1,2-Dichloroethene	U		10	35	µg/Kg-dry	1	10/24/2018 17:06
trans-1,3-Dichloropropene	U		6.6	22	µg/Kg-dry	1	10/24/2018 17:06
Trichloroethene	U		9.8	33	µg/Kg-dry	1	10/24/2018 17:06
Trichlorofluoromethane	U		7.1	23	µg/Kg-dry	1	10/24/2018 17:06
Vinyl chloride	U		12	39	µg/Kg-dry	1	10/24/2018 17:06
Xylenes, Total	U		28	94	µg/Kg-dry	1	10/24/2018 17:06
Surr: 1,2-Dichloroethane-d4	*98.4*			*70-130*	*%REC*	1	10/24/2018 17:06
Surr: 4-Bromofluorobenzene	*99.8*			*70-130*	*%REC*	1	10/24/2018 17:06
Surr: Dibromofluoromethane	*96.6*			*70-130*	*%REC*	1	10/24/2018 17:06
Surr: Toluene-d8	*95.2*			*70-130*	*%REC*	1	10/24/2018 17:06
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**10**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 0.5-2.0
Collection Date: 10/18/2018 09:00 AM

Work Order: 18101308
Lab ID: 18101308-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.4	28	µg/Kg-dry	1	10/23/2018 23:02
1,1,1-Trichloroethane	U		9.4	31	µg/Kg-dry	1	10/23/2018 23:02
1,1,2,2-Tetrachloroethane	U		7.9	26	µg/Kg-dry	1	10/23/2018 23:02
1,1,2-Trichloroethane	U		9.8	33	µg/Kg-dry	1	10/23/2018 23:02
1,1-Dichloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 23:02
1,1-Dichloroethene	U		8.8	29	µg/Kg-dry	1	10/23/2018 23:02
1,1-Dichloropropene	U		14	48	µg/Kg-dry	1	10/23/2018 23:02
1,2,3-Trichlorobenzene	U		14	48	µg/Kg-dry	1	10/23/2018 23:02
1,2,3-Trichloropropane	U		22	73	µg/Kg-dry	1	10/23/2018 23:02
1,2,4-Trichlorobenzene	U		24	81	µg/Kg-dry	1	10/23/2018 23:02
1,2,4-Trimethylbenzene	U		6.6	22	µg/Kg-dry	1	10/23/2018 23:02
1,2-Dibromo-3-chloropropane	U		13	44	µg/Kg-dry	1	10/23/2018 23:02
1,2-Dibromoethane	U		11	37	µg/Kg-dry	1	10/23/2018 23:02
1,2-Dichlorobenzene	U		9.8	32	µg/Kg-dry	1	10/23/2018 23:02
1,2-Dichloroethane	U		8.9	30	µg/Kg-dry	1	10/23/2018 23:02
1,2-Dichloropropane	U		9.1	30	µg/Kg-dry	1	10/23/2018 23:02
1,3,5-Trimethylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 23:02
1,3-Dichlorobenzene	U		11	35	µg/Kg-dry	1	10/23/2018 23:02
1,3-Dichloropropane	U		9.1	30	µg/Kg-dry	1	10/23/2018 23:02
1,4-Dichlorobenzene	U		8.6	29	µg/Kg-dry	1	10/23/2018 23:02
2,2-Dichloropropane	U		12	40	µg/Kg-dry	1	10/23/2018 23:02
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 23:02
2-Chlorotoluene	U		9.8	33	µg/Kg-dry	1	10/23/2018 23:02
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:02
4-Chlorotoluene	U		7.2	24	µg/Kg-dry	1	10/23/2018 23:02
4-Methyl-2-pentanone	U		24	80	µg/Kg-dry	1	10/23/2018 23:02
Acetone	U		59	200	µg/Kg-dry	1	10/23/2018 23:02
Benzene	U		7.4	25	µg/Kg-dry	1	10/23/2018 23:02
Bromobenzene	U		15	50	µg/Kg-dry	1	10/23/2018 23:02
Bromochloromethane	U		15	49	µg/Kg-dry	1	10/23/2018 23:02
Bromodichloromethane	U		8.8	29	µg/Kg-dry	1	10/23/2018 23:02
Bromoform	U		12	39	µg/Kg-dry	1	10/23/2018 23:02
Bromomethane	U		14	47	µg/Kg-dry	1	10/23/2018 23:02
Carbon tetrachloride	U		5.8	19	µg/Kg-dry	1	10/23/2018 23:02
Chlorobenzene	U		9.9	33	µg/Kg-dry	1	10/23/2018 23:02
Chloroethane	U		21	70	µg/Kg-dry	1	10/23/2018 23:02
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 23:02
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 23:02

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 0.5-2.0
Collection Date: 10/18/2018 09:00 AM

Work Order: 18101308
Lab ID: 18101308-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.3	31	µg/Kg-dry	1	10/23/2018 23:02
cis-1,3-Dichloropropene	U		13	42	µg/Kg-dry	1	10/23/2018 23:02
Dibromochloromethane	U		7.5	25	µg/Kg-dry	1	10/23/2018 23:02
Dibromomethane	U		18	60	µg/Kg-dry	1	10/23/2018 23:02
Dichlorodifluoromethane	U		15	48	µg/Kg-dry	1	10/23/2018 23:02
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:02
Ethylbenzene	U		7.6	25	µg/Kg-dry	1	10/23/2018 23:02
Hexachlorobutadiene	U		21	69	µg/Kg-dry	1	10/23/2018 23:02
Isopropylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 23:02
m,p-Xylene	U		15	49	µg/Kg-dry	1	10/23/2018 23:02
Methyl tert-butyl ether	U		11	36	µg/Kg-dry	1	10/23/2018 23:02
Methylene chloride	U		15	50	µg/Kg-dry	1	10/23/2018 23:02
Naphthalene	U		5.6	19	µg/Kg-dry	1	10/23/2018 23:02
n-Butylbenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 23:02
n-Propylbenzene	U		11	35	µg/Kg-dry	1	10/23/2018 23:02
o-Xylene	U		11	35	µg/Kg-dry	1	10/23/2018 23:02
p-Isopropyltoluene	U		13	42	µg/Kg-dry	1	10/23/2018 23:02
sec-Butylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 23:02
Styrene	U		23	77	µg/Kg-dry	1	10/23/2018 23:02
tert-Butylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 23:02
Tetrachloroethene	**320**		**16**	**54**	**µg/Kg-dry**	1	10/23/2018 23:02
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 23:02
trans-1,2-Dichloroethene	U		9.3	31	µg/Kg-dry	1	10/23/2018 23:02
trans-1,3-Dichloropropene	U		5.9	20	µg/Kg-dry	1	10/23/2018 23:02
Trichloroethene	U		8.8	29	µg/Kg-dry	1	10/23/2018 23:02
Trichlorofluoromethane	U		6.3	21	µg/Kg-dry	1	10/23/2018 23:02
Vinyl chloride	U		10	35	µg/Kg-dry	1	10/23/2018 23:02
Xylenes, Total	U		25	85	µg/Kg-dry	1	10/23/2018 23:02
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	1	10/23/2018 23:02
Surr: 4-Bromofluorobenzene	*98.2*			*70-130*	*%REC*	1	10/23/2018 23:02
Surr: Dibromofluoromethane	*96.8*			*70-130*	*%REC*	1	10/23/2018 23:02
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	10/23/2018 23:02
MOISTURE		Method: **SW3550C**					Analyst: **RBS**
Moisture	**4.5**		**0.025**	**0.050**	**% of sample**	1	10/22/2018 13:41

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 8.0-10.0
Collection Date: 10/18/2018 09:10 AM

Work Order: 18101308
Lab ID: 18101308-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		8.3	28	µg/Kg-dry	1	10/23/2018 23:18
1,1,1-Trichloroethane	U		9.2	31	µg/Kg-dry	1	10/23/2018 23:18
1,1,2,2-Tetrachloroethane	U		7.8	26	µg/Kg-dry	1	10/23/2018 23:18
1,1,2-Trichloroethane	U		9.7	32	µg/Kg-dry	1	10/23/2018 23:18
1,1-Dichloroethane	U		8.2	27	µg/Kg-dry	1	10/23/2018 23:18
1,1-Dichloroethene	U		8.7	29	µg/Kg-dry	1	10/23/2018 23:18
1,1-Dichloropropene	U		14	48	µg/Kg-dry	1	10/23/2018 23:18
1,2,3-Trichlorobenzene	U		14	47	µg/Kg-dry	1	10/23/2018 23:18
1,2,3-Trichloropropane	U		22	72	µg/Kg-dry	1	10/23/2018 23:18
1,2,4-Trichlorobenzene	U		24	80	µg/Kg-dry	1	10/23/2018 23:18
1,2,4-Trimethylbenzene	U		6.5	22	µg/Kg-dry	1	10/23/2018 23:18
1,2-Dibromo-3-chloropropane	U		13	44	µg/Kg-dry	1	10/23/2018 23:18
1,2-Dibromoethane	U		11	36	µg/Kg-dry	1	10/23/2018 23:18
1,2-Dichlorobenzene	U		9.6	32	µg/Kg-dry	1	10/23/2018 23:18
1,2-Dichloroethane	U		8.8	29	µg/Kg-dry	1	10/23/2018 23:18
1,2-Dichloropropane	U		8.9	30	µg/Kg-dry	1	10/23/2018 23:18
1,3,5-Trimethylbenzene	U		14	47	µg/Kg-dry	1	10/23/2018 23:18
1,3-Dichlorobenzene	U		10	35	µg/Kg-dry	1	10/23/2018 23:18
1,3-Dichloropropane	U		9.0	30	µg/Kg-dry	1	10/23/2018 23:18
1,4-Dichlorobenzene	U		8.5	28	µg/Kg-dry	1	10/23/2018 23:18
2,2-Dichloropropane	U		12	39	µg/Kg-dry	1	10/23/2018 23:18
2-Butanone	U		44	150	µg/Kg-dry	1	10/23/2018 23:18
2-Chlorotoluene	U		9.7	32	µg/Kg-dry	1	10/23/2018 23:18
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:18
4-Chlorotoluene	U		7.1	24	µg/Kg-dry	1	10/23/2018 23:18
4-Methyl-2-pentanone	U		24	79	µg/Kg-dry	1	10/23/2018 23:18
Acetone	U		59	200	µg/Kg-dry	1	10/23/2018 23:18
Benzene	U		7.3	24	µg/Kg-dry	1	10/23/2018 23:18
Bromobenzene	U		15	49	µg/Kg-dry	1	10/23/2018 23:18
Bromochloromethane	U		14	48	µg/Kg-dry	1	10/23/2018 23:18
Bromodichloromethane	U		8.7	29	µg/Kg-dry	1	10/23/2018 23:18
Bromoform	U		11	38	µg/Kg-dry	1	10/23/2018 23:18
Bromomethane	U		14	47	µg/Kg-dry	1	10/23/2018 23:18
Carbon tetrachloride	U		5.7	19	µg/Kg-dry	1	10/23/2018 23:18
Chlorobenzene	U		9.7	32	µg/Kg-dry	1	10/23/2018 23:18
Chloroethane	U		21	69	µg/Kg-dry	1	10/23/2018 23:18
Chloroform	U		11	37	µg/Kg-dry	1	10/23/2018 23:18
Chloromethane	U		13	44	µg/Kg-dry	1	10/23/2018 23:18

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 8.0-10.0
Collection Date: 10/18/2018 09:10 AM

Work Order: 18101308
Lab ID: 18101308-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		9.1	31	µg/Kg-dry	1	10/23/2018 23:18
cis-1,3-Dichloropropene	U		12	41	µg/Kg-dry	1	10/23/2018 23:18
Dibromochloromethane	U		7.4	25	µg/Kg-dry	1	10/23/2018 23:18
Dibromomethane	U		18	59	µg/Kg-dry	1	10/23/2018 23:18
Dichlorodifluoromethane	U		14	48	µg/Kg-dry	1	10/23/2018 23:18
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:18
Ethylbenzene	U		7.5	25	µg/Kg-dry	1	10/23/2018 23:18
Hexachlorobutadiene	U		21	68	µg/Kg-dry	1	10/23/2018 23:18
Isopropylbenzene	U		13	42	µg/Kg-dry	1	10/23/2018 23:18
m,p-Xylene	U		15	48	µg/Kg-dry	1	10/23/2018 23:18
Methyl tert-butyl ether	U		11	35	µg/Kg-dry	1	10/23/2018 23:18
Methylene chloride	U		15	49	µg/Kg-dry	1	10/23/2018 23:18
Naphthalene	U		5.5	18	µg/Kg-dry	1	10/23/2018 23:18
n-Butylbenzene	U		8.4	28	µg/Kg-dry	1	10/23/2018 23:18
n-Propylbenzene	U		10	35	µg/Kg-dry	1	10/23/2018 23:18
o-Xylene	U		10	35	µg/Kg-dry	1	10/23/2018 23:18
p-Isopropyltoluene	U		12	41	µg/Kg-dry	1	10/23/2018 23:18
sec-Butylbenzene	U		13	43	µg/Kg-dry	1	10/23/2018 23:18
Styrene	U		23	76	µg/Kg-dry	1	10/23/2018 23:18
tert-Butylbenzene	U		14	48	µg/Kg-dry	1	10/23/2018 23:18
Tetrachloroethene	U		16	53	µg/Kg-dry	1	10/23/2018 23:18
Toluene	U		11	36	µg/Kg-dry	1	10/23/2018 23:18
trans-1,2-Dichloroethene	U		9.1	31	µg/Kg-dry	1	10/23/2018 23:18
trans-1,3-Dichloropropene	U		5.8	19	µg/Kg-dry	1	10/23/2018 23:18
Trichloroethene	U		8.6	29	µg/Kg-dry	1	10/23/2018 23:18
Trichlorofluoromethane	U		6.2	21	µg/Kg-dry	1	10/23/2018 23:18
Vinyl chloride	U		10	34	µg/Kg-dry	1	10/23/2018 23:18
Xylenes, Total	U		25	83	µg/Kg-dry	1	10/23/2018 23:18
Surr: 1,2-Dichloroethane-d4	*103*			*70-130*	*%REC*	1	10/23/2018 23:18
Surr: 4-Bromofluorobenzene	*99.3*			*70-130*	*%REC*	1	10/23/2018 23:18
Surr: Dibromofluoromethane	*96.4*			*70-130*	*%REC*	1	10/23/2018 23:18
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	10/23/2018 23:18
MOISTURE		Method:	**SW3550C**				Analyst: **RBS**
Moisture	**4.1**		**0.025**	**0.050**	**% of sample**	1	10/31/2018 16:58

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 10/15/2018

Work Order: 18101308
Lab ID: 18101308-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**			Prep: SW5035 / 10/22/18		Analyst: **EMR**
1,1,1,2-Tetrachloroethane	U		7.7	26	µg/Kg-dry	1	10/23/2018 23:50
1,1,1-Trichloroethane	U		8.6	28	µg/Kg-dry	1	10/23/2018 23:50
1,1,2,2-Tetrachloroethane	U		7.2	24	µg/Kg-dry	1	10/23/2018 23:50
1,1,2-Trichloroethane	U		9.0	30	µg/Kg-dry	1	10/23/2018 23:50
1,1-Dichloroethane	U		7.6	25	µg/Kg-dry	1	10/23/2018 23:50
1,1-Dichloroethene	U		8.0	27	µg/Kg-dry	1	10/23/2018 23:50
1,1-Dichloropropene	U		13	44	µg/Kg-dry	1	10/23/2018 23:50
1,2,3-Trichlorobenzene	U		13	44	µg/Kg-dry	1	10/23/2018 23:50
1,2,3-Trichloropropane	U		20	67	µg/Kg-dry	1	10/23/2018 23:50
1,2,4-Trichlorobenzene	U		22	74	µg/Kg-dry	1	10/23/2018 23:50
1,2,4-Trimethylbenzene	U		6.0	20	µg/Kg-dry	1	10/23/2018 23:50
1,2-Dibromo-3-chloropropane	U		12	41	µg/Kg-dry	1	10/23/2018 23:50
1,2-Dibromoethane	U		10	33	µg/Kg-dry	1	10/23/2018 23:50
1,2-Dichlorobenzene	U		8.9	30	µg/Kg-dry	1	10/23/2018 23:50
1,2-Dichloroethane	U		8.2	27	µg/Kg-dry	1	10/23/2018 23:50
1,2-Dichloropropane	U		8.3	28	µg/Kg-dry	1	10/23/2018 23:50
1,3,5-Trimethylbenzene	U		13	44	µg/Kg-dry	1	10/23/2018 23:50
1,3-Dichlorobenzene	U		9.6	32	µg/Kg-dry	1	10/23/2018 23:50
1,3-Dichloropropane	U		8.4	28	µg/Kg-dry	1	10/23/2018 23:50
1,4-Dichlorobenzene	U		7.8	26	µg/Kg-dry	1	10/23/2018 23:50
2,2-Dichloropropane	U		11	36	µg/Kg-dry	1	10/23/2018 23:50
2-Butanone	U		40	130	µg/Kg-dry	1	10/23/2018 23:50
2-Chlorotoluene	U		9.0	30	µg/Kg-dry	1	10/23/2018 23:50
2-Propanol	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:50
4-Chlorotoluene	U		6.6	22	µg/Kg-dry	1	10/23/2018 23:50
4-Methyl-2-pentanone	U		22	73	µg/Kg-dry	1	10/23/2018 23:50
Acetone	U		54	180	µg/Kg-dry	1	10/23/2018 23:50
Benzene	U		6.8	23	µg/Kg-dry	1	10/23/2018 23:50
Bromobenzene	U		14	45	µg/Kg-dry	1	10/23/2018 23:50
Bromochloromethane	U		13	45	µg/Kg-dry	1	10/23/2018 23:50
Bromodichloromethane	U		8.0	27	µg/Kg-dry	1	10/23/2018 23:50
Bromoform	U		11	35	µg/Kg-dry	1	10/23/2018 23:50
Bromomethane	U		13	43	µg/Kg-dry	1	10/23/2018 23:50
Carbon tetrachloride	U		5.3	18	µg/Kg-dry	1	10/23/2018 23:50
Chlorobenzene	U		9.0	30	µg/Kg-dry	1	10/23/2018 23:50
Chloroethane	U		19	64	µg/Kg-dry	1	10/23/2018 23:50
Chloroform	U		10	34	µg/Kg-dry	1	10/23/2018 23:50
Chloromethane	U		12	40	µg/Kg-dry	1	10/23/2018 23:50

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 10/15/2018

Work Order: 18101308
Lab ID: 18101308-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	U		8.5	28	µg/Kg-dry	1	10/23/2018 23:50
cis-1,3-Dichloropropene	U		11	38	µg/Kg-dry	1	10/23/2018 23:50
Dibromochloromethane	U		6.8	23	µg/Kg-dry	1	10/23/2018 23:50
Dibromomethane	U		16	55	µg/Kg-dry	1	10/23/2018 23:50
Dichlorodifluoromethane	U		13	44	µg/Kg-dry	1	10/23/2018 23:50
Diisopropyl ether	U		**0**		**µg/Kg-dry**	1	10/23/2018 23:50
Ethylbenzene	U		7.0	23	µg/Kg-dry	1	10/23/2018 23:50
Hexachlorobutadiene	U		19	63	µg/Kg-dry	1	10/23/2018 23:50
Isopropylbenzene	U		12	39	µg/Kg-dry	1	10/23/2018 23:50
m,p-Xylene	U		13	45	µg/Kg-dry	1	10/23/2018 23:50
Methyl tert-butyl ether	U		9.8	32	µg/Kg-dry	1	10/23/2018 23:50
Methylene chloride	**22**	J	**14**	**46**	**µg/Kg-dry**	1	10/23/2018 23:50
Naphthalene	U		5.1	17	µg/Kg-dry	1	10/23/2018 23:50
n-Butylbenzene	U		7.8	26	µg/Kg-dry	1	10/23/2018 23:50
n-Propylbenzene	U		9.6	32	µg/Kg-dry	1	10/23/2018 23:50
o-Xylene	U		9.7	32	µg/Kg-dry	1	10/23/2018 23:50
p-Isopropyltoluene	U		11	38	µg/Kg-dry	1	10/23/2018 23:50
sec-Butylbenzene	U		12	40	µg/Kg-dry	1	10/23/2018 23:50
Styrene	U		21	71	µg/Kg-dry	1	10/23/2018 23:50
tert-Butylbenzene	U		13	44	µg/Kg-dry	1	10/23/2018 23:50
Tetrachloroethene	U		15	49	µg/Kg-dry	1	10/23/2018 23:50
Toluene	U		9.9	33	µg/Kg-dry	1	10/23/2018 23:50
trans-1,2-Dichloroethene	U		8.5	28	µg/Kg-dry	1	10/23/2018 23:50
trans-1,3-Dichloropropene	U		5.4	18	µg/Kg-dry	1	10/23/2018 23:50
Trichloroethene	U		8.0	27	µg/Kg-dry	1	10/23/2018 23:50
Trichlorofluoromethane	U		5.8	19	µg/Kg-dry	1	10/23/2018 23:50
Vinyl chloride	U		9.5	32	µg/Kg-dry	1	10/23/2018 23:50
Xylenes, Total	U		23	77	µg/Kg-dry	1	10/23/2018 23:50
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	10/23/2018 23:50
Surr: 4-Bromofluorobenzene	*94.0*			*70-130*	*%REC*	1	10/23/2018 23:50
Surr: Dibromofluoromethane	*96.0*			*70-130*	*%REC*	1	10/23/2018 23:50
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	10/23/2018 23:50

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

QC BATCH REPORT

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

MBLK	Sample ID: **MBLK-126615-126615**				Units: **µg/Kg-dry**			Analysis Date: **10/23/2018 12:16 P**			
Client ID:		Run ID: **VMS10_181023A**			SeqNo: **5342387**			Prep Date: **10/22/2018**		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	0	0	0	0-0	0			
1,1,1-Trichloroethane	U	14	30	0	0	0	0-0	0			
1,1,2,2-Tetrachloroethane	U	13	30	0	0	0	0-0	0			
1,1,2-Trichloroethane	U	13	30	0	0	0	0-0	0			
1,1-Dichloroethane	U	11	30	0	0	0	0-0	0			
1,1-Dichloroethene	U	9.7	30	0	0	0	0-0	0			
1,1-Dichloropropene	U	12	30	0	0	0	0-0	0			
1,2,3-Trichlorobenzene	U	14	30	0	0	0	0-0	0			
1,2,3-Trichloropropane	U	13	30	0	0	0	0-0	0			
1,2,4-Trichlorobenzene	U	10	30	0	0	0	0-0	0			
1,2,4-Trimethylbenzene	U	5.6	30	0	0	0	0-0	0			
1,2-Dibromo-3-chloropropane	U	28	100	0	0	0	0-0	0			
1,2-Dibromoethane	U	8.4	30	0	0	0	0-0	0			
1,2-Dichlorobenzene	U	11	30	0	0	0	0-0	0			
1,2-Dichloroethane	U	13	30	0	0	0	0-0	0			
1,2-Dichloropropane	U	5.2	30	0	0	0	0-0	0			
1,3,5-Trimethylbenzene	U	9.2	30	0	0	0	0-0	0			
1,3-Dichlorobenzene	U	10	30	0	0	0	0-0	0			
1,3-Dichloropropane	U	8.4	30	0	0	0	0-0	0			
1,4-Dichlorobenzene	U	7.2	30	0	0	0	0-0	0			
2,2-Dichloropropane	U	12	30	0	0	0	0-0	0			
2-Butanone	U	25	200	0	0	0	0-0	0			
2-Chlorotoluene	U	11	30	0	0	0	0-0	0			
4-Chlorotoluene	U	7.1	30	0	0	0	0-0	0			
4-Methyl-2-pentanone	U	14	30	0	0	0	0-0	0			
Acetone	U	31	100	0	0	0	0-0	0			
Benzene	U	5.1	30	0	0	0	0-0	0			
Bromobenzene	U	12	30	0	0	0	0-0	0			
Bromochloromethane	U	15	30	0	0	0	0-0	0			
Bromodichloromethane	U	17	30	0	0	0	0-0	0			
Bromoform	U	13	30	0	0	0	0-0	0			
Bromomethane	U	57	100	0	0	0	0-0	0			
Carbon tetrachloride	U	12	30	0	0	0	0-0	0			
Chlorobenzene	U	10	30	0	0	0	0-0	0			
Chloroethane	U	10	100	0	0	0	0-0	0			
Chloroform	U	11	30	0	0	0	0-0	0			
Chloromethane	111	25	100	0	0	0	0-0	0			B
cis-1,2-Dichloroethene	U	9.4	30	0	0	0	0-0	0			
cis-1,3-Dichloropropene	U	11	30	0	0	0	0-0	0			
Dibromochloromethane	U	17	30	0	0	0	0-0	0			
Dibromomethane	U	9.8	30	0	0	0	0-0	0			

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

Batch ID: **126615**	Instrument ID **VMS10**			Method: **SW8260C**					
Dichlorodifluoromethane	U	6.3	30	0	0	0	0-0	0	
Diisopropyl ether	U	5.6	30	0	0	0		0	
Ethylbenzene	U	6.3	30	0	0	0	0-0	0	
Hexachlorobutadiene	U	27	100	0	0	0	0-0	0	
Isopropylbenzene	U	9.2	30	0	0	0	0-0	0	
m,p-Xylene	U	14	60	0	0	0	0-0	0	
Methyl tert-butyl ether	U	8.6	30	0	0	0	0-0	0	
Methylene chloride	U	13	30	0	0	0	0-0	0	
Naphthalene	U	8.3	100	0	0	0	0-0	0	
n-Butylbenzene	U	8.5	30	0	0	0	0-0	0	
n-Propylbenzene	12.5	9.7	30	0	0	0	0-0	0	J
o-Xylene	U	12	30	0	0	0	0-0	0	
p-Isopropyltoluene	U	25	100	0	0	0	0-0	0	
sec-Butylbenzene	12	12	30	0	0	0	0-0	0	J
Styrene	U	12	30	0	0	0	0-0	0	
tert-Butylbenzene	U	9.7	30	0	0	0	0-0	0	
Tetrachloroethene	U	8.7	30	0	0	0	0-0	0	
Toluene	U	8.2	30	0	0	0	0-0	0	
trans-1,2-Dichloroethene	U	11	30	0	0	0	0-0	0	
trans-1,3-Dichloropropene	U	17	30	0	0	0	0-0	0	
Trichloroethene	U	13	30	0	0	0	0-0	0	
Trichlorofluoromethane	U	15	30	0	0	0	0-0	0	
Vinyl chloride	U	6.4	30	0	0	0	0-0	0	
Xylenes, Total	U	26	90	0	0	0	0-0	0	
Surr: 1,2-Dichloroethane-d4	*1048*	0	0	*1000*	0	*105*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*912*	0	0	*1000*	0	*91.2*	*70-130*	0	
Surr: Dibromofluoromethane	*961*	0	0	*1000*	0	*96.1*	*70-130*	0	
Surr: Toluene-d8	*985*	0	0	*1000*	0	*98.5*	*70-130*	0	

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **LCS-126615-126615** Units: **µg/Kg-dry** Analysis Date: **10/23/2018 11:28 A**
Client ID: Run ID: **VMS10_181023A** SeqNo: **5342385** Prep Date: **10/22/2018** 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	1125	16	30	1000	0	112	75-125	0			
1,1,1-Trichloroethane	1176	14	30	1000	0	118	70-135	0			
1,1,2,2-Tetrachloroethane	1110	13	30	1000	0	111	55-130	0			
1,1,2-Trichloroethane	1090	13	30	1000	0	109	60-125	0			
1,1-Dichloroethane	1084	11	30	1000	0	108	75-125	0			
1,1-Dichloroethene	1091	9.7	30	1000	0	109	76-148	0			
1,1-Dichloropropene	1092	12	30	1000	0	109	70-135	0			
1,2,3-Trichlorobenzene	1062	14	30	1000	0	106	60-135	0			
1,2,3-Trichloropropane	1108	13	30	1000	0	111	65-130	0			
1,2,4-Trichlorobenzene	1036	10	30	1000	0	104	65-130	0			
1,2,4-Trimethylbenzene	1059	5.6	30	1000	0	106	65-135	0			
1,2-Dibromo-3-chloropropane	1104	28	100	1000	0	110	40-135	0			
1,2-Dibromoethane	1198	8.4	30	1000	0	120	80-195	0			
1,2-Dichlorobenzene	1070	11	30	1000	0	107	75-120	0			
1,2-Dichloroethane	1137	13	30	1000	0	114	70-135	0			
1,2-Dichloropropane	1054	5.2	30	1000	0	105	70-120	0			
1,3,5-Trimethylbenzene	1060	9.2	30	1000	0	106	65-135	0			
1,3-Dichlorobenzene	991	10	30	1000	0	99.1	70-125	0			
1,3-Dichloropropane	1054	8.4	30	1000	0	105	75-125	0			
1,4-Dichlorobenzene	1071	7.2	30	1000	0	107	70-125	0			
2,2-Dichloropropane	1148	12	30	1000	0	115	54-146	0			
2-Butanone	897.5	25	200	1000	0	89.8	30-160	0			
2-Chlorotoluene	1067	11	30	1000	0	107	70-130	0			
4-Chlorotoluene	1116	7.1	30	1000	0	112	75-125	0			
4-Methyl-2-pentanone	1436	14	30	1000	0	144	74-176	0			
Acetone	947	31	100	1000	0	94.7	20-160	0			
Benzene	1116	5.1	30	1000	0	112	75-125	0			
Bromobenzene	1124	12	30	1000	0	112	65-120	0			
Bromochloromethane	1230	15	30	1000	0	123	74-134	0			
Bromodichloromethane	1046	17	30	1000	0	105	70-130	0			
Bromoform	1020	13	30	1000	0	102	55-135	0			
Bromomethane	996	57	100	1000	0	99.6	50-170	0			
Carbon tetrachloride	1102	12	30	1000	0	110	65-135	0			
Chlorobenzene	1006	10	30	1000	0	101	75-125	0			
Chloroethane	1170	10	100	1000	0	117	40-155	0			
Chloroform	1081	11	30	1000	0	108	70-125	0			
Chloromethane	984	25	100	1000	0	98.4	50-144	0			B
cis-1,2-Dichloroethene	1276	9.4	30	1000	0	128	65-125	0			S
cis-1,3-Dichloropropene	1136	11	30	1000	0	114	70-125	0			
Dibromochloromethane	984	17	30	1000	0	98.4	65-135	0			
Dibromomethane	1097	9.8	30	1000	0	110	75-130	0			
Dichlorodifluoromethane	724	6.3	30	1000	0	72.4	35-135	0			
Diisopropyl ether	1000	5.6	30	1000	0	100	70-130	0			

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

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

Ethylbenzene	1148	6.3	30	1000	0	115	75-125	0
Hexachlorobutadiene	1072	27	100	1000	0	107	55-140	0
Isopropylbenzene	1182	9.2	30	1000	0	118	75-130	0
m,p-Xylene	2350	14	60	2000	0	118	80-125	0
Methyl tert-butyl ether	1092	8.6	30	1000	0	109	75-125	0
Methylene chloride	1117	13	30	1000	0	112	55-145	0
Naphthalene	1096	8.3	100	1000	0	110	40-140	0
n-Butylbenzene	1068	8.5	30	1000	0	107	65-140	0
n-Propylbenzene	1057	9.7	30	1000	0	106	65-135	0
o-Xylene	1188	12	30	1000	0	119	75-125	0
p-Isopropyltoluene	1222	25	100	1000	0	122	71-157	0
sec-Butylbenzene	1062	12	30	1000	0	106	65-130	0
Styrene	1102	12	30	1000	0	110	80-138	0
tert-Butylbenzene	1184	9.7	30	1000	0	118	65-130	0
Tetrachloroethene	1111	8.7	30	1000	0	111	67-167	0
Toluene	1040	8.2	30	1000	0	104	70-125	0
trans-1,2-Dichloroethene	1124	11	30	1000	0	112	65-135	0
trans-1,3-Dichloropropene	1079	17	30	1000	0	108	59-129	0
Trichloroethene	1102	13	30	1000	0	110	75-125	0
Trichlorofluoromethane	910.5	15	30	1000	0	91	25-185	0
Vinyl chloride	997.5	6.4	30	1000	0	99.8	60-125	0
Xylenes, Total	3538	26	90	3000	0	118	75-125	0
Surr: 1,2-Dichloroethane-d4	*996*	0	0	*1000*	0	*99.6*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1062*	0	0	*1000*	0	*106*	*70-130*	0
Surr: Dibromofluoromethane	*986.5*	0	0	*1000*	0	*98.6*	*70-130*	0
Surr: Toluene-d8	*1016*	0	0	*1000*	0	*102*	*70-130*	0

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **1810426-01A MS** Units: **µg/Kg-dry** Analysis Date: **10/23/2018 07:10 P**

Client ID: Run ID: **VMS10_181023A** SeqNo: **5342409** Prep Date: **10/22/2018** 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	1197	22	42	1410	0	84.9	75-125	0			HHH
1,1,1-Trichloroethane	1415	19	42	1410	0	100	70-135	0			HHH
1,1,2,2-Tetrachloroethane	1195	19	42	1410	0	84.8	55-130	0			HHH
1,1,2-Trichloroethane	1303	18	42	1410	0	92.4	60-125	0			HHH
1,1-Dichloroethane	1307	15	42	1410	0	92.8	75-125	0			HHH
1,1-Dichloroethene	1345	14	42	1410	0	95.4	76-148	0			HHH
1,1-Dichloropropene	1375	18	42	1410	0	97.6	70-135	0			HHH
1,2,3-Trichlorobenzene	1477	20	42	1410	0	105	60-135	0			HHH
1,2,3-Trichloropropane	1339	18	42	1410	0	95	65-130	0			HHH
1,2,4-Trichlorobenzene	1429	15	42	1410	0	101	65-130	0			HHH
1,2,4-Trimethylbenzene	1281	7.8	42	1410	0	90.9	65-135	0			HHH
1,2-Dibromo-3-chloropropane	1182	39	140	1410	0	83.8	40-135	0			HHH
1,2-Dibromoethane	1386	12	42	1410	0	98.4	80-195	0			HHH
1,2-Dichlorobenzene	1331	16	42	1410	0	94.4	75-120	0			HHH
1,2-Dichloroethane	1400	18	42	1410	0	99.4	70-135	0			HHH
1,2-Dichloropropane	1257	7.4	42	1410	0	89.2	70-120	0			HHH
1,3,5-Trimethylbenzene	1329	13	42	1410	0	94.3	65-135	0			HHH
1,3-Dichlorobenzene	1210	14	42	1410	0	85.8	70-125	0			HHH
1,3-Dichloropropane	1276	12	42	1410	0	90.6	75-125	0			HHH
1,4-Dichlorobenzene	1303	10	42	1410	0	92.4	70-125	0			HHH
2,2-Dichloropropane	1161	17	42	1410	0	82.4	54-146	0			HHH
2-Butanone	U	35	280	1410	0	0	30-160	0			SHHH
2-Chlorotoluene	1312	15	42	1410	0	93.1	70-130	0			HHH
4-Chlorotoluene	1349	10	42	1410	0	95.7	75-125	0			HHH
4-Methyl-2-pentanone	1496	20	42	1410	0	106	74-176	0			HHH
Acetone	1056	44	140	1410	0	74.9	20-160	0			HHH
Benzene	1387	7.2	42	1410	0	98.4	75-125	0			HHH
Bromobenzene	1385	17	42	1410	0	98.2	65-120	0			HHH
Bromochloromethane	1322	22	42	1410	0	93.8	74-134	0			HHH
Bromodichloromethane	1089	24	42	1410	0	77.2	70-130	0			HHH
Bromoform	1069	18	42	1410	0	75.8	55-135	0			HHH
Bromomethane	360.9	81	140	1410	0	25.6	50-170	0			SHHH
Carbon tetrachloride	1277	17	42	1410	0	90.6	65-135	0			HHH
Chlorobenzene	1209	14	42	1410	0	85.8	75-125	0			HHH
Chloroethane	1023	15	140	1410	0	72.6	40-155	0			HHH
Chloroform	1274	15	42	1410	0	90.4	70-125	0			HHH
Chloromethane	1135	35	140	1410	108.5	72.8	50-144	0			BHHH
cis-1,2-Dichloroethene	1343	13	42	1410	0	95.2	65-125	0			HHH
cis-1,3-Dichloropropene	1238	16	42	1410	0	87.8	70-125	0			HHH
Dibromochloromethane	1047	24	42	1410	0	74.3	65-135	0			HHH
Dibromomethane	1242	14	42	1410	0	88.1	75-130	0			HHH
Dichlorodifluoromethane	807.7	8.8	42	1410	0	57.3	35-135	0			HHH
Diisopropyl ether	1230	7.9	42	1410	0	87.2	70-130	0			HHH

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

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

Ethylbenzene	1407	8.9	42	1410	0	99.8	75-125	0	HHH
Hexachlorobutadiene	1348	38	140	1410	0	95.6	55-140	0	HHH
Isopropylbenzene	1429	13	42	1410	0	101	75-130	0	HHH
m,p-Xylene	2873	20	85	2819	5.639	102	80-125	0	HHH
Methyl tert-butyl ether	1314	12	42	1410	0	93.2	75-125	0	HHH
Methylene chloride	1306	18	42	1410	0	92.6	55-145	0	HHH
Naphthalene	1521	12	140	1410	0	108	40-140	0	HHH
n-Butylbenzene	1291	12	42	1410	0	91.6	65-140	0	HHH
n-Propylbenzene	1271	14	42	1410	0	90.2	65-135	0	HHH
o-Xylene	1459	16	42	1410	0	104	75-125	0	HHH
p-Isopropyltoluene	1473	36	140	1410	0	104	71-157	0	HHH
sec-Butylbenzene	1338	17	42	1410	0	95	65-130	0	HHH
Styrene	1298	17	42	1410	0	92.1	80-138	0	HHH
tert-Butylbenzene	1468	14	42	1410	0	104	65-130	0	HHH
Tetrachloroethene	2488	12	42	1410	0	176	67-167	0	SHHH
Toluene	1304	12	42	1410	0	92.5	70-125	0	HHH
trans-1,2-Dichloroethene	1357	16	42	1410	0	96.3	65-135	0	HHH
trans-1,3-Dichloropropene	1214	24	42	1410	0	86.2	59-129	0	HHH
Trichloroethene	1391	19	42	1410	0	98.7	75-125	0	HHH
Trichlorofluoromethane	1089	22	42	1410	0	77.2	25-185	0	HHH
Vinyl chloride	1143	9.1	42	1410	0	81.1	60-125	0	HHH
Xylenes, Total	4332	36	130	4229	0	102	75-125	0	HHH
Surr: 1,2-Dichloroethane-d4	*1365*	0	0	*1410*	0	*96.8*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1485*	0	0	*1410*	0	*105*	*70-130*	0	
Surr: Dibromofluoromethane	*1326*	0	0	*1410*	0	*94.1*	*70-130*	0	
Surr: Toluene-d8	*1477*	0	0	*1410*	0	*105*	*70-130*	0	

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **1810426-01A MSD** Units: **µg/Kg-dry** Analysis Date: **10/23/2018 07:26 P**

Client ID: Run ID: **VMS10_181023A** SeqNo: **5342410** Prep Date: **10/22/2018** 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	1249	22	42	1410	0	88.6	75-125	1197	4.27	30	HHH
1,1,1-Trichloroethane	1345	19	42	1410	0	95.4	70-135	1415	5.06	30	HHH
1,1,2,2-Tetrachloroethane	1192	19	42	1410	0	84.6	55-130	1195	0.236	30	HHH
1,1,2-Trichloroethane	1361	18	42	1410	0	96.6	60-125	1303	4.34	30	HHH
1,1-Dichloroethane	1294	15	42	1410	0	91.8	75-125	1307	1.03	30	HHH
1,1-Dichloroethene	1295	14	42	1410	0	91.8	76-148	1345	3.79	30	HHH
1,1-Dichloropropene	1351	18	42	1410	0	95.8	70-135	1375	1.76	30	HHH
1,2,3-Trichlorobenzene	1563	20	42	1410	0	111	60-135	1477	5.61	30	HHH
1,2,3-Trichloropropane	1378	18	42	1410	0	97.8	65-130	1339	2.85	30	HHH
1,2,4-Trichlorobenzene	1461	15	42	1410	0	104	65-130	1429	2.24	30	HHH
1,2,4-Trimethylbenzene	1260	7.8	42	1410	0	89.4	65-135	1281	1.66	30	HHH
1,2-Dibromo-3-chloropropane	1384	39	140	1410	0	98.2	40-135	1182	15.7	30	HHH
1,2-Dibromoethane	1434	12	42	1410	0	102	80-195	1386	3.4	30	HHH
1,2-Dichlorobenzene	1357	16	42	1410	0	96.2	75-120	1331	1.94	30	HHH
1,2-Dichloroethane	1402	18	42	1410	0	99.4	70-135	1400	0.101	30	HHH
1,2-Dichloropropane	1274	7.4	42	1410	0	90.4	70-120	1257	1.34	30	HHH
1,3,5-Trimethylbenzene	1319	13	42	1410	0	93.6	65-135	1329	0.745	30	HHH
1,3-Dichlorobenzene	1214	14	42	1410	0	86.1	70-125	1210	0.291	30	HHH
1,3-Dichloropropane	1326	12	42	1410	0	94.1	75-125	1276	3.85	30	HHH
1,4-Dichlorobenzene	1340	10	42	1410	0	95	70-125	1303	2.83	30	HHH
2,2-Dichloropropane	1138	17	42	1410	0	80.8	54-146	1161	1.96	30	HHH
2-Butanone	U	35	280	1410	0	0	30-160	0	0	30	SHHH
2-Chlorotoluene	1297	15	42	1410	0	92	70-130	1312	1.19	30	HHH
4-Chlorotoluene	1346	10	42	1410	0	95.5	75-125	1349	0.209	30	HHH
4-Methyl-2-pentanone	1651	20	42	1410	0	117	74-176	1496	9.81	30	HHH
Acetone	2196	44	140	1410	0	156	20-160	1056	70.1	30	RHHH
Benzene	1353	7.2	42	1410	0	96	75-125	1387	2.47	30	HHH
Bromobenzene	1396	17	42	1410	0	99	65-120	1385	0.76	30	HHH
Bromochloromethane	1355	22	42	1410	0	96.2	74-134	1322	2.53	30	HHH
Bromodichloromethane	1102	24	42	1410	0	78.2	70-130	1089	1.16	30	HHH
Bromoform	1078	18	42	1410	0	76.4	55-135	1069	0.854	30	HHH
Bromomethane	386.9	81	140	1410	0	27.4	50-170	360.9	6.97	30	SHHH
Carbon tetrachloride	1214	17	42	1410	0	86.2	65-135	1277	5.04	30	HHH
Chlorobenzene	1219	14	42	1410	0	86.5	75-125	1209	0.813	30	HHH
Chloroethane	1080	15	140	1410	0	76.6	40-155	1023	5.36	30	HHH
Chloroform	1293	15	42	1410	0	91.8	70-125	1274	1.48	30	HHH
Chloromethane	1116	35	140	1410	108.5	71.5	50-144	1135	1.69	30	BHHH
cis-1,2-Dichloroethene	1362	13	42	1410	0	96.6	65-125	1343	1.46	30	HHH
cis-1,3-Dichloropropene	1260	16	42	1410	0	89.4	70-125	1238	1.69	30	HHH
Dibromochloromethane	1097	24	42	1410	0	77.8	65-135	1047	4.6	30	HHH
Dibromomethane	1286	14	42	1410	0	91.2	75-130	1242	3.51	30	HHH
Dichlorodifluoromethane	777.4	8.8	42	1410	0	55.2	35-135	807.7	3.82	30	HHH
Diisopropyl ether	1284	7.9	42	1410	0	91.1	70-130	1230	4.32	30	HHH

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **126615** Instrument ID **VMS10** Method: **SW8260C**

Ethylbenzene	1398	8.9	42	1410	0	99.2	75-125	1407	0.603	30	HHH
Hexachlorobutadiene	1334	38	140	1410	0	94.6	55-140	1348	1.05	30	HHH
Isopropylbenzene	1424	13	42	1410	0	101	75-130	1429	0.296	30	HHH
m,p-Xylene	2824	20	85	2819	5.639	100	80-125	2873	1.73	30	HHH
Methyl tert-butyl ether	1410	12	42	1410	0	100	75-125	1314	6.99	30	HHH
Methylene chloride	1336	18	42	1410	0	94.8	55-145	1306	2.24	30	HHH
Naphthalene	1638	12	140	1410	0	116	40-140	1521	7.41	30	HHH
n-Butylbenzene	1275	12	42	1410	0	90.4	65-140	1291	1.21	30	HHH
n-Propylbenzene	1262	14	42	1410	0	89.6	65-135	1271	0.668	30	HHH
o-Xylene	1474	16	42	1410	0	105	75-125	1459	1.06	30	HHH
p-Isopropyltoluene	1456	36	140	1410	0	103	71-157	1473	1.15	30	HHH
sec-Butylbenzene	1326	17	42	1410	0	94.1	65-130	1338	0.899	30	HHH
Styrene	1300	17	42	1410	0	92.2	80-138	1298	0.109	30	HHH
tert-Butylbenzene	1452	14	42	1410	0	103	65-130	1468	1.11	30	HHH
Tetrachloroethene	2622	12	42	1410	0	186	67-167	2488	5.24	30	SHHH
Toluene	1293	12	42	1410	0	91.8	70-125	1304	0.814	30	HHH
trans-1,2-Dichloroethene	1361	16	42	1410	0	96.6	65-135	1357	0.259	30	HHH
trans-1,3-Dichloropropene	1253	24	42	1410	0	88.9	59-129	1214	3.14	30	HHH
Trichloroethene	1447	19	42	1410	0	103	75-125	1391	3.92	30	HHH
Trichlorofluoromethane	1052	22	42	1410	0	74.6	25-185	1089	3.49	30	HHH
Vinyl chloride	1102	9.1	42	1410	0	78.2	60-125	1143	3.7	30	HHH
Xylenes, Total	4298	36	130	4229	0	102	75-125	4332	0.784	30	HHH
Surr: 1,2-Dichloroethane-d4	*1395*	0	0	*1410*	0	*99*	*70-130*	1365	*2.2*	*30*	
Surr: 4-Bromofluorobenzene	*1462*	0	0	*1410*	0	*104*	*70-130*	1485	*1.58*	*30*	
Surr: Dibromofluoromethane	*1322*	0	0	*1410*	0	*93.8*	*70-130*	1326	*0.373*	*30*	
Surr: Toluene-d8	*1486*	0	0	*1410*	0	*105*	*70-130*	1477	*0.618*	*30*	

The following samples were analyzed in this batch:

18101308-01A	18101308-02A	18101308-03A
18101308-04A	18101308-05A	18101308-06A
18101308-07A	18101308-08A	18101308-09A
18101308-10A	18101308-11A	18101308-12A
18101308-13A		

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247517** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R247517** Units: **% of sample** Analysis Date: **10/22/2018 01:41 P**
Client ID: Run ID: **MOIST_181022B** SeqNo: **5337983** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.025	0.050								

LCS Sample ID: **LCS-R247517** Units: **% of sample** Analysis Date: **10/22/2018 01:41 P**
Client ID: Run ID: **MOIST_181022B** SeqNo: **5337982** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.025	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **18101308-03B DUP** Units: **% of sample** Analysis Date: **10/22/2018 01:41 P**
Client ID: **GP-92 4.0-6.0** Run ID: **MOIST_181022B** SeqNo: **5337963** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.85	0.025	0.050	0	0	0	0-0	4.8	1.04	10	

DUP Sample ID: **18101328-01B DUP** Units: **% of sample** Analysis Date: **10/22/2018 01:41 P**
Client ID: Run ID: **MOIST_181022B** SeqNo: **5337974** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	3.96	0.025	0.050	0	0	0	0-0	3.93	0.76	10	

The following samples were analyzed in this batch:

18101308-01B	18101308-02B	18101308-03B
18101308-04B	18101308-05B	18101308-06B
18101308-07B	18101308-08B	18101308-09B
18101308-10B	18101308-11B	18101308-12B

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R248062** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R248062** Units: **% of sample** Analysis Date: **10/29/2018 04:15 P**
Client ID: Run ID: **MOIST_181029B** SeqNo: **5353112** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.025	0.050								

LCS Sample ID: **LCS-R248062** Units: **% of sample** Analysis Date: **10/29/2018 04:15 P**
Client ID: Run ID: **MOIST_181029B** SeqNo: **5353111** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.025	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **18101851-01A DUP** Units: **% of sample** Analysis Date: **10/29/2018 04:15 P**
Client ID: Run ID: **MOIST_181029B** SeqNo: **5353098** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.6	0.025	0.050	0	0	0	0-0	10.05	5.33	10	

DUP Sample ID: **18101851-02A DUP** Units: **% of sample** Analysis Date: **10/29/2018 04:15 P**
Client ID: Run ID: **MOIST_181029B** SeqNo: **5353100** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.52	0.025	0.050	0	0	0	0-0	19.59	0.358	10	

The following samples were analyzed in this batch: 18101308-08B

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

Client: Gannett Fleming, Inc.
Work Order: 18101308
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R248324** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R248324** Units: **% of sample** Analysis Date: **10/31/2018 04:58 P**
Client ID: Run ID: **MOIST_181031B** SeqNo: **5361336** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.025	0.050								J

LCS Sample ID: **LCS-R248324** Units: **% of sample** Analysis Date: **10/31/2018 04:58 P**
Client ID: Run ID: **MOIST_181031B** SeqNo: **5361335** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.025	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **18101868-01A DUP** Units: **% of sample** Analysis Date: **10/31/2018 04:58 P**
Client ID: Run ID: **MOIST_181031B** SeqNo: **5361312** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.99	0.025	0.050	0	0	0	0-0	9.14	1.65	10	

DUP Sample ID: **18101838-02A DUP** Units: **% of sample** Analysis Date: **10/31/2018 04:58 P**
Client ID: Run ID: **MOIST_181031B** SeqNo: **5361317** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.68	0.025	0.050	0	0	0	0-0	17.61	0.397	10	

The following samples were analyzed in this batch: 18101308-11B

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

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

Page 1 of 2

COC ID: 179212

QUOTE: ALS Unit Rates

ALS Project Manager: BB | ALS Work Order #: 1810308

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	55929.005	Project Name	WRR - GP-Soil	A	VOCs
Work Order		Project Number	55929.005	B	Moisture
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	GP-91 0.5-2.0	10/15/18	12:25	Soil	MeOH, None	3	X	X									
2	GP-91 6.0-8.0	↓	12:30	↓	↓	↓	↓	↓									
3	GP-92 4.0-6.0		13:30														
4	GP-92 8.0-10.0	↓	13:40														
5	GP-93 0.5-4.0	10/16/18	13:50														
6	GP-93 8.0-10.0	"	13:30														
7	GP-94 0.5-2.0	10/17/18	9:20														
8	GP-94 4.0-6.0		9:25														
9	GP-94 12.0-14.0	↓	9:30														
10	GP-95 0.5-2.0	10/18/18	9:00	↓	↓	↓	↓	↓									

Sampler(s) Please Print & Sign: Chelsea Payne Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Chelsea Payne	Date: 10/18/18	Time: 12:00	Received by: FedEx	
Relinquished by: FedEx	Date: 10/19/18	Time: 0900	Received by (Laboratory):	
Logged by (Laboratory): VK	Date: 10/19/18	Time: 1100	Checked by (Laboratory): RB	

Notes:

Cooler ID	Cooler Temp.
SPZ	3.4°C

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.

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

Page 2 of 2

COC ID: 179209

ALS Project Manager: BB | ALS Work Order #: 1810308

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	55929.005	Project Name	WRR - GP Soil	A	VOCs
Work Order		Project Number	55929.005	B	Moisture
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	GP-95 8.0-10.0	10/18/18	9:10	Soil	MeOH, Cold	3	X	X									
2	GP-95 10.0-12.0	"	9:20	"	"	"	X	X									
3	Trip Blank	10/15/18		GW	HCl	1	X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Chelsea Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date: 10/18/18	Time: 12:00	Received by: FedEx	Notes:
Relinquished by: FedEx	Date: 10/19/18	Time: 0900	Received by (Laboratory):	
Logged by (Laboratory): KW	Date: 10/19/18	Time: 1100	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.

FedEx Express Package US Airbill

FedEx Tracking Number 8130 2111 6403

Form ID No. 0215

Recipient's Copy

1 From

Date 10/18/18

Sender's Name Chelsea Payne — Phone 608 286-8911

Company Gannett Fleming

Address 8025 Excelsior Dr

Dept./Floor/Suite/Room

City Madison State WI ZIP 53717

2 Your Internal Billing Reference

3 To

Recipient's Name LOG IN - RECEIVING Phone 616 399-6070

Company ALS ENVIRONMENTAL HOLLAND LAB

Address 3352 128TH AVE

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City HOLLAND State MI ZIP 49424-9263

Hold Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0130546740

4 Express Package Service * To most locations.

Packages up to 150 lbs. For packages over 150 lbs., see the FedEx Express Freight US Airbill.

Next Business Day	2 or 3 Business Days
☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.	☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.	☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
☒ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.	☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

☒ Direct Signature — Someone at recipient's address may sign for delivery.

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☐ Sender — Acct. No. in Section 1 will be billed. ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages 1 Total Weight 44 lbs. Credit Card Auth.

* Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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611

ALS
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 10/18/18 Time: 12:00

Name: Chelsea Payne

Company: Gannett Fleming

Seal Broken By:

Date:

ALS Group, USA

Sample Receipt Checklist

Client Name: **GANNETTFLEMING - WI** Date/Time Received: **19-Oct-18 09:00**

Work Order: **18101308** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 19-Oct-18 (Date) Reviewed by: Tom Bramish (eSignature) 19-Oct-18 (Date)

Matrices: Soil

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:	10/19/2018 2:49:05 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:

The analytical results and QA/QC data included with this report were reviewed by AWM on 11/06/18.

02-Nov-2018

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

Re: **WRR (55929.005)** Work Order: **18101327**

Dear Anthony,

ALS Environmental received 10 samples on 19-Oct-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 44.

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,

Ehrland Bosworth

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: WI: 399084510

ALS Group, USA

Date: 02-Nov-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Work Order: **18101327**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
18101327-01	GP-91 S	Water		10/15/2018 12:15	10/19/2018 09:00	☐
18101327-02	GP-92 S	Water		10/15/2018 13:05	10/19/2018 09:00	☐
18101327-03	GP-92 D	Water		10/15/2018 13:15	10/19/2018 09:00	☐
18101327-04	GP-93 S	Water		10/16/2018 11:40	10/19/2018 09:00	☐
18101327-05	GP-93 D	Water		10/16/2018 11:50	10/19/2018 09:00	☐
18101327-06	GP-94 S	Water		10/17/2018 09:15	10/19/2018 09:00	☐
18101327-07	GP-95 S	Water		10/18/2018 08:00	10/19/2018 09:00	☐
18101327-08	GP-95 D	Water		10/18/2018 08:45	10/19/2018 09:00	☐
18101327-09	Trip Blank	Water		10/15/2018	10/19/2018 09:00	☐
18101327-10	MP-1	Water		10/18/2018 11:30	10/19/2018 09:00	☐

ALS Group, USA

Date: 02-Nov-18

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
WorkOrder: **18101327**

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
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
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: 18101327

Case Narrative

Samples for the above noted Work Order were received on 10/19/18. 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:
No deviations or anomalies noted.

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 S
Collection Date: 10/15/2018 12:15 PM

Work Order: 18101327
Lab ID: 18101327-01
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	10/23/2018 21:56
1,1,1-Trichloroethane	**2.7**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 21:56
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 21:56
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	10/23/2018 21:56
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/23/2018 21:56
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 21:56
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 21:56
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 21:56
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 21:56
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 21:56
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 21:56
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 21:56
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 21:56
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 21:56
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 21:56
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 21:56
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 21:56
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 21:56
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 21:56
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 21:56
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 21:56
2-Butanone	**7.3**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 21:56
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 21:56
2-Propanol	U		33	110	µg/L	1	10/23/2018 21:56
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 21:56
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 21:56
Acetone	**8.0**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 21:56
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 21:56
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 21:56
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 21:56
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 21:56
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 21:56
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 21:56
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 21:56
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 21:56
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 21:56
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 21:56
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 21:56

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-91 S
Collection Date: 10/15/2018 12:15 PM

Work Order: 18101327
Lab ID: 18101327-01
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	10/23/2018 21:56
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 21:56
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 21:56
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 21:56
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 21:56
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 21:56
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 21:56
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 21:56
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 21:56
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 21:56
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/23/2018 21:56
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 21:56
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 21:56
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 21:56
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 21:56
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 21:56
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 21:56
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 21:56
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 21:56
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 21:56
Tetrachloroethene	**190**		**1.4**	**4.6**	**µg/L**	5	10/25/2018 15:00
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 21:56
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 21:56
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 21:56
Trichloroethene	**0.70**	J	**0.30**	**0.99**	**µg/L**	1	10/23/2018 21:56
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 21:56
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 21:56
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 21:56
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	10/23/2018 21:56
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	5	10/25/2018 15:00
Surr: 4-Bromofluorobenzene	*97.0*			*80-110*	*%REC*	1	10/23/2018 21:56
Surr: 4-Bromofluorobenzene	*94.5*			*80-110*	*%REC*	5	10/25/2018 15:00
Surr: Dibromofluoromethane	*97.9*			*85-115*	*%REC*	1	10/23/2018 21:56
Surr: Dibromofluoromethane	*98.4*			*85-115*	*%REC*	5	10/25/2018 15:00
Surr: Toluene-d8	*95.6*			*85-110*	*%REC*	1	10/23/2018 21:56
Surr: Toluene-d8	*94.2*			*85-110*	*%REC*	5	10/25/2018 15:00

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 S
Collection Date: 10/15/2018 01:05 PM

Work Order: 18101327
Lab ID: 18101327-02
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	10/23/2018 22:12
1,1,1-Trichloroethane	**16**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 22:12
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 22:12
1,1,2-Trichloroethane	**21**		**0.40**	**1.3**	**µg/L**	1	10/23/2018 22:12
1,1-Dichloroethane	**5.6**		**0.31**	**1.0**	**µg/L**	1	10/23/2018 22:12
1,1-Dichloroethene	**0.52**	J	**0.28**	**0.92**	**µg/L**	1	10/23/2018 22:12
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 22:12
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 22:12
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 22:12
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:12
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 22:12
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 22:12
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 22:12
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:12
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 22:12
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 22:12
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 22:12
1,3-Dichlorobenzene	**0.31**	J	**0.29**	**0.96**	**µg/L**	1	10/23/2018 22:12
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 22:12
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:12
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 22:12
2-Butanone	**8.6**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 22:12
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 22:12
2-Propanol	U		33	110	µg/L	1	10/23/2018 22:12
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 22:12
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 22:12
Acetone	**12**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 22:12
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 22:12
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 22:12
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:12
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 22:12
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 22:12
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 22:12
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 22:12
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 22:12
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 22:12
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 22:12
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 22:12

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 S
Collection Date: 10/15/2018 01:05 PM

Work Order: 18101327
Lab ID: 18101327-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**53**		**0.25**	**0.85**	**µg/L**	1	10/23/2018 22:12
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 22:12
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 22:12
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 22:12
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 22:12
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 22:12
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 22:12
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 22:12
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 22:12
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 22:12
Methyl tert-butyl ether	**0.31**	J	**0.12**	**0.40**	**µg/L**	1	10/23/2018 22:12
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 22:12
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 22:12
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:12
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 22:12
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 22:12
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 22:12
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 22:12
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 22:12
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 22:12
Tetrachloroethene	**800**		**5.5**	**18**	**µg/L**	20	10/26/2018 13:33
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 22:12
trans-1,2-Dichloroethene	**0.83**	J	**0.28**	**0.93**	**µg/L**	1	10/23/2018 22:12
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 22:12
Trichloroethene	**22**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 22:12
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:12
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 22:12
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 22:12
Surr: 1,2-Dichloroethane-d4	*98.8*			*75-120*	*%REC*	1	10/23/2018 22:12
Surr: 1,2-Dichloroethane-d4	*103*			*75-120*	*%REC*	20	10/26/2018 13:33
Surr: 4-Bromofluorobenzene	*100*			*80-110*	*%REC*	1	10/23/2018 22:12
Surr: 4-Bromofluorobenzene	*96.6*			*80-110*	*%REC*	20	10/26/2018 13:33
Surr: Dibromofluoromethane	*97.6*			*85-115*	*%REC*	1	10/23/2018 22:12
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	20	10/26/2018 13:33
Surr: Toluene-d8	*96.0*			*85-110*	*%REC*	1	10/23/2018 22:12
Surr: Toluene-d8	*91.2*			*85-110*	*%REC*	20	10/26/2018 13:33

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 D
Collection Date: 10/15/2018 01:15 PM

Work Order: 18101327
Lab ID: 18101327-03
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	10/23/2018 22:27
1,1,1-Trichloroethane	**1.8**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 22:27
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 22:27
1,1,2-Trichloroethane	**2.8**		**0.40**	**1.3**	**µg/L**	1	10/23/2018 22:27
1,1-Dichloroethane	**0.59**	J	**0.31**	**1.0**	**µg/L**	1	10/23/2018 22:27
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 22:27
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 22:27
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 22:27
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 22:27
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:27
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 22:27
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 22:27
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 22:27
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:27
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 22:27
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 22:27
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 22:27
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 22:27
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 22:27
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:27
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 22:27
2-Butanone	**8.7**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 22:27
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 22:27
2-Propanol	U		33	110	µg/L	1	10/23/2018 22:27
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 22:27
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 22:27
Acetone	**15**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 22:27
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 22:27
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 22:27
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:27
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 22:27
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 22:27
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 22:27
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 22:27
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 22:27
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 22:27
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 22:27
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 22:27

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-92 D
Collection Date: 10/15/2018 01:15 PM

Work Order: 18101327
Lab ID: 18101327-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**5.5**		**0.25**	**0.85**	**µg/L**	1	10/23/2018 22:27
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 22:27
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 22:27
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 22:27
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 22:27
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 22:27
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 22:27
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 22:27
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 22:27
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 22:27
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/23/2018 22:27
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 22:27
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 22:27
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:27
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 22:27
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 22:27
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 22:27
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 22:27
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 22:27
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 22:27
Tetrachloroethene	**120**		**1.4**	**4.6**	**µg/L**	5	10/25/2018 15:31
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 22:27
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 22:27
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 22:27
Trichloroethene	**2.8**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 22:27
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:27
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 22:27
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 22:27
Surr: 1,2-Dichloroethane-d4	*98.0*			*75-120*	*%REC*	1	10/23/2018 22:27
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	5	10/25/2018 15:31
Surr: 4-Bromofluorobenzene	*99.8*			*80-110*	*%REC*	1	10/23/2018 22:27
Surr: 4-Bromofluorobenzene	*100*			*80-110*	*%REC*	5	10/25/2018 15:31
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	1	10/23/2018 22:27
Surr: Dibromofluoromethane	*98.6*			*85-115*	*%REC*	5	10/25/2018 15:31
Surr: Toluene-d8	*97.8*			*85-110*	*%REC*	1	10/23/2018 22:27
Surr: Toluene-d8	*96.2*			*85-110*	*%REC*	5	10/25/2018 15:31

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 S
Collection Date: 10/16/2018 11:40 AM

Work Order: 18101327
Lab ID: 18101327-04
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	10/23/2018 22:43
1,1,1-Trichloroethane	**4.3**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 22:43
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 22:43
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	10/23/2018 22:43
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/23/2018 22:43
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 22:43
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 22:43
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 22:43
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 22:43
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:43
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 22:43
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 22:43
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 22:43
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:43
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 22:43
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 22:43
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 22:43
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 22:43
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 22:43
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:43
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 22:43
2-Butanone	**4.2**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 22:43
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 22:43
2-Propanol	U		33	110	µg/L	1	10/23/2018 22:43
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 22:43
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 22:43
Acetone	**5.4**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 22:43
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 22:43
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 22:43
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:43
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 22:43
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 22:43
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 22:43
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 22:43
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 22:43
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 22:43
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 22:43
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 22:43

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 S
Collection Date: 10/16/2018 11:40 AM

Work Order: 18101327
Lab ID: 18101327-04
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	10/23/2018 22:43
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 22:43
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 22:43
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 22:43
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 22:43
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 22:43
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 22:43
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 22:43
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 22:43
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 22:43
Methyl tert-butyl ether	**12**		**0.12**	**0.40**	**µg/L**	1	10/23/2018 22:43
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 22:43
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 22:43
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:43
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 22:43
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 22:43
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 22:43
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 22:43
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 22:43
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 22:43
Tetrachloroethene	**250**		**1.4**	**4.6**	**µg/L**	5	10/25/2018 15:46
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 22:43
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 22:43
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 22:43
Trichloroethene	**2.3**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 22:43
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:43
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 22:43
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 22:43
Surr: 1,2-Dichloroethane-d4	*99.9*			*75-120*	*%REC*	1	10/23/2018 22:43
Surr: 1,2-Dichloroethane-d4	*98.1*			*75-120*	*%REC*	5	10/25/2018 15:46
Surr: 4-Bromofluorobenzene	*98.7*			*80-110*	*%REC*	1	10/23/2018 22:43
Surr: 4-Bromofluorobenzene	*97.6*			*80-110*	*%REC*	5	10/25/2018 15:46
Surr: Dibromofluoromethane	*99.0*			*85-115*	*%REC*	1	10/23/2018 22:43
Surr: Dibromofluoromethane	*97.5*			*85-115*	*%REC*	5	10/25/2018 15:46
Surr: Toluene-d8	*96.5*			*85-110*	*%REC*	1	10/23/2018 22:43
Surr: Toluene-d8	*93.8*			*85-110*	*%REC*	5	10/25/2018 15:46

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 D
Collection Date: 10/16/2018 11:50 AM

Work Order: 18101327
Lab ID: 18101327-05
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	10/23/2018 22:58
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	10/23/2018 22:58
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 22:58
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	10/23/2018 22:58
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/23/2018 22:58
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 22:58
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 22:58
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 22:58
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 22:58
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:58
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 22:58
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 22:58
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 22:58
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:58
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 22:58
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 22:58
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 22:58
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 22:58
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 22:58
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 22:58
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 22:58
2-Butanone	**4.1**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 22:58
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 22:58
2-Propanol	U		33	110	µg/L	1	10/23/2018 22:58
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 22:58
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 22:58
Acetone	**4.9**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 22:58
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 22:58
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 22:58
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:58
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 22:58
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 22:58
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 22:58
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 22:58
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 22:58
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 22:58
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 22:58
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 22:58

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-93 D
Collection Date: 10/16/2018 11:50 AM

Work Order: 18101327
Lab ID: 18101327-05
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	10/23/2018 22:58
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 22:58
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 22:58
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 22:58
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 22:58
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 22:58
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 22:58
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 22:58
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 22:58
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 22:58
Methyl tert-butyl ether	**1.6**		**0.12**	**0.40**	**µg/L**	1	10/23/2018 22:58
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 22:58
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 22:58
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 22:58
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 22:58
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 22:58
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 22:58
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 22:58
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 22:58
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 22:58
Tetrachloroethene	**41**		**0.27**	**0.91**	**µg/L**	1	10/23/2018 22:58
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 22:58
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 22:58
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 22:58
Trichloroethene	U		0.30	0.99	µg/L	1	10/23/2018 22:58
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 22:58
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 22:58
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 22:58
Surr: 1,2-Dichloroethane-d4	*99.6*			*75-120*	*%REC*	1	10/23/2018 22:58
Surr: 4-Bromofluorobenzene	*97.0*			*80-110*	*%REC*	1	10/23/2018 22:58
Surr: Dibromofluoromethane	*99.8*			*85-115*	*%REC*	1	10/23/2018 22:58
Surr: Toluene-d8	*96.2*			*85-110*	*%REC*	1	10/23/2018 22:58

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 S
Collection Date: 10/17/2018 09:15 AM

Work Order: 18101327
Lab ID: 18101327-06
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	10/23/2018 23:13
1,1,1-Trichloroethane	**1.2**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 23:13
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 23:13
1,1,2-Trichloroethane	**7.6**		**0.40**	**1.3**	**µg/L**	1	10/23/2018 23:13
1,1-Dichloroethane	**0.67**	J	**0.31**	**1.0**	**µg/L**	1	10/23/2018 23:13
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 23:13
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 23:13
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 23:13
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 23:13
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:13
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 23:13
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 23:13
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 23:13
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:13
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 23:13
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 23:13
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 23:13
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 23:13
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 23:13
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:13
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 23:13
2-Butanone	U		0.58	2.0	µg/L	1	10/23/2018 23:13
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 23:13
2-Propanol	U		33	110	µg/L	1	10/23/2018 23:13
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 23:13
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 23:13
Acetone	**4.7**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 23:13
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 23:13
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 23:13
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:13
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 23:13
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 23:13
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 23:13
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 23:13
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 23:13
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 23:13
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 23:13
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 23:13

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-94 S
Collection Date: 10/17/2018 09:15 AM

Work Order: 18101327
Lab ID: 18101327-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**8.9**		**0.25**	**0.85**	**µg/L**	1	10/23/2018 23:13
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 23:13
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 23:13
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 23:13
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 23:13
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 23:13
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 23:13
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 23:13
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 23:13
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 23:13
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/23/2018 23:13
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 23:13
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 23:13
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:13
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 23:13
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 23:13
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 23:13
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 23:13
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 23:13
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 23:13
Tetrachloroethene	**83**		**1.4**	**4.6**	**µg/L**	5	10/25/2018 16:01
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 23:13
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 23:13
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 23:13
Trichloroethene	**3.9**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 23:13
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:13
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 23:13
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 23:13
Surr: 1,2-Dichloroethane-d4	*98.4*			*75-120*	*%REC*	1	10/23/2018 23:13
Surr: 1,2-Dichloroethane-d4	*98.3*			*75-120*	*%REC*	5	10/25/2018 16:01
Surr: 4-Bromofluorobenzene	*98.3*			*80-110*	*%REC*	1	10/23/2018 23:13
Surr: 4-Bromofluorobenzene	*101*			*80-110*	*%REC*	5	10/25/2018 16:01
Surr: Dibromofluoromethane	*102*			*85-115*	*%REC*	1	10/23/2018 23:13
Surr: Dibromofluoromethane	*97.4*			*85-115*	*%REC*	5	10/25/2018 16:01
Surr: Toluene-d8	*96.3*			*85-110*	*%REC*	1	10/23/2018 23:13
Surr: Toluene-d8	*93.9*			*85-110*	*%REC*	5	10/25/2018 16:01

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 S
Collection Date: 10/18/2018 08:00 AM

Work Order: 18101327
Lab ID: 18101327-07
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		0.22	0.74	µg/L	1	10/23/2018 23:29
1,1,1-Trichloroethane	**3.2**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 23:29
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 23:29
1,1,2-Trichloroethane	**0.45**	J	**0.40**	**1.3**	**µg/L**	1	10/23/2018 23:29
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/23/2018 23:29
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 23:29
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 23:29
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 23:29
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 23:29
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:29
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 23:29
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 23:29
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 23:29
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:29
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 23:29
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 23:29
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 23:29
1,3-Dichlorobenzene	**0.33**	J	**0.29**	**0.96**	**µg/L**	1	10/23/2018 23:29
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 23:29
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:29
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 23:29
2-Butanone	**7.8**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 23:29
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 23:29
2-Propanol	U		33	110	µg/L	1	10/23/2018 23:29
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 23:29
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 23:29
Acetone	**5.3**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 23:29
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 23:29
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 23:29
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:29
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 23:29
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 23:29
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 23:29
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 23:29
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 23:29
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 23:29
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 23:29
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 23:29

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 S
Collection Date: 10/18/2018 08:00 AM

Work Order: 18101327
Lab ID: 18101327-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**1.6**		**0.25**	**0.85**	**µg/L**	1	10/23/2018 23:29
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 23:29
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 23:29
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 23:29
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 23:29
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 23:29
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 23:29
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 23:29
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 23:29
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 23:29
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/23/2018 23:29
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 23:29
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 23:29
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:29
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 23:29
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 23:29
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 23:29
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 23:29
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 23:29
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 23:29
Tetrachloroethene	**390**		**2.7**	**9.1**	**µg/L**	10	10/25/2018 17:44
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 23:29
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 23:29
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 23:29
Trichloroethene	**3.7**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 23:29
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:29
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 23:29
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 23:29
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	10/23/2018 23:29
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	10	10/25/2018 17:44
Surr: 4-Bromofluorobenzene	*102*			*80-110*	*%REC*	1	10/23/2018 23:29
Surr: 4-Bromofluorobenzene	*96.4*			*80-110*	*%REC*	10	10/25/2018 17:44
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	10/23/2018 23:29
Surr: Dibromofluoromethane	*100*			*85-115*	*%REC*	10	10/25/2018 17:44
Surr: Toluene-d8	*97.2*			*85-110*	*%REC*	1	10/23/2018 23:29
Surr: Toluene-d8	*91.8*			*85-110*	*%REC*	10	10/25/2018 17:44

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

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 D
Collection Date: 10/18/2018 08:45 AM

Work Order: 18101327
Lab ID: 18101327-08
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	10/23/2018 23:44
1,1,1-Trichloroethane	**1.6**		**0.36**	**1.2**	**µg/L**	1	10/23/2018 23:44
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/23/2018 23:44
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	10/23/2018 23:44
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/23/2018 23:44
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/23/2018 23:44
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/23/2018 23:44
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/23/2018 23:44
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/23/2018 23:44
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:44
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/23/2018 23:44
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/23/2018 23:44
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/23/2018 23:44
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:44
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/23/2018 23:44
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/23/2018 23:44
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/23/2018 23:44
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/23/2018 23:44
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/23/2018 23:44
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/23/2018 23:44
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/23/2018 23:44
2-Butanone	**3.2**		**0.58**	**2.0**	**µg/L**	1	10/23/2018 23:44
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/23/2018 23:44
2-Propanol	U		33	110	µg/L	1	10/23/2018 23:44
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/23/2018 23:44
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/23/2018 23:44
Acetone	**4.0**		**0.92**	**3.1**	**µg/L**	1	10/23/2018 23:44
Benzene	U		0.30	1.0	µg/L	1	10/23/2018 23:44
Bromobenzene	U		0.24	0.80	µg/L	1	10/23/2018 23:44
Bromochloromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:44
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/23/2018 23:44
Bromoform	U		0.77	2.6	µg/L	1	10/23/2018 23:44
Bromomethane	U		0.38	1.3	µg/L	1	10/23/2018 23:44
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/23/2018 23:44
Chlorobenzene	U		0.27	0.90	µg/L	1	10/23/2018 23:44
Chloroethane	U		0.29	0.97	µg/L	1	10/23/2018 23:44
Chloroform	U		0.26	0.86	µg/L	1	10/23/2018 23:44
Chloromethane	U		0.17	0.57	µg/L	1	10/23/2018 23:44

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: GP-95 D
Collection Date: 10/18/2018 08:45 AM

Work Order: 18101327
Lab ID: 18101327-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**0.34**	J	**0.25**	**0.85**	**µg/L**	1	10/23/2018 23:44
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/23/2018 23:44
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/23/2018 23:44
Dibromomethane	U		0.25	0.83	µg/L	1	10/23/2018 23:44
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/23/2018 23:44
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/23/2018 23:44
Ethylbenzene	U		0.40	1.3	µg/L	1	10/23/2018 23:44
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/23/2018 23:44
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/23/2018 23:44
m,p-Xylene	U		0.98	3.3	µg/L	1	10/23/2018 23:44
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/23/2018 23:44
Methylene chloride	U		0.56	1.8	µg/L	1	10/23/2018 23:44
Naphthalene	U		0.18	0.59	µg/L	1	10/23/2018 23:44
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/23/2018 23:44
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/23/2018 23:44
o-Xylene	U		0.35	1.2	µg/L	1	10/23/2018 23:44
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/23/2018 23:44
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/23/2018 23:44
Styrene	U		0.24	0.79	µg/L	1	10/23/2018 23:44
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/23/2018 23:44
Tetrachloroethene	**220**		**2.7**	**9.1**	**µg/L**	10	10/25/2018 17:59
Toluene	U		0.37	1.2	µg/L	1	10/23/2018 23:44
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/23/2018 23:44
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/23/2018 23:44
Trichloroethene	**1.6**		**0.30**	**0.99**	**µg/L**	1	10/23/2018 23:44
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/23/2018 23:44
Vinyl chloride	U		0.20	0.68	µg/L	1	10/23/2018 23:44
Xylenes, Total	U		1.3	4.4	µg/L	1	10/23/2018 23:44
Surr: 1,2-Dichloroethane-d4	*99.8*			*75-120*	*%REC*	1	10/23/2018 23:44
Surr: 1,2-Dichloroethane-d4	*99.2*			*75-120*	*%REC*	10	10/25/2018 17:59
Surr: 4-Bromofluorobenzene	*95.8*			*80-110*	*%REC*	1	10/23/2018 23:44
Surr: 4-Bromofluorobenzene	*95.2*			*80-110*	*%REC*	10	10/25/2018 17:59
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	10/23/2018 23:44
Surr: Dibromofluoromethane	*99.0*			*85-115*	*%REC*	10	10/25/2018 17:59
Surr: Toluene-d8	*96.2*			*85-110*	*%REC*	1	10/23/2018 23:44
Surr: Toluene-d8	*93.8*			*85-110*	*%REC*	10	10/25/2018 17:59

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 10/15/2018

Work Order: 18101327
Lab ID: 18101327-09
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	10/26/2018 17:12
1,1,1-Trichloroethane	U		0.36	1.2	µg/L	1	10/26/2018 17:12
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/26/2018 17:12
1,1,2-Trichloroethane	U		0.40	1.3	µg/L	1	10/26/2018 17:12
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	10/26/2018 17:12
1,1-Dichloroethene	U		0.28	0.92	µg/L	1	10/26/2018 17:12
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/26/2018 17:12
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/26/2018 17:12
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/26/2018 17:12
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/26/2018 17:12
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/26/2018 17:12
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/26/2018 17:12
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/26/2018 17:12
1,2-Dichlorobenzene	U		0.22	0.73	µg/L	1	10/26/2018 17:12
1,2-Dichloroethane	U		0.17	0.55	µg/L	1	10/26/2018 17:12
1,2-Dichloropropane	U		0.25	0.83	µg/L	1	10/26/2018 17:12
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/26/2018 17:12
1,3-Dichlorobenzene	U		0.29	0.96	µg/L	1	10/26/2018 17:12
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/26/2018 17:12
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/26/2018 17:12
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/26/2018 17:12
2-Butanone	U		0.58	2.0	µg/L	1	10/26/2018 17:12
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/26/2018 17:12
2-Propanol	U		33	110	µg/L	1	10/26/2018 17:12
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/26/2018 17:12
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/26/2018 17:12
Acetone	U		0.92	3.1	µg/L	1	10/26/2018 17:12
Benzene	U		0.30	1.0	µg/L	1	10/26/2018 17:12
Bromobenzene	U		0.24	0.80	µg/L	1	10/26/2018 17:12
Bromochloromethane	U		0.20	0.66	µg/L	1	10/26/2018 17:12
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/26/2018 17:12
Bromoform	U		0.77	2.6	µg/L	1	10/26/2018 17:12
Bromomethane	U		0.38	1.3	µg/L	1	10/26/2018 17:12
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/26/2018 17:12
Chlorobenzene	U		0.27	0.90	µg/L	1	10/26/2018 17:12
Chloroethane	U		0.29	0.97	µg/L	1	10/26/2018 17:12
Chloroform	**0.48**	J	**0.26**	**0.86**	**µg/L**	1	10/26/2018 17:12
Chloromethane	U		0.17	0.57	µg/L	1	10/26/2018 17:12

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: Trip Blank
Collection Date: 10/15/2018

Work Order: 18101327
Lab ID: 18101327-09
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	10/26/2018 17:12
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/26/2018 17:12
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/26/2018 17:12
Dibromomethane	U		0.25	0.83	µg/L	1	10/26/2018 17:12
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/26/2018 17:12
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/26/2018 17:12
Ethylbenzene	U		0.40	1.3	µg/L	1	10/26/2018 17:12
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/26/2018 17:12
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/26/2018 17:12
m,p-Xylene	U		0.98	3.3	µg/L	1	10/26/2018 17:12
Methyl tert-butyl ether	U		0.12	0.40	µg/L	1	10/26/2018 17:12
Methylene chloride	U		0.56	1.8	µg/L	1	10/26/2018 17:12
Naphthalene	U		0.18	0.59	µg/L	1	10/26/2018 17:12
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/26/2018 17:12
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/26/2018 17:12
o-Xylene	U		0.35	1.2	µg/L	1	10/26/2018 17:12
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/26/2018 17:12
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/26/2018 17:12
Styrene	U		0.24	0.79	µg/L	1	10/26/2018 17:12
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/26/2018 17:12
Tetrachloroethene	U		0.27	0.91	µg/L	1	10/26/2018 17:12
Toluene	U		0.37	1.2	µg/L	1	10/26/2018 17:12
trans-1,2-Dichloroethene	U		0.28	0.93	µg/L	1	10/26/2018 17:12
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/26/2018 17:12
Trichloroethene	U		0.30	0.99	µg/L	1	10/26/2018 17:12
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/26/2018 17:12
Vinyl chloride	U		0.20	0.68	µg/L	1	10/26/2018 17:12
Xylenes, Total	U		1.3	4.4	µg/L	1	10/26/2018 17:12
Surr: 1,2-Dichloroethane-d4	*102*			*75-120*	*%REC*	1	10/26/2018 17:12
Surr: 4-Bromofluorobenzene	*97.8*			*80-110*	*%REC*	1	10/26/2018 17:12
Surr: Dibromofluoromethane	*101*			*85-115*	*%REC*	1	10/26/2018 17:12
Surr: Toluene-d8	*93.2*			*85-110*	*%REC*	1	10/26/2018 17:12

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MP-1
Collection Date: 10/18/2018 11:30 AM

Work Order: 18101327
Lab ID: 18101327-10
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	10/24/2018 12:15
1,1,1-Trichloroethane	**230**		**18**	**60**	**µg/L**	50	10/25/2018 17:29
1,1,2,2-Tetrachloroethane	U		0.19	0.62	µg/L	1	10/24/2018 12:15
1,1,2-Trichloroethane	**15**		**0.40**	**1.3**	**µg/L**	1	10/24/2018 12:15
1,1-Dichloroethane	**95**		**15**	**52**	**µg/L**	50	10/25/2018 17:29
1,1-Dichloroethene	**12**		**0.28**	**0.92**	**µg/L**	1	10/24/2018 12:15
1,1-Dichloropropene	U		0.35	1.2	µg/L	1	10/24/2018 12:15
1,2,3-Trichlorobenzene	U		0.17	0.55	µg/L	1	10/24/2018 12:15
1,2,3-Trichloropropane	U		0.11	0.40	µg/L	1	10/24/2018 12:15
1,2,4-Trichlorobenzene	U		0.21	0.71	µg/L	1	10/24/2018 12:15
1,2,4-Trimethylbenzene	U		0.37	1.2	µg/L	1	10/24/2018 12:15
1,2-Dibromo-3-chloropropane	U		0.97	3.2	µg/L	1	10/24/2018 12:15
1,2-Dibromoethane	U		0.98	3.3	µg/L	1	10/24/2018 12:15
1,2-Dichlorobenzene	**0.41**	J	**0.22**	**0.73**	**µg/L**	1	10/24/2018 12:15
1,2-Dichloroethane	**2.7**		**0.17**	**0.55**	**µg/L**	1	10/24/2018 12:15
1,2-Dichloropropane	**1.2**		**0.25**	**0.83**	**µg/L**	1	10/24/2018 12:15
1,3,5-Trimethylbenzene	U		0.29	0.95	µg/L	1	10/24/2018 12:15
1,3-Dichlorobenzene	**0.58**	J	**0.29**	**0.96**	**µg/L**	1	10/24/2018 12:15
1,3-Dichloropropane	U		0.18	0.61	µg/L	1	10/24/2018 12:15
1,4-Dichlorobenzene	U		0.21	0.71	µg/L	1	10/24/2018 12:15
2,2-Dichloropropane	U		0.44	1.5	µg/L	1	10/24/2018 12:15
2-Butanone	U		0.58	2.0	µg/L	1	10/24/2018 12:15
2-Chlorotoluene	U		0.32	1.1	µg/L	1	10/24/2018 12:15
2-Propanol	U		33	110	µg/L	1	10/24/2018 12:15
4-Chlorotoluene	U		0.28	0.95	µg/L	1	10/24/2018 12:15
4-Methyl-2-pentanone	U		0.11	0.40	µg/L	1	10/24/2018 12:15
Acetone	**5.5**		**0.92**	**3.1**	**µg/L**	1	10/24/2018 12:15
Benzene	**0.92**	J	**0.30**	**1.0**	**µg/L**	1	10/24/2018 12:15
Bromobenzene	U		0.24	0.80	µg/L	1	10/24/2018 12:15
Bromochloromethane	U		0.20	0.66	µg/L	1	10/24/2018 12:15
Bromodichloromethane	U		0.23	0.78	µg/L	1	10/24/2018 12:15
Bromoform	U		0.77	2.6	µg/L	1	10/24/2018 12:15
Bromomethane	U		0.38	1.3	µg/L	1	10/24/2018 12:15
Carbon tetrachloride	U		0.31	1.0	µg/L	1	10/24/2018 12:15
Chlorobenzene	**0.66**	J	**0.27**	**0.90**	**µg/L**	1	10/24/2018 12:15
Chloroethane	U		0.29	0.97	µg/L	1	10/24/2018 12:15
Chloroform	**6.9**		**0.26**	**0.86**	**µg/L**	1	10/24/2018 12:15
Chloromethane	U		0.17	0.57	µg/L	1	10/24/2018 12:15

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

ALS Group, USA

Date: *02-Nov-18*

Client: Gannett Fleming, Inc.
Project: WRR (55929.005)
Sample ID: MP-1
Collection Date: 10/18/2018 11:30 AM

Work Order: 18101327
Lab ID: 18101327-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	**340**		**13**	**42**	**µg/L**	50	10/25/2018 17:29
cis-1,3-Dichloropropene	U		0.39	1.3	µg/L	1	10/24/2018 12:15
Dibromochloromethane	U		0.38	1.2	µg/L	1	10/24/2018 12:15
Dibromomethane	U		0.25	0.83	µg/L	1	10/24/2018 12:15
Dichlorodifluoromethane	U		0.13	0.44	µg/L	1	10/24/2018 12:15
Diisopropyl ether	U		0.13	0.43	µg/L	1	10/24/2018 12:15
Ethylbenzene	U		0.40	1.3	µg/L	1	10/24/2018 12:15
Hexachlorobutadiene	U		0.24	0.80	µg/L	1	10/24/2018 12:15
Isopropylbenzene	U		0.31	1.0	µg/L	1	10/24/2018 12:15
m,p-Xylene	U		0.98	3.3	µg/L	1	10/24/2018 12:15
Methyl tert-butyl ether	**2.8**		**0.12**	**0.40**	**µg/L**	1	10/24/2018 12:15
Methylene chloride	**1.6**	J	**0.56**	**1.8**	**µg/L**	1	10/24/2018 12:15
Naphthalene	U		0.18	0.59	µg/L	1	10/24/2018 12:15
n-Butylbenzene	U		0.22	0.73	µg/L	1	10/24/2018 12:15
n-Propylbenzene	U		0.24	0.81	µg/L	1	10/24/2018 12:15
o-Xylene	U		0.35	1.2	µg/L	1	10/24/2018 12:15
p-Isopropyltoluene	U		0.14	0.48	µg/L	1	10/24/2018 12:15
sec-Butylbenzene	U		0.29	0.98	µg/L	1	10/24/2018 12:15
Styrene	U		0.24	0.79	µg/L	1	10/24/2018 12:15
tert-Butylbenzene	U		0.34	1.2	µg/L	1	10/24/2018 12:15
Tetrachloroethene	**1,900**		**14**	**46**	**µg/L**	50	10/25/2018 17:29
Toluene	U		0.37	1.2	µg/L	1	10/24/2018 12:15
trans-1,2-Dichloroethene	**4.0**		**0.28**	**0.93**	**µg/L**	1	10/24/2018 12:15
trans-1,3-Dichloropropene	U		0.82	2.7	µg/L	1	10/24/2018 12:15
Trichloroethene	**260**		**15**	**50**	**µg/L**	50	10/25/2018 17:29
Trichlorofluoromethane	U		0.20	0.66	µg/L	1	10/24/2018 12:15
Vinyl chloride	U		0.20	0.68	µg/L	1	10/24/2018 12:15
Xylenes, Total	U		1.3	4.4	µg/L	1	10/24/2018 12:15
Surr: 1,2-Dichloroethane-d4	*99.0*			*75-120*	*%REC*	1	10/24/2018 12:15
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	50	10/25/2018 17:29
Surr: 4-Bromofluorobenzene	*102*			*80-110*	*%REC*	1	10/24/2018 12:15
Surr: 4-Bromofluorobenzene	*98.0*			*80-110*	*%REC*	50	10/25/2018 17:29
Surr: Dibromofluoromethane	*99.3*			*85-115*	*%REC*	1	10/24/2018 12:15
Surr: Dibromofluoromethane	*103*			*85-115*	*%REC*	50	10/25/2018 17:29
Surr: Toluene-d8	*95.7*			*85-110*	*%REC*	1	10/24/2018 12:15
Surr: Toluene-d8	*93.6*			*85-110*	*%REC*	50	10/25/2018 17:29

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

QC BATCH REPORT

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

MBLK	Sample ID: **VBLKW2-181023-R247581b**				Units: **µg/L**			Analysis Date: **10/23/2018 09:26 P**			
Client ID:		Run ID: **VMS7_181023B**			SeqNo: **5341994**			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	33	110								
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.

Batch ID: **R247581b** 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					
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	*19.49*	0	0	*20*	0	*97.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.8*	0	0	*20*	0	*99*	*80-110*	0
Surr: Dibromofluoromethane	*19.57*	0	0	*20*	0	*97.8*	*85-115*	0
Surr: Toluene-d8	*19.31*	0	0	*20*	0	*96.6*	*85-110*	0

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW2-181023-R247581b** Units: **µg/L** Analysis Date: **10/23/2018 08:39 P**

Client ID: Run ID: **VMS7_181023B** SeqNo: **5341993** 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	19.1	0.22	0.74	20	0	95.5	73-114	0			
1,1,1-Trichloroethane	20.71	0.36	1.2	20	0	104	75-130	0			
1,1,2,2-Tetrachloroethane	19.85	0.19	0.62	20	0	99.2	75-130	0			
1,1,2-Trichloroethane	19.49	0.4	1.3	20	0	97.4	75-125	0			
1,1-Dichloroethane	21.28	0.31	1.0	20	0	106	75-133	0			
1,1-Dichloroethene	21.92	0.28	0.92	20	0	110	70-145	0			
1,1-Dichloropropene	20.31	0.35	1.2	20	0	102	75-135	0			
1,2,3-Trichlorobenzene	20.21	0.17	0.55	20	0	101	70-140	0			
1,2,3-Trichloropropane	19.06	0.11	0.40	20	0	95.3	75-125	0			
1,2,4-Trichlorobenzene	19.94	0.21	0.71	20	0	99.7	70-135	0			
1,2,4-Trimethylbenzene	19.64	0.37	1.2	20	0	98.2	75-130	0			
1,2-Dibromo-3-chloropropane	19.96	0.97	3.2	20	0	99.8	60-130	0			
1,2-Dibromoethane	20.55	0.98	3.3	20	0	103	90-195	0			
1,2-Dichlorobenzene	19.53	0.22	0.73	20	0	97.6	70-130	0			
1,2-Dichloroethane	19.83	0.17	0.55	20	0	99.2	78-125	0			
1,2-Dichloropropane	20.15	0.25	0.83	20	0	101	75-125	0			
1,3,5-Trimethylbenzene	20.16	0.29	0.95	20	0	101	75-130	0			
1,3-Dichlorobenzene	20.16	0.29	0.96	20	0	101	75-130	0			
1,3-Dichloropropane	18.65	0.18	0.61	20	0	93.2	75-125	0			
1,4-Dichlorobenzene	19.19	0.21	0.71	20	0	96	75-130	0			
2,2-Dichloropropane	20.62	0.44	1.5	20	0	103	43-150	0			
2-Butanone	22.01	0.58	2.0	20	0	110	55-150	0			
2-Chlorotoluene	19.34	0.32	1.1	20	0	96.7	84-133	0			
4-Chlorotoluene	19.37	0.28	0.95	20	0	96.8	80-125	0			
4-Methyl-2-pentanone	29.68	0.11	0.40	20	0	148	77-178	0			
Acetone	20.66	0.92	3.1	20	0	103	60-160	0			
Benzene	19.68	0.3	1.0	20	0	98.4	85-125	0			
Bromobenzene	18.53	0.24	0.80	20	0	92.6	80-125	0			
Bromochloromethane	21.05	0.2	0.66	20	0	105	72-141	0			
Bromodichloromethane	19.33	0.23	0.78	20	0	96.6	75-125	0			
Bromoform	17.5	0.77	2.6	20	0	87.5	60-125	0			
Bromomethane	23.4	0.38	1.3	20	0	117	30-185	0			
Carbon tetrachloride	20.08	0.31	1.0	20	0	100	65-140	0			
Chlorobenzene	18.76	0.27	0.90	20	0	93.8	80-120	0			
Chloroethane	20.86	0.29	0.97	20	0	104	31-172	0			
Chloroform	20.05	0.26	0.86	20	0	100	80-130	0			
Chloromethane	14.88	0.17	0.57	20	0	74.4	46-148	0			
cis-1,2-Dichloroethene	21.78	0.25	0.85	20	0	109	75-134	0			
cis-1,3-Dichloropropene	20.49	0.39	1.3	20	0	102	70-130	0			
Dibromochloromethane	17.38	0.38	1.2	20	0	86.9	60-115	0			
Dibromomethane	19.13	0.25	0.83	20	0	95.6	79-126	0			
Dichlorodifluoromethane	15.11	0.13	0.44	20	0	75.6	20-120	0			
Ethylbenzene	19.33	0.4	1.3	20	0	96.6	76-123	0			

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

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

Hexachlorobutadiene	20.57	0.24	0.80	20	0	103	70-155	0
Isopropylbenzene	19.8	0.31	1.0	20	0	99	80-127	0
m,p-Xylene	37.07	0.98	3.3	40	0	92.7	75-130	0
Methyl tert-butyl ether	23.83	0.12	0.40	20	0	119	80-130	0
Methylene chloride	20.63	0.56	1.8	20	0	103	75-140	0
Naphthalene	20.27	0.18	0.59	20	0	101	55-160	0
n-Butylbenzene	21.53	0.22	0.73	20	0	108	75-145	0
n-Propylbenzene	19.43	0.24	0.81	20	0	97.2	83-135	0
o-Xylene	19.76	0.35	1.2	20	0	98.8	80-125	0
p-Isopropyltoluene	21.47	0.14	0.48	20	0	107	61-164	0
sec-Butylbenzene	19.92	0.29	0.98	20	0	99.6	80-134	0
Styrene	20.59	0.24	0.79	20	0	103	83-137	0
tert-Butylbenzene	20.7	0.34	1.2	20	0	104	70-130	0
Tetrachloroethene	20.02	0.27	0.91	20	0	100	68-166	0
Toluene	18.84	0.37	1.2	20	0	94.2	76-125	0
trans-1,2-Dichloroethene	21.49	0.28	0.93	20	0	107	80-140	0
trans-1,3-Dichloropropene	18.58	0.82	2.7	20	0	92.9	56-132	0
Trichloroethene	20.63	0.3	0.99	20	0	103	84-130	0
Trichlorofluoromethane	19.89	0.2	0.66	20	0	99.4	60-140	0
Vinyl chloride	18.97	0.2	0.68	20	0	94.8	50-136	0
Xylenes, Total	56.83	1.3	4.4	60	0	94.7	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.16*	0	0	*20*	0	*95.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.56*	0	0	*20*	0	*97.8*	*80-110*	0
Surr: Dibromofluoromethane	*19.48*	0	0	*20*	0	*97.4*	*85-115*	0
Surr: Toluene-d8	*19.27*	0	0	*20*	0	*96.4*	*85-110*	0

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **18101327-08A MS** Units: **µg/L** Analysis Date: **10/24/2018 02:49 A**

Client ID: **GP-95 D** Run ID: **VMS7_181023B** SeqNo: **5342014** 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	20.52	0.22	0.74	20	0	103	73-114	0			
1,1,1-Trichloroethane	24.72	0.36	1.2	20	1.56	116	75-130	0			
1,1,2,2-Tetrachloroethane	20.61	0.19	0.62	20	0	103	75-130	0			
1,1,2-Trichloroethane	21.38	0.4	1.3	20	0	107	75-125	0			
1,1-Dichloroethane	22.29	0.31	1.0	20	0	111	75-133	0			
1,1-Dichloroethene	25.01	0.28	0.92	20	0	125	70-145	0			
1,1-Dichloropropene	21.8	0.35	1.2	20	0	109	75-135	0			
1,2,3-Trichlorobenzene	18.43	0.17	0.55	20	0	92.2	70-140	0			
1,2,3-Trichloropropane	20.12	0.11	0.40	20	0	101	75-125	0			
1,2,4-Trichlorobenzene	17.84	0.21	0.71	20	0	89.2	70-135	0			
1,2,4-Trimethylbenzene	20.22	0.37	1.2	20	0	101	75-130	0			
1,2-Dibromo-3-chloropropane	18.23	0.97	3.2	20	0	91.2	60-130	0			
1,2-Dibromoethane	21.86	0.98	3.3	20	0	109	90-195	0			
1,2-Dichlorobenzene	19.07	0.22	0.73	20	0	95.4	70-130	0			
1,2-Dichloroethane	20.59	0.17	0.55	20	0	103	78-125	0			
1,2-Dichloropropane	20.42	0.25	0.83	20	0	102	75-125	0			
1,3,5-Trimethylbenzene	20.42	0.29	0.95	20	0	102	75-130	0			
1,3-Dichlorobenzene	19.65	0.29	0.96	20	0.16	97.4	75-130	0			
1,3-Dichloropropane	20.15	0.18	0.61	20	0	101	75-125	0			
1,4-Dichlorobenzene	18.57	0.21	0.71	20	0	92.8	75-130	0			
2,2-Dichloropropane	19.35	0.44	1.5	20	0	96.8	43-150	0			
2-Butanone	22.96	0.58	2.0	20	3.15	99	55-150	0			
2-Chlorotoluene	20.38	0.32	1.1	20	0	102	84-133	0			
4-Chlorotoluene	19.81	0.28	0.95	20	0	99	80-125	0			
4-Methyl-2-pentanone	29.44	0.11	0.40	20	0	147	77-178	0			
Acetone	22.54	0.92	3.1	20	4.03	92.6	60-160	0			
Benzene	20.92	0.3	1.0	20	0	105	85-125	0			
Bromobenzene	19.5	0.24	0.80	20	0	97.5	80-125	0			
Bromochloromethane	22.57	0.2	0.66	20	0	113	72-141	0			
Bromodichloromethane	20.57	0.23	0.78	20	0	103	75-125	0			
Bromoform	18.98	0.77	2.6	20	0	94.9	60-125	0			
Bromomethane	245.6	0.38	1.3	20	0	1230	30-185	0			SE
Carbon tetrachloride	23.12	0.31	1.0	20	0	116	65-140	0			
Chlorobenzene	19.68	0.27	0.90	20	0	98.4	80-120	0			
Chloroethane	25.7	0.29	0.97	20	0	128	31-172	0			
Chloroform	21.4	0.26	0.86	20	0	107	80-130	0			
Chloromethane	12.66	0.17	0.57	20	0	63.3	46-148	0			
cis-1,2-Dichloroethene	22.74	0.25	0.85	20	0.34	112	75-134	0			
cis-1,3-Dichloropropene	19.56	0.39	1.3	20	0	97.8	70-130	0			
Dibromochloromethane	18.8	0.38	1.2	20	0	94	60-115	0			
Dibromomethane	20.19	0.25	0.83	20	0	101	79-126	0			
Dichlorodifluoromethane	19.4	0.13	0.44	20	0	97	20-120	0			
Ethylbenzene	20.18	0.4	1.3	20	0	101	76-123	0			

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

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

Hexachlorobutadiene	18.07	0.24	0.80	20	0	90.4	70-155	0	
Isopropylbenzene	20.96	0.31	1.0	20	0	105	80-127	0	
m,p-Xylene	38.36	0.98	3.3	40	0	95.9	75-130	0	
Methyl tert-butyl ether	23.45	0.12	0.40	20	0	117	80-130	0	
Methylene chloride	20.98	0.56	1.8	20	0	105	75-140	0	
Naphthalene	18.14	0.18	0.59	20	0	90.7	55-160	0	
n-Butylbenzene	20.22	0.22	0.73	20	0	101	75-145	0	
n-Propylbenzene	20.64	0.24	0.81	20	0	103	83-135	0	
o-Xylene	20.66	0.35	1.2	20	0	103	80-125	0	
p-Isopropyltoluene	20.56	0.14	0.48	20	0	103	61-164	0	
sec-Butylbenzene	20.69	0.29	0.98	20	0	103	80-134	0	
Styrene	20.99	0.24	0.79	20	0	105	83-137	0	
tert-Butylbenzene	20.72	0.34	1.2	20	0	104	70-130	0	
Tetrachloroethene	341.1	0.27	0.91	20	312.6	143	68-166	0	EO
Toluene	20.12	0.37	1.2	20	0	101	76-125	0	
trans-1,2-Dichloroethene	23.26	0.28	0.93	20	0	116	80-140	0	
trans-1,3-Dichloropropene	18.23	0.82	2.7	20	0	91.2	56-132	0	
Trichloroethene	23.12	0.3	0.99	20	1.55	108	84-130	0	
Trichlorofluoromethane	24.71	0.2	0.66	20	0	124	60-140	0	
Vinyl chloride	19.83	0.2	0.68	20	0	99.2	50-136	0	
Xylenes, Total	59.02	1.3	4.4	60	0	98.4	80-126	0	
Surr: 1,2-Dichloroethane-d4	*19.93*	0	0	*20*	0	*99.6*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*20.8*	0	0	*20*	0	*104*	*80-110*	0	
Surr: Dibromofluoromethane	*20.44*	0	0	*20*	0	*102*	*85-115*	0	
Surr: Toluene-d8	*19.59*	0	0	*20*	0	*98*	*85-110*	0	

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

DUP Sample ID: **18101327-07ADUP** Units: **µg/L** Analysis Date: **10/24/2018 02:34 A**

Client ID: **GP-95 S** Run ID: **VMS7_181023B** SeqNo: **5342013** 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	0	0	0		0	0	30	
1,1,1-Trichloroethane	2.43	0.36	1.2	0	0	0		3.18	26.7	30	
1,1,2,2-Tetrachloroethane	U	0.19	0.62	0	0	0		0	0	30	
1,1,2-Trichloroethane	U	0.4	1.3	0	0	0		0.45	0	30	
1,1-Dichloroethane	U	0.31	1.0	0	0	0		0.29	0	30	
1,1-Dichloroethene	U	0.28	0.92	0	0	0		0	0	30	
1,1-Dichloropropene	U	0.35	1.2	0	0	0		0	0	30	
1,2,3-Trichlorobenzene	U	0.17	0.55	0	0	0		0	0	30	
1,2,3-Trichloropropane	U	0.11	0.40	0	0	0		0	0	30	
1,2,4-Trichlorobenzene	U	0.21	0.71	0	0	0		0	0	30	
1,2,4-Trimethylbenzene	U	0.37	1.2	0	0	0		0	0	30	
1,2-Dibromo-3-chloropropane	U	0.97	3.2	0	0	0		0	0	30	
1,2-Dibromoethane	U	0.98	3.3	0	0	0		0	0	30	
1,2-Dichlorobenzene	U	0.22	0.73	0	0	0		0.13	0	30	
1,2-Dichloroethane	U	0.17	0.55	0	0	0		0	0	30	
1,2-Dichloropropane	U	0.25	0.83	0	0	0		0	0	30	
1,3,5-Trimethylbenzene	U	0.29	0.95	0	0	0		0	0	30	
1,3-Dichlorobenzene	U	0.29	0.96	0	0	0		0.33	0	30	
1,3-Dichloropropane	U	0.18	0.61	0	0	0		0	0	30	
1,4-Dichlorobenzene	U	0.21	0.71	0	0	0		0	0	30	
2,2-Dichloropropane	U	0.44	1.5	0	0	0		0	0	30	
2-Butanone	4.6	0.58	2.0	0	0	0		7.82	51.9	30	R
2-Chlorotoluene	U	0.32	1.1	0	0	0		0	0	30	
2-Propanol	U	33	110	0	0	0		0	0		
4-Chlorotoluene	U	0.28	0.95	0	0	0		0	0	30	
4-Methyl-2-pentanone	U	0.11	0.40	0	0	0		0	0	30	
Acetone	3.08	0.92	3.1	0	0	0		5.3	0	30	J
Benzene	U	0.3	1.0	0	0	0		0	0	30	
Bromobenzene	U	0.24	0.80	0	0	0		0	0	30	
Bromochloromethane	U	0.2	0.66	0	0	0		0	0	30	
Bromodichloromethane	U	0.23	0.78	0	0	0		0	0	30	
Bromoform	U	0.77	2.6	0	0	0		0	0	30	
Bromomethane	U	0.38	1.3	0	0	0		0	0	30	
Carbon tetrachloride	U	0.31	1.0	0	0	0		0	0	30	
Chlorobenzene	U	0.27	0.90	0	0	0		0	0	30	
Chloroethane	U	0.29	0.97	0	0	0		0	0	30	
Chloroform	U	0.26	0.86	0	0	0		0	0	30	
Chloromethane	U	0.17	0.57	0	0	0		0	0	30	
cis-1,2-Dichloroethene	1.23	0.25	0.85	0	0	0		1.57	24.3	30	
cis-1,3-Dichloropropene	U	0.39	1.3	0	0	0		0	0	30	
Dibromochloromethane	U	0.38	1.2	0	0	0		0	0	30	
Dibromomethane	U	0.25	0.83	0	0	0		0	0	30	
Dichlorodifluoromethane	U	0.13	0.44	0	0	0		0	0	30	

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247581b** Instrument ID **VMS7** Method: **SW8260C**

Diisopropyl ether	U	0.13	0.43	0	0	0		0	0	30	
Ethylbenzene	U	0.4	1.3	0	0	0		0	0	30	
Hexachlorobutadiene	U	0.24	0.80	0	0	0		0	0	30	
Isopropylbenzene	U	0.31	1.0	0	0	0		0	0	30	
m,p-Xylene	U	0.98	3.3	0	0	0		0.17	0	30	
Methyl tert-butyl ether	U	0.12	0.40	0	0	0		0	0	30	
Methylene chloride	U	0.56	1.8	0	0	0		0	0	30	
Naphthalene	U	0.18	0.59	0	0	0		0	0	30	
n-Butylbenzene	U	0.22	0.73	0	0	0		0	0	30	
n-Propylbenzene	U	0.24	0.81	0	0	0		0	0	30	
o-Xylene	U	0.35	1.2	0	0	0		0	0	30	
p-Isopropyltoluene	U	0.14	0.48	0	0	0		0	0	30	
sec-Butylbenzene	U	0.29	0.98	0	0	0		0	0	30	
Styrene	U	0.24	0.79	0	0	0		0	0	30	
tert-Butylbenzene	U	0.34	1.2	0	0	0		0	0	30	
Tetrachloroethene	333.5	0.27	0.91	0	0	0		397.3	17.5	30	E
Toluene	U	0.37	1.2	0	0	0		0.32	0	30	
trans-1,2-Dichloroethene	U	0.28	0.93	0	0	0		0	0	30	
trans-1,3-Dichloropropene	U	0.82	2.7	0	0	0		0	0	30	
Trichloroethene	2.86	0.3	0.99	0	0	0		3.66	24.5	30	
Trichlorofluoromethane	U	0.2	0.66	0	0	0		0	0	30	
Vinyl chloride	U	0.2	0.68	0	0	0		0	0	30	
Xylenes, Total	U	1.3	4.4	0	0	0		0	0	30	
Surr: 1,2-Dichloroethane-d4	*20.04*	0	0	*20*	0	*100*	*75-120*	20.04	*0*	*30*	
Surr: 4-Bromofluorobenzene	*20.49*	0	0	*20*	0	*102*	*80-110*	20.45	*0.195*	*30*	
Surr: Dibromofluoromethane	*20.22*	0	0	*20*	0	*101*	*85-115*	20.11	*0.545*	*30*	
Surr: Toluene-d8	*19.21*	0	0	*20*	0	*96*	*85-110*	19.44	*1.19*	*30*	

The following samples were analyzed in this batch:

18101327-01A	18101327-02A	18101327-03A
18101327-04A	18101327-05A	18101327-06A
18101327-07A	18101327-08A	18101327-09A
18101327-10A		

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247745b** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-181025-R247745b** Units: **µg/L** Analysis Date: **10/25/2018 12:17 P**
Client ID: Run ID: **VMS7_181025A** SeqNo: **5346051** 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								
1,1-Dichloroethane	U	0.31	1.0								
cis-1,2-Dichloroethene	U	0.25	0.85								
Tetrachloroethene	U	0.27	0.91								
Trichloroethene	U	0.3	0.99								
Surr: 1,2-Dichloroethane-d4	*19.65*	0	0	*20*	0	*98.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.7*	0	0	*20*	0	*98.5*	*80-110*	0			
Surr: Dibromofluoromethane	*19.64*	0	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*18.96*	0	0	*20*	0	*94.8*	*85-110*	0			

LCS Sample ID: **VLCSW1-181025-R247745b** Units: **µg/L** Analysis Date: **10/25/2018 11:31 A**
Client ID: Run ID: **VMS7_181025A** SeqNo: **5347719** 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	18.34	0.36	1.2	20	0	91.7	75-130	0			
1,1-Dichloroethane	18.69	0.31	1.0	20	0	93.4	75-133	0			
cis-1,2-Dichloroethene	20.15	0.25	0.85	20	0	101	75-134	0			
Tetrachloroethene	17.59	0.27	0.91	20	0	88	68-166	0			
Trichloroethene	17.82	0.3	0.99	20	0	89.1	84-130	0			
Surr: 1,2-Dichloroethane-d4	*19.2*	0	0	*20*	0	*96*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.4*	0	0	*20*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*19.65*	0	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*19.06*	0	0	*20*	0	*95.3*	*85-110*	0			

MS Sample ID: **18101379-02A MS** Units: **µg/L** Analysis Date: **10/25/2018 07:16 P**
Client ID: Run ID: **VMS7_181025A** SeqNo: **5346080** 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	2131	36	120	2000	0	107	75-130	0			
1,1-Dichloroethane	2105	31	100	2000	0	105	75-133	0			
cis-1,2-Dichloroethene	2113	25	85	2000	33	104	75-134	0			
Tetrachloroethene	2071	27	91	2000	0	104	68-166	0			
Trichloroethene	2038	30	99	2000	0	102	84-130	0			
Surr: 1,2-Dichloroethane-d4	*2000*	0	0	*2000*	0	*100*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1959*	0	0	*2000*	0	*98*	*80-110*	0			
Surr: Dibromofluoromethane	*2063*	0	0	*2000*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*1935*	0	0	*2000*	0	*96.8*	*85-110*	0			

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247745b** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **18101379-02A MSD** Units: **µg/L** Analysis Date: **10/25/2018 07:31 P**

Client ID: Run ID: **VMS7_181025A** SeqNo: **5346082** 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	2311	36	120	2000	0	116	75-130	2131	8.1	30	
1,1-Dichloroethane	2139	31	100	2000	0	107	75-133	2105	1.6	30	
cis-1,2-Dichloroethene	2244	25	85	2000	33	111	75-134	2113	6.01	30	
Tetrachloroethene	2165	27	91	2000	0	108	68-166	2071	4.44	30	
Trichloroethene	2096	30	99	2000	0	105	84-130	2038	2.81	30	
Surr: 1,2-Dichloroethane-d4	*1981*	0	0	*2000*	0	*99*	*75-120*	2000	*0.955*	*30*	
Surr: 4-Bromofluorobenzene	*2025*	0	0	*2000*	0	*101*	*80-110*	1959	*3.31*	*30*	
Surr: Dibromofluoromethane	*2126*	0	0	*2000*	0	*106*	*85-115*	2063	*3.01*	*30*	
Surr: Toluene-d8	*1906*	0	0	*2000*	0	*95.3*	*85-110*	1935	*1.51*	*30*	

The following samples were analyzed in this batch:

18101327-01A	18101327-02A	18101327-03A
18101327-04A	18101327-06A	18101327-07A
18101327-08A	18101327-10A	

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

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-181026-R247841b** Units: **µg/L** Analysis Date: **10/26/2018 12:24 P**

Client ID: Run ID: **VMS7_181026A** SeqNo: **5347206** 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	33	110								
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.

Batch ID: **R247841b** Instrument ID **VMS7** 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	*20.23*	0	0	*20*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.48*	0	0	*20*	0	*97.4*	*80-110*	0
Surr: Dibromofluoromethane	*19.9*	0	0	*20*	0	*99.5*	*85-115*	0
Surr: Toluene-d8	*18.76*	0	0	*20*	0	*93.8*	*85-110*	0

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

LCS Sample ID: **VLCSW1-181026-R247841b** Units: **µg/L** Analysis Date: **10/26/2018 11:38 A**

Client ID: Run ID: **VMS7_181026A** SeqNo: **5347203** 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	21.1	0.22	0.74	20	0	106	73-114	0			
1,1,1-Trichloroethane	24.12	0.36	1.2	20	0	121	75-130	0			
1,1,2,2-Tetrachloroethane	20.77	0.19	0.62	20	0	104	75-130	0			
1,1,2-Trichloroethane	20.4	0.4	1.3	20	0	102	75-125	0			
1,1-Dichloroethane	22.96	0.31	1.0	20	0	115	75-133	0			
1,1-Dichloroethene	20.75	0.28	0.92	20	0	104	70-145	0			
1,1-Dichloropropene	22.68	0.35	1.2	20	0	113	75-135	0			
1,2,3-Trichlorobenzene	20.19	0.17	0.55	20	0	101	70-140	0			
1,2,3-Trichloropropane	20.55	0.11	0.40	20	0	103	75-125	0			
1,2,4-Trichlorobenzene	20.18	0.21	0.71	20	0	101	70-135	0			
1,2,4-Trimethylbenzene	20.63	0.37	1.2	20	0	103	75-130	0			
1,2-Dibromo-3-chloropropane	19.91	0.97	3.2	20	0	99.6	60-130	0			
1,2-Dibromoethane	22.05	0.98	3.3	20	0	110	90-195	0			
1,2-Dichlorobenzene	19.89	0.22	0.73	20	0	99.4	70-130	0			
1,2-Dichloroethane	22.42	0.17	0.55	20	0	112	78-125	0			
1,2-Dichloropropane	21.94	0.25	0.83	20	0	110	75-125	0			
1,3,5-Trimethylbenzene	20.97	0.29	0.95	20	0	105	75-130	0			
1,3-Dichlorobenzene	20.77	0.29	0.96	20	0	104	75-130	0			
1,3-Dichloropropane	20.12	0.18	0.61	20	0	101	75-125	0			
1,4-Dichlorobenzene	20.01	0.21	0.71	20	0	100	75-130	0			
2,2-Dichloropropane	25.33	0.44	1.5	20	0	127	43-150	0			
2-Butanone	23.3	0.58	2.0	20	0	116	55-150	0			
2-Chlorotoluene	20.19	0.32	1.1	20	0	101	84-133	0			
4-Chlorotoluene	20.6	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	22.66	0.92	3.1	20	0	113	60-160	0			
Benzene	21.9	0.3	1.0	20	0	110	85-125	0			
Bromobenzene	19.87	0.24	0.80	20	0	99.4	80-125	0			
Bromochloromethane	23.08	0.2	0.66	20	0	115	72-141	0			
Bromodichloromethane	22.03	0.23	0.78	20	0	110	75-125	0			
Bromoform	19.62	0.77	2.6	20	0	98.1	60-125	0			
Bromomethane	30.76	0.38	1.3	20	0	154	30-185	0			
Carbon tetrachloride	23.4	0.31	1.0	20	0	117	65-140	0			
Chlorobenzene	19.97	0.27	0.90	20	0	99.8	80-120	0			
Chloroethane	25.75	0.29	0.97	20	0	129	31-172	0			
Chloroform	22.52	0.26	0.86	20	0	113	80-130	0			
Chloromethane	17.01	0.17	0.57	20	0	85	46-148	0			
cis-1,2-Dichloroethene	23.8	0.25	0.85	20	0	119	75-134	0			
cis-1,3-Dichloropropene	22.18	0.39	1.3	20	0	111	70-130	0			
Dibromochloromethane	19.15	0.38	1.2	20	0	95.8	60-115	0			
Dibromomethane	21.76	0.25	0.83	20	0	109	79-126	0			
Dichlorodifluoromethane	19.26	0.13	0.44	20	0	96.3	20-120	0			
Ethylbenzene	20.25	0.4	1.3	20	0	101	76-123	0			

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

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

Hexachlorobutadiene	22.47	0.24	0.80	20	0	112	70-155	0	
Isopropylbenzene	20.85	0.31	1.0	20	0	104	80-127	0	
m,p-Xylene	38.65	0.98	3.3	40	0	96.6	75-130	0	
Methyl tert-butyl ether	26.05	0.12	0.40	20	0	130	80-130	0	S
Methylene chloride	23.46	0.56	1.8	20	0	117	75-140	0	
Naphthalene	19.08	0.18	0.59	20	0	95.4	55-160	0	
n-Butylbenzene	22.23	0.22	0.73	20	0	111	75-145	0	
n-Propylbenzene	20.58	0.24	0.81	20	0	103	83-135	0	
o-Xylene	20.64	0.35	1.2	20	0	103	80-125	0	
p-Isopropyltoluene	21.97	0.14	0.48	20	0	110	61-164	0	
sec-Butylbenzene	21.04	0.29	0.98	20	0	105	80-134	0	
Styrene	21.57	0.24	0.79	20	0	108	83-137	0	
tert-Butylbenzene	22.19	0.34	1.2	20	0	111	70-130	0	
Tetrachloroethene	21.77	0.27	0.91	20	0	109	68-166	0	
Toluene	19.83	0.37	1.2	20	0	99.2	76-125	0	
trans-1,2-Dichloroethene	24.04	0.28	0.93	20	0	120	80-140	0	
trans-1,3-Dichloropropene	20.16	0.82	2.7	20	0	101	56-132	0	
Trichloroethene	22.61	0.3	0.99	20	0	113	84-130	0	
Trichlorofluoromethane	24.71	0.2	0.66	20	0	124	60-140	0	
Vinyl chloride	21.42	0.2	0.68	20	0	107	50-136	0	
Xylenes, Total	59.29	1.3	4.4	60	0	98.8	80-126	0	
Surr: 1,2-Dichloroethane-d4	*20.26*	0	0	*20*	0	*101*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*20.15*	0	0	*20*	0	*101*	*80-110*	0	
Surr: Dibromofluoromethane	*21.16*	0	0	*20*	0	*106*	*85-115*	0	
Surr: Toluene-d8	*18.99*	0	0	*20*	0	*95*	*85-110*	0	

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

MS Sample ID: **18101379-01A MS** Units: **µg/L** Analysis Date: **10/26/2018 10:19 P**

Client ID: Run ID: **VMS7_181026A** SeqNo: **5349157** 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	335.6	4.4	15	400	0	83.9	73-114	0			
1,1,1-Trichloroethane	393.2	7.2	24	400	0	98.3	75-130	0			
1,1,2,2-Tetrachloroethane	350.8	3.7	12	400	0	87.7	75-130	0			
1,1,2-Trichloroethane	350.2	8	27	400	0	87.6	75-125	0			
1,1-Dichloroethane	389.2	6.2	21	400	0	97.3	75-133	0			
1,1-Dichloroethene	440	5.5	18	400	0	110	70-145	0			
1,1-Dichloropropene	364.8	7.1	24	400	0	91.2	75-135	0			
1,2,3-Trichlorobenzene	323.2	3.3	11	400	0	80.8	70-140	0			
1,2,3-Trichloropropane	349.4	2.2	8.0	400	0	87.4	75-125	0			
1,2,4-Trichlorobenzene	310.8	4.3	14	400	0	77.7	70-135	0			
1,2,4-Trimethylbenzene	337.4	7.4	25	400	2	83.8	75-130	0			
1,2-Dibromo-3-chloropropane	306.8	19	65	400	0	76.7	60-130	0			
1,2-Dibromoethane	368.6	20	66	400	0	92.2	90-195	0			
1,2-Dichlorobenzene	317.2	4.4	15	400	0	79.3	70-130	0			
1,2-Dichloroethane	385.2	3.3	11	400	0	96.3	78-125	0			
1,2-Dichloropropane	500.4	5	17	400	0	125	75-125	0			S
1,3,5-Trimethylbenzene	344.4	5.7	19	400	0	86.1	75-130	0			
1,3-Dichlorobenzene	332	5.8	19	400	0	83	75-130	0			
1,3-Dichloropropane	342	3.7	12	400	0	85.5	75-125	0			
1,4-Dichlorobenzene	315.6	4.3	14	400	0	78.9	75-130	0			
2,2-Dichloropropane	384.6	8.9	30	400	0	96.2	43-150	0			
2-Butanone	419.4	12	39	400	0	105	55-150	0			
2-Chlorotoluene	338.4	6.5	22	400	0	84.6	76-117	0			
4-Chlorotoluene	338.4	5.7	19	400	0	84.6	80-125	0			
4-Methyl-2-pentanone	527.6	2.3	8.0	400	0	132	77-178	0			
Acetone	385	18	61	400	0	96.2	60-160	0			
Benzene	360.8	6.1	20	400	0	90.2	85-125	0			
Bromobenzene	327.4	4.8	16	400	0	81.8	80-125	0			
Bromochloromethane	411.6	3.9	13	400	0	103	72-141	0			
Bromodichloromethane	340.8	4.7	16	400	0	85.2	75-125	0			
Bromoform	299.4	15	51	400	0	74.8	60-125	0			
Bromomethane	3393	7.5	25	400	0	848	30-185	0			SE
Carbon tetrachloride	380.4	6.2	21	400	0	95.1	65-140	0			
Chlorobenzene	325	5.4	18	400	0	81.2	80-120	0			
Chloroethane	420.8	5.8	19	400	0	105	31-172	0			
Chloroform	376.2	5.1	17	400	0	94	80-130	0			
Chloromethane	262	3.4	11	400	0	65.5	46-148	0			
cis-1,2-Dichloroethene	407.6	5.1	17	400	21.4	96.6	75-134	0			
cis-1,3-Dichloropropene	348.8	7.8	26	400	0	87.2	70-130	0			
Dibromochloromethane	296.6	7.5	25	400	0	74.2	60-115	0			
Dibromomethane	356.6	5	17	400	0	89.2	79-126	0			
Dichlorodifluoromethane	373.4	2.7	8.8	400	6	91.8	20-120	0			
Ethylbenzene	948.8	8.1	27	400	561.8	96.8	76-123	0			

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

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

Hexachlorobutadiene	317.6	4.8	16	400	0	79.4	70-155	0
Isopropylbenzene	350.2	6.3	21	400	0	87.6	80-127	0
m,p-Xylene	1684	20	65	800	979.2	88.1	75-130	0
Methyl tert-butyl ether	429.6	2.3	8.0	400	0	107	80-130	0
Methylene chloride	376.6	11	37	400	0	94.2	75-140	0
Naphthalene	312.2	3.5	12	400	0	78	55-160	0
n-Butylbenzene	343	4.4	15	400	0	85.8	75-145	0
n-Propylbenzene	346	4.9	16	400	0	86.5	83-135	0
o-Xylene	793.2	7.1	24	400	399	98.6	80-125	0
p-Isopropyltoluene	351.2	2.9	9.6	400	0	87.8	61-164	0
sec-Butylbenzene	355.2	5.9	20	400	0	88.8	80-134	0
Styrene	372.2	4.8	16	400	0	93	83-137	0
tert-Butylbenzene	351.2	6.9	23	400	0	87.8	70-130	0
Tetrachloroethene	401.6	5.5	18	400	0	100	68-166	0
Toluene	358.6	7.3	24	400	30.2	82.1	76-125	0
trans-1,2-Dichloroethene	403.2	5.6	19	400	0	101	80-140	0
trans-1,3-Dichloropropene	316	16	55	400	0	79	56-132	0
Trichloroethene	374	6	20	400	0	93.5	84-130	0
Trichlorofluoromethane	427.4	4	13	400	0	107	60-140	0
Vinyl chloride	486.6	4.1	14	400	125.2	90.4	50-136	0
Xylenes, Total	2477	27	89	1200	1378	91.6	80-126	0
Surr: 1,2-Dichloroethane-d4	*403*	0	0	*400*	0	*101*	*75-120*	0
Surr: 4-Bromofluorobenzene	*406.2*	0	0	*400*	0	*102*	*80-110*	0
Surr: Dibromofluoromethane	*417.8*	0	0	*400*	0	*104*	*85-115*	0
Surr: Toluene-d8	*381*	0	0	*400*	0	*95.2*	*85-110*	0

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247841b** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **18101379-01A MSD** Units: **µg/L** Analysis Date: **10/26/2018 10:35 P**

Client ID: Run ID: **VMS7_181026A** SeqNo: **5349160** 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	391.6	4.4	15	400	0	97.9	73-114	335.6	15.4	30	
1,1,1-Trichloroethane	472.2	7.2	24	400	0	118	75-130	393.2	18.3	30	
1,1,2,2-Tetrachloroethane	398.8	3.7	12	400	0	99.7	75-130	350.8	12.8	30	
1,1,2-Trichloroethane	410	8	27	400	0	102	75-125	350.2	15.7	30	
1,1-Dichloroethane	474.2	6.2	21	400	0	119	75-133	389.2	19.7	30	
1,1-Dichloroethene	514.2	5.5	18	400	0	129	70-145	440	15.6	30	
1,1-Dichloropropene	453.4	7.1	24	400	0	113	75-135	364.8	21.7	30	
1,2,3-Trichlorobenzene	378	3.3	11	400	0	94.5	70-140	323.2	15.6	30	
1,2,3-Trichloropropane	386.2	2.2	8.0	400	0	96.6	75-125	349.4	10	30	
1,2,4-Trichlorobenzene	368.6	4.3	14	400	0	92.2	70-135	310.8	17	30	
1,2,4-Trimethylbenzene	409.6	7.4	25	400	2	102	75-130	337.4	19.3	30	
1,2-Dibromo-3-chloropropane	368.8	19	65	400	0	92.2	60-130	306.8	18.4	30	
1,2-Dibromoethane	436.4	20	66	400	0	109	90-195	368.6	16.8	30	
1,2-Dichlorobenzene	379.4	4.4	15	400	0	94.8	70-130	317.2	17.9	30	
1,2-Dichloroethane	435.6	3.3	11	400	0	109	78-125	385.2	12.3	30	
1,2-Dichloropropane	444	5	17	400	0	111	75-125	500.4	11.9	30	
1,3,5-Trimethylbenzene	415.4	5.7	19	400	0	104	75-130	344.4	18.7	30	
1,3-Dichlorobenzene	392.8	5.8	19	400	0	98.2	75-130	332	16.8	30	
1,3-Dichloropropane	399.8	3.7	12	400	0	100	75-125	342	15.6	30	
1,4-Dichlorobenzene	371.2	4.3	14	400	0	92.8	75-130	315.6	16.2	30	
2,2-Dichloropropane	456.8	8.9	30	400	0	114	43-150	384.6	17.2	30	
2-Butanone	493.6	12	39	400	0	123	55-150	419.4	16.3	30	
2-Chlorotoluene	412.2	6.5	22	400	0	103	76-117	338.4	19.7	30	
4-Chlorotoluene	400.6	5.7	19	400	0	100	80-125	338.4	16.8	30	
4-Methyl-2-pentanone	620.4	2.3	8.0	400	0	155	77-178	527.6	16.2	30	
Acetone	441.4	18	61	400	0	110	60-160	385	13.6	30	
Benzene	435	6.1	20	400	0	109	85-125	360.8	18.6	30	
Bromobenzene	383.6	4.8	16	400	0	95.9	80-125	327.4	15.8	30	
Bromochloromethane	489.6	3.9	13	400	0	122	72-141	411.6	17.3	30	
Bromodichloromethane	415.4	4.7	16	400	0	104	75-125	340.8	19.7	30	
Bromoform	358.2	15	51	400	0	89.6	60-125	299.4	17.9	30	
Bromomethane	4948	7.5	25	400	0	1240	30-185	3393	37.3	30	SRE
Carbon tetrachloride	465.4	6.2	21	400	0	116	65-140	380.4	20.1	30	
Chlorobenzene	390.4	5.4	18	400	0	97.6	80-120	325	18.3	30	
Chloroethane	517	5.8	19	400	0	129	31-172	420.8	20.5	30	
Chloroform	450.8	5.1	17	400	0	113	80-130	376.2	18	30	
Chloromethane	280	3.4	11	400	0	70	46-148	262	6.64	30	
cis-1,2-Dichloroethene	503.4	5.1	17	400	21.4	120	75-134	407.6	21	30	
cis-1,3-Dichloropropene	411.8	7.8	26	400	0	103	70-130	348.8	16.6	30	
Dibromochloromethane	354.4	7.5	25	400	0	88.6	60-115	296.6	17.8	30	
Dibromomethane	418	5	17	400	0	104	79-126	356.6	15.9	30	
Dichlorodifluoromethane	425.8	2.7	8.8	400	6	105	20-120	373.4	13.1	30	
Ethylbenzene	1087	8.1	27	400	561.8	131	76-123	948.8	13.6	30	S

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

Client: Gannett Fleming, Inc.
Work Order: 18101327
Project: WRR (55929.005)

QC BATCH REPORT

Batch ID: **R247841b**	Instrument ID **VMS7**			Method: **SW8260C**							
Hexachlorobutadiene	390	4.8	16	400	0	97.5	70-155	317.6	20.5	30	
Isopropylbenzene	421.6	6.3	21	400	0	105	80-127	350.2	18.5	30	
m,p-Xylene	1958	20	65	800	979.2	122	75-130	1684	15.1	30	
Methyl tert-butyl ether	514.6	2.3	8.0	400	0	129	80-130	429.6	18	30	
Methylene chloride	459.6	11	37	400	0	115	75-140	376.6	19.9	30	
Naphthalene	358	3.5	12	400	0	89.5	55-160	312.2	13.7	30	
n-Butylbenzene	403.4	4.4	15	400	0	101	75-145	343	16.2	30	
n-Propylbenzene	416.4	4.9	16	400	0	104	83-135	346	18.5	30	
o-Xylene	906	7.1	24	400	399	127	80-125	793.2	13.3	30	S
p-Isopropyltoluene	412.8	2.9	9.6	400	0	103	61-164	351.2	16.1	30	
sec-Butylbenzene	420.2	5.9	20	400	0	105	80-134	355.2	16.8	30	
Styrene	442	4.8	16	400	0	110	83-137	372.2	17.1	30	
tert-Butylbenzene	417.6	6.9	23	400	0	104	70-130	351.2	17.3	30	
Tetrachloroethene	473.6	5.5	18	400	0	118	68-166	401.6	16.5	30	
Toluene	432.2	7.3	24	400	30.2	100	76-125	358.6	18.6	30	
trans-1,2-Dichloroethene	493.4	5.6	19	400	0	123	80-140	403.2	20.1	30	
trans-1,3-Dichloropropene	372	16	55	400	0	93	56-132	316	16.3	30	
Trichloroethene	443.4	6	20	400	0	111	84-130	374	17	30	
Trichlorofluoromethane	517.2	4	13	400	0	129	60-140	427.4	19	30	
Vinyl chloride	571.8	4.1	14	400	125.2	112	50-136	486.6	16.1	30	
Xylenes, Total	2864	27	89	1200	1378	124	80-126	2477	14.5	30	
Surr: 1,2-Dichloroethane-d4	*405.4*	0	0	*400*	0	*101*	*75-120*	403	*0.594*	*30*	
Surr: 4-Bromofluorobenzene	*413.8*	0	0	*400*	0	*103*	*80-110*	406.2	*1.85*	*30*	
Surr: Dibromofluoromethane	*414*	0	0	*400*	0	*104*	*85-115*	417.8	*0.914*	*30*	
Surr: Toluene-d8	*379*	0	0	*400*	0	*94.8*	*85-110*	381	*0.526*	*30*	

The following samples were analyzed in this batch:

18101327-02A	18101327-09A	18101327-10A

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

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

Page 1 of 1

QUOTE: ALS Unit Rates

COC ID: 179210

ALS Project Manager: BB

ALS Work Order #: 8101327

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	55929.005	Project Name	WRR - GP GW	A	VOCs
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	GP-91 16-20	10/15/18	12:15	GW	HCl	3	X										
2	GP-92 16-20	↓	13:05	↓	↓	↓	↓										
3	GP-92 22-26	↓	13:15														
4	GP-93 16-20	10/16/18	11:40														
5	GP-93 22-26	"	11:50														
6	GP-94 16-20	10/17/18	9:15	↓	↓	↓	↓										
7	GP-95 12-16	10/18/18	8:00	GW	HCl	3	X										
8	GP-95 18-20	"	8:45	↓	↓	"	↓										
9	Trip Blank	10/15/18		↓	↓	2	↓										
10	MP-1	10/18/18	11:30	"	"	3	X										

Sampler(s) Please Print & Sign: Chelsey Payne

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date: 10/18/18	Time: 12:00	Received by: FEDEX
Relinquished by: FEDEX	Date: 10/19/18	Time: 0900	Received by (Laboratory):
Logged by (Laboratory): KL	Date: 10/19/18	Time: 1300	Checked by (Laboratory): BB

Notes:

Cooler ID	Cooler Temp.
SRL	3.0°C

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: **19-Oct-18 09:00**

Work Order: **18101327** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 19-Oct-18 (Date) Reviewed by: Tom Bramish (eSignature) 19-Oct-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:	10/19/2018 1:57:33 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:

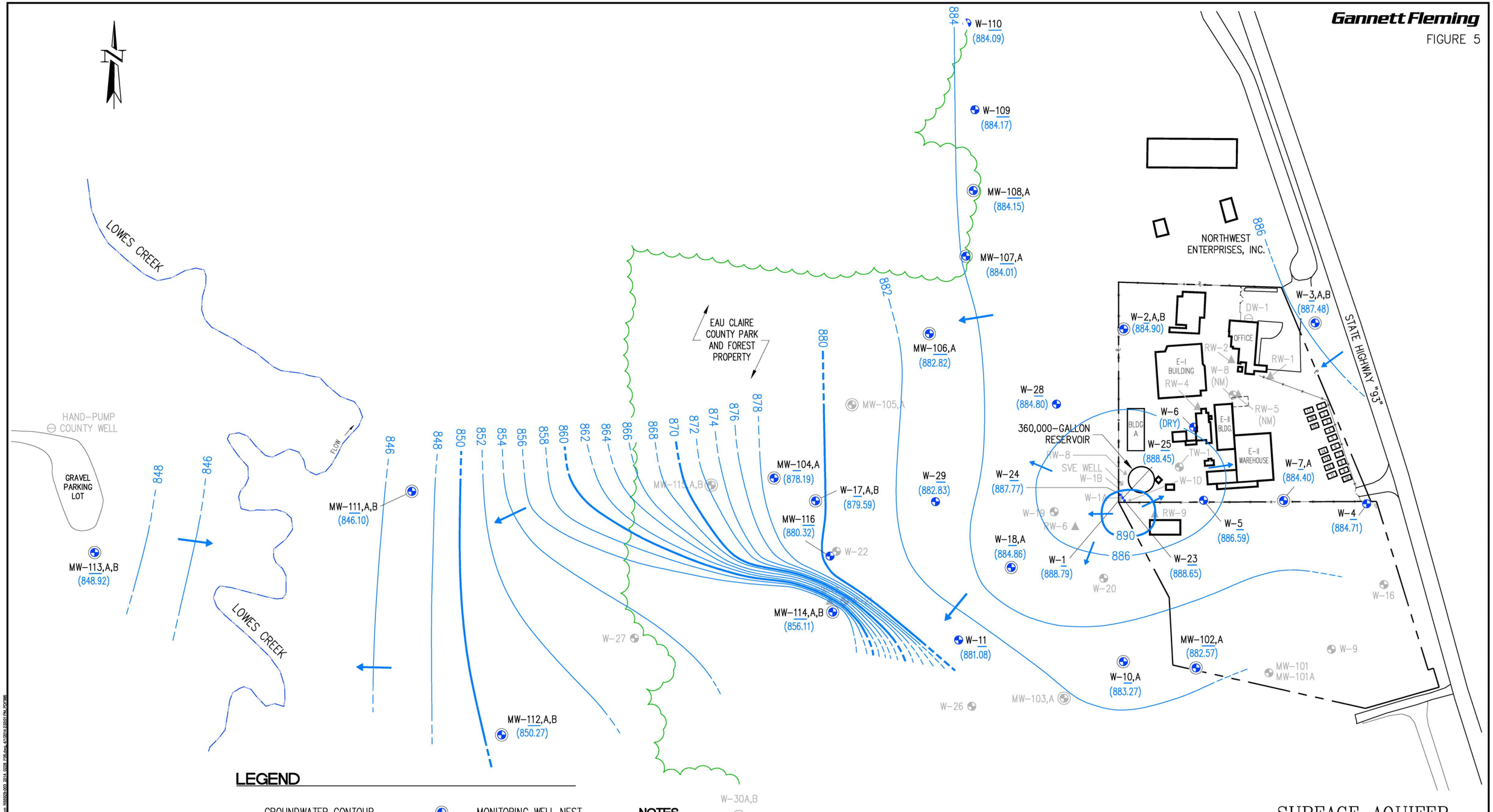
CorrectiveAction:

APPENDIX C

SURFACE AQUIFER GROUNDWATER CONTOUR MAP – OCTOBER 2013

Gannett Fleming

FIGURE 5



LEGEND

- 870 — GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (888.91) GROUNDWATER ELEVATION
- MONITORING WELL
- MONITORING WELL NEST
- RECOVERY WELL
- DRINKING WATER WELL
- FENCE

0 — 250

Approximate Scale In Feet

NOTES

1. GROUNDWATER CONTOURS ARE BASED ON ELEVATIONS MEASURED ON OCTOBER 28, 2013 WITH RECOVERY WELLS RW-6, RW-7 AND THE PRODUCTION WELL OPERATING.
2. 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.
3. SITE FEATURES ARE APPROXIMATE.
4. SHADED WELLS WERE NOT USED TO CREATE THIS MAP.

SURFACE AQUIFER GROUNDWATER CONTOUR MAP (OCTOBER 2013)

WRR ENVIRONMENTAL SERVICES, INC.
EAU CLAIRE, WISCONSIN

022814
awm_R55929-003_2014_0228_F05