



January 13, 2023

Wayne Bankert
Laramie Energy LLC
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

**RE: Investigation Report
Baker Canyon Spill
COGCC Facility ID 479751, Remediation Project Number 17836
Garfield County, Colorado**

Mr. Bankert,

Entrada Consulting Group, Inc. (Entrada) was contracted by Laramie Energy (Laramie) to conduct a subsurface investigation including the installation of monitoring wells and collection of soil and water samples at the Baker Canyon Spill (Site) related to the Colorado Oil and Gas Conservation Commission (COGCC) Remediation Project Number 17836. The Site is located in Section 8, Township 7 South, Range 97 West in Garfield County, Colorado. A general site location map is provided as **Figure 1**.

The following narrative provides Site information and presents the results of soil boring and sampling activities conducted by Entrada on October 13th 2022 and groundwater sampling activities conducted by Entrada on October 27th, 2022.

SOIL INVESTIGATION AND MONITORING WELL INSTALLATION ACTIVITIES

On October 13th 2022, Entrada provided oversight during the drilling and well installation in a single soil boring (MW13) at the Site.

Soil boring MW13 was advanced to provide lateral delineation of petroleum hydrocarbons previously identified at the Site. Entrada contracted and oversaw Colorado Drilling and Sampling to advance the soil boring and install the monitoring well. The boring location is shown on **Figure 1**.

The soil boring was advanced with 4.25-inch outside diameter solid stem auger using a Simco drilling rig. Soil samples were collected at five-foot intervals using split spoon samplers. An Entrada geologist was onsite to describe the lithology of the recovered soil, visually examine soil for evidence of potential petroleum hydrocarbon impact (e.g., petroleum staining and odor) and field-screen using a photo-ionization detector (PID) to evaluate the presence of volatile organic

compounds (VOCs). Total depth was 40 ft-bgs. In general, the lithology observed in the soil borings consisted of stiff gravelly clay. Bedrock was not observed in any of the borings.

The soil boring was completed as a 2-inch PVC monitoring well installed to total depth of the boring. Silica sand was placed from total depth to above the top of well screen and hydrated bentonite chips were placed from the top of sand to ground surface. Please see the attached boring log for additional details regarding well construction. The soil boring lithological log and well construction diagrams are provided in **Attachment 1**.

SOIL SAMPLING AND ANALYSIS

Soil samples were collected from each soil boring from various depth intervals for laboratory analysis that are summarized on **Table 1A**. Previously established relevant background samples are included on **Table 1B**. In total six (6) samples were submitted for laboratory analysis.

The soil samples were collected into sample containers appropriate for the specified analyses, sealed, labeled, and placed into an ice filled cooler for preservation. Soil samples were submitted to Pace Analytical in Mt. Juliet, Tennessee, following chain of custody procedures and analyzed for the following constituents by the indicated methods:

- Total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) by United States Environmental Protection Agency (EPA) Method 8015D;
- TPH as diesel range organics (DRO) and TPH as oil range organics (ORO) by EPA Method 8015M;
- Benzene, toluene, ethylbenzene, total xylenes, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260B;
- Polycyclic aromatic hydrocarbons by EPA Method 8270C-SIM;
- Metals (COGCC Table 915-1 list) by EPA Method 6010B except arsenic and hexavalent chromium, which were analyzed by EPA Method 6020 and EPA Method 7199, respectively;
- Sodium Adsorption Ratio (SAR) by calculation;
- Hot water soluble boron by EPA Method 6010B-NE493 Ch 2;
- pH by EPA Method 9045D; and
- Specific Conductance (EC) by EPA Method 9050A Modified.

SOIL ANALYTICAL RESULTS

The laboratory soil analytical results were compared to the COGCC Table 915-1 Protection of Groundwater Screening Levels (PGWSL). The soil analytical results reported above the COGCC Table 915-1 PGWSL are summarized below.

- Arsenic in all samples was reported above the COGCC Table 915-1 PGWSL of 0.29 milligrams per kilogram (mg/kg) with concentrations ranging from 4.36 mg/kg to 16.3 mg/kg. However, the arsenic concentrations in all samples are below the maximum

concentrations observed in background soil boring MW1 (8.5-10.5 ft-bgs, 16.4 mg/kg) and are therefore considered compliant with COGCC Table 915-1 via footnote 1;

- Barium concentrations in all borings were reported above the COGCC Table 915-1 PGWSL of 82 mg/kg with concentrations ranging from 84.3 mg/kg to 322 mg/kg. Barium was not analyzed in the background (MW1);
- Cadmium was reported below the Reporting Detection Limit (RDL) in all samples. However, the RDL (0.500 mg/kg) is above the COGCC Table 915-1 PGWSL of 0.38 mg/kg in all samples. Samples where the RDL is above the COGCC Table 915-1 PGWSL are applicable to Table 915-1 footnote 9.
- Hexavalent Chromium was not detected above the Reporting Detection Limit (RDL) in all samples. The RDL (1.00 mg/kg) is above the COGCC Table 915-1 PGWSL of 0.00067 mg/kg in all samples. Samples where the RDL is above the COGCC Table 915-1 PGWSL are applicable to Table 915-1 footnote 9.
- Selenium was reported below the RDL in MW13 (20-22 ft-bgs) and MW13 (25-27 ft-bgs). However, the RDL is above the COGCC Table 915-1 PGWSL of 0.26 mg/kg. Samples where the RDL is above the COGCC Table 915-1 PGWSL are applicable to Table 915-1 footnote 9.
- Silver was not detected above the Reporting Detection Limit (RDL) in all samples. The RDL (1.00 mg/kg) is above the COGCC Table 915-1 PGWSL of 0.8 mg/kg in all samples. Samples where the RDL is above the COGCC Table 915-1 PGWSL are applicable to Table 915-1 footnote 9.
- 1-Methylnaphthalene, 2-Methylnaphthalene, and Naphthalene were not detected above the Reporting Detection Limit (RDL) in all samples. The RDLs were above the COGCC Table 915-1 PGWSL in all samples. Samples where the RDL is above the COGCC Table 915-1 PGWSL are applicable to Table 915-1 footnote 9.
- pH was reported above the COGCC Table 915-1 upper limit of 8.3 in MW13 (15-17 ft-bgs) at a value of 8.33. However, the pH value was below the maximum values observed in the background soil boring MW1 (23.5-25.5 ft-bgs, 8.60) and is therefore considered compliant with COGCC Table 915-1 via footnote 1.

All remaining soil results were reported below the applicable COGCC Table 915-1 standards. The soil analytical results are summarized in **Table 1A** and the laboratory analytical report is included in **Attachment 2**.

GROUNDWATER SAMPLING AND ANALYSIS

Groundwater sampling activities occurred for all thirteen (13) wells on October 27, 2022 as part of the Site's routine sampling schedule. Groundwater levels were measured in each well to evaluate hydraulic characteristics at the Site. The wells were gauged on the north side of the well casing to the nearest 0.01-foot using a water level meter. Groundwater levels were subsequently converted to elevations and used to create a potentiometric surface map (See **Figure 2**). The three newest soil borings MW11, MW12 and MW13 have not yet been surveyed and their elevations were not included in the figure.

Three well casing volumes of water were purged at each well before samples were collected. Groundwater samples were collected in sample containers appropriate for the specified analyses, sealed, labeled, and placed into an ice-filled cooler for preservation. Samples were submitted to Pace Analytical in Mt. Juliet, TN and analyzed for the following analyses:

- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by EPA Method 8260B;
- Napthalene, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene by EPA Method 8260B;
- Total dissolved solids (TDS) by EPA Method 2540 C-2011;
- Chloride and Sulfate by EPA Method 9056A.

GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical results were reported for thirteen (13) groundwater samples and one (1) surface water sample. Analytical results are summarized in **Table 2** and are compared to COGCC Table 915-1 Concentration Levels. Laboratory analysis reports and chain-of-custody documentation are included in **Attachment 3**. Groundwater analytical results are summarized below:

- Benzene, Toluene, Ethylbenzene, Xylenes, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were identified in groundwater sampling results.
 - Benzene was above the COGCC Table 915-1 Cleanup Concentration in MW3, MW5 and MW9. Exceedances ranged from 6.22 to 239 µg/L. The Table 915-1 Cleanup Concentration for Benzene is 5 µg/L.
- Chloride, Sulfate, and TDS were identified in groundwater sampling results.
 - Sulfate was above the COGCC Table 915-1 Cleanup Concentration in MW8 at a concentration of 1120 mg/L. The Table 915-1 Cleanup Concentration for Sulfate is 250 mg/L or <1.25X Background (1046.25 mg/L).

CONCLUSIONS / RECOMMENDATIONS

Results from the groundwater sampling event indicates that benzene in MW3, MW5, and MW9 are above COGCC Table 915-1 Cleanup Concentration Levels. Additionally, Sulfate is above COGCC cleanup concentrations in MW8. Results from the soil sampling at MW13 indicate that MW13 is over the COGCC Table 915-1 PGWSL for Barium.

Laramie is currently conducting monthly enhanced fluid recovery (EFR) at this site for remediation. Entrada recommends the continuation of monthly groundwater monitoring and EFR until such time that the COGCC approves quarterly groundwater monitoring and EFR. Entrada also recommends that additional background soil samples be taken to better characterize the native soil chemistry in regard to Barium.

We appreciate the opportunity to assist Laramie Energy. Please contact me at (720) 253-2940 if you have any questions.

Sincerely,
ENTRADA CONSULTING GROUP, INC

A handwritten signature in black ink, appearing to read "Reed Johnson", with a stylized, flowing script.

Reed Johnson, PG
Senior Project Geologist

Attachments:

Figure 1: Site Map

Figure 2: Potentiometric Map

Table 1A: Soil Analytical Results

Table 1B: Background Analytical Results

Table 2: Groundwater Analytical Results

Attachment 1: Lithological Logs and Well Construction Diagrams

Attachment 2: Soil Laboratory Analytical Reports

Attachment 3: Groundwater Laboratory Analytical Reports

FIGURES



LEGEND

Spill Origin	Water Sample Location
Soil Sample Location	Excavation
Monitoring Well	

0 60 120 Feet

1 inch = 60 Feet

Project No: 021-054	Baker Canyon Site Map Laramie Energy Section 8, T7S R97W. 6th P.M. Garfield County, Colorado	 330 Grand Avenue, Unit C Grand Junction, CO 81501 970-549-1015	Figure
Map By: NDB			1
Date: 1/11/2023			



LEGEND	
Spill Origin	Excavation
Soil Sample Location	Flow Direction
Monitoring Well	Potentiometric Surface Contour (CI = 0.2 ft)
Water Sample Location	

1 inch = 60 Feet

Project No: 021-054	Baker Canyon Potentiometric Map - 10/27/2022 Laramie Energy Section 8, T7S R97W. 6th P.M. Garfield County, Colorado	 330 Grand Avenue, Unit C Grand Junction, CO 81501 970-549-1015	Figure
Map By: NDB			2
Date: 1/11/2023			

TABLES

Table 1A
Baker Canyon Spill
MW13 Soil Analytical Results

LABORATORY DATA SUMMARY									
Sample ID	Baker MW 13 (5-7')	Baker MW 13 (10-12')	Baker MW 13 (15-17')	Baker MW 13 (20-22')	Baker MW 13 (25-27')	Baker MW 13 (28-30')	COGCC TABLE 915-1 CONCENTRATION LEVELS		
Sample Depth	5-7'	10-12'	15-17'	20-22'	25-27'	28-30'			
Longitude	-108.243469	-108.243469	-108.243469	-108.243469	-108.243469	-108.243469			
Latitude	39.464746	39.464746	39.464746	39.464746	39.464746	39.464746			
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab			
Sample Description	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring	Soil Boring			
Sample Date	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022			
Analytical Parameters							Residential Soil Screening Level	Protection of Groundwater Screening Level	UNITS
TPH									
TPH Gasoline Range Organics	0.357	0.523	0.324	0.212	0.324	0.337	500	500	mg/kg
TPH Diesel Range Organics	18.3	2.41 J	12.2	40.4	7.88	7.71			
TPH Oil Range Organics	57.7	9.63	59.5	110	32.0	24.7			
TOTAL TPH	76.357	12.563	72.024	150.612	40.204	32.747			
BTEX									
Benzene	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	1.2	0.0026	mg/kg
Toluene	0.00210 J	0.00130 J	0.00253 J	0.00295 J	0.00148 J	<0.00100	490	0.69	mg/kg
Ethylbenzene	<0.0025	0.000925 J	0.000975 J	<0.00250	0.000891 J	<0.00250	5.8	0.78	mg/kg
Total Xylenes	0.00218 J	0.00125 J	0.00883	0.00131 J	0.00144 J	0.00116 J	58	9.9	mg/kg
TMB									
1,2,4-Trimethylbenzene	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	27	0.0087	mg/kg
Metals									
Arsenic	9.31	4.36	12.0	7.75	16.3	7.58	0.68	0.29	mg/kg
Barium	219	141	248	197	322	84.3	15,000	82	mg/kg
Cadmium	0.487 J	0.437 J	0.425 J	0.446 J	0.349 J	0.437 J	71	0.38	mg/kg
Chromium (Hexavalent)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0.3	0.00067	mg/kg
Copper	15.9	15.6	17.5	18.5	18.2	18.5	3,100	46	mg/kg
Lead	9.12	10.10	10.8	9.47	8.68	11.6	400	14	mg/kg
Nickel	16.2	15.8	17.7	17.3	18.5	16.1	1,500	26	mg/kg
Selenium	<2.00	<2.00	<2.00	1.35 J	1.01 J	<2.00	390	0.26	mg/kg
Silver	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	390	0.8	mg/kg
Zinc	50.8	53.9	52.0	54.2	50.5	59.7	23,000	370	mg/kg
SAR Metals Analysis									
Sodium Adsorption Ratio	2.72	5.55	1.64	2.63	1.35	5.30	<6	<6	ratio
Polynuclear Aromatic Hydrocarbons									
Acenaphthene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	360	0.55	mg/kg
Anthracene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	1,800	5.8	mg/kg
Benzo(a)anthracene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	11	2.9	mg/kg
Chrysene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.11	0.096	mg/kg
Fluoranthene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	240	8.9	mg/kg
Fluorene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	1.1	0.98	mg/kg
1-Methylnaphthalene	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	18	0.006	mg/kg
2-Methylnapthalene	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	24	0.019	mg/kg
Napthalene	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	2	0.0038	mg/kg
Pyrene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	180	1.3	mg/kg
General Chemistry									
Boron	0.379	0.652	0.284	0.352	0.272	0.587	2	2	mg/L
Specific Conductivity	0.975	0.865	0.317	0.628	0.348	0.932	<4	<4	mmhos/cm
pH	8.02	8.18	8.33	8.25	8.25	8.29	6-8.3	6-8.3	su

mg/kg - milligrams per kilogram
mg/L - milligrams per liter
J - indicates an estimated value
J4 - The associated batch QC was outside the established quality control range for accuracy
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
mmhos/cm - millimhos per centimeter
mv - millivolts
su - standard units
NA - not applicable
NT - parameter was not tested
ND - not detected above method detection limit
T8 - Samples received past/too close to holding time expiration
V - The sample volume is too high to evaluate accurate spike recoveries

Over COGCC Table 915-1 concentration levels but under BACKGROUND level.
Over COGCC Table 915-1 concentration levels and not within BACKGROUND level.
Over COGCC Table 915-1 concentration levels

Table 1B
Baker Canyon Spill
MW1 (Background) Soil Analytical Results

LABORATORY DATA SUMMARY																
Sample ID	SB1-BKGDND-1 (MW1)	SB1-BKGDND-1 (MW1)	SB1-BKGDND-1 (MW1)	SB1-BKGDND-1 (MW1)	SB1-BKGDND-2 (MW1)	SB1-BKGDND-2 (MW1)	SB1-BKGDND-2 (MW1)	SB1-BKGDND-2 (MW1)	SB1-BKGDND-3 (MW1)	SB1-BKGDND-3 (MW1)	SB1-BKGDND-3 (MW1)	SB1-BKGDND-3 (MW1)	SB1-BKGDND-3 (MW1)	COGCC TABLE 915-1 CONCENTRATION LEVELS		
Sample Depth	8.5-10.5'	8.5-10.5'	8.5-10.5'	8.5-10.5'	23.5-25.5'	23.5-25.5'	23.5-25.5'	23.5-25.5'	48.5-50.5'	48.5-50.5'	48.5-50.5'	48.5-50.5'	48.5-50.5'			
Longitude	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976	39.464976			
Latitude	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553	-108.243553			
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab			
Sample Description	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring	Soil boring			
Sample Date	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021	4/29/2021			
Analytical Parameters														Residential Soil Screening Level	Protection of Groundwater Screening Level	UNIT S
TPH																
TPH Gasoline Range Organics	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
TPH Diesel Range Organics	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	500	500	mg/kg
TPH Oil Range Organics	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
TOTAL TPH	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
BTX																
Benzene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.2	0.0026	mg/kg
Toluene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	490	0.69	mg/kg
Ethylbenzene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	5.8	0.78	mg/kg
Total Xylenes	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	58	9.9	mg/kg
TMB																
1,2,4-Trimethylbenzene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	27	0.0087	mg/kg
Metals																
Arsenic	12.4	12.9	12.5	16.4	6.55	6.25	9.28	6.25	7.72	10.4	13.4	8.62	0.68	0.29		mg/kg
Barium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15,000	82		mg/kg
Cadmium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	71	0.38		mg/kg
Chromium (Hexavalent)	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.3	0.00067		mg/kg
Copper	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	3,100	46		mg/kg
Lead	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	400	14		mg/kg
Nickel	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1,500	26		mg/kg
Selenium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	390	0.26		mg/kg
Silver	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	390	0.8		mg/kg
Zinc	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	23,000	370		mg/kg
SAR Metals Analysis																
Sodium Adsorption Ratio	1.38	NT	NT	NT	1.47	NT	NT	NT	8.31	NT	NT	NT	<6	<6		ratio
Polynuclear Aromatic Hydrocarbons																
Acenaphthene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	360	0.55		mg/kg
Anthracene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1,800	5.8		mg/kg
Benzo(a)anthracene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.1	0.011		mg/kg
Benzo(a)pyrene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.11	0.24		mg/kg
Benzo(b)fluoranthene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.1	0.3		mg/kg
Benzo(k)fluoranthene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	11	2.9		mg/kg
Chrysene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	110	9		mg/kg
Dibenzo(a,h)anthracene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.11	0.096		mg/kg
Fluoranthene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	240	8.9		mg/kg
Fluorene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	240	0.54		mg/kg
Indeno(1,2,3-cd)pyrene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.1	0.98		mg/kg
1-Methylnaphthalene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	18	0.006		mg/kg
2-Methylnaphthalene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	24	0.019		mg/kg
Napthalene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	2	0.0038		mg/kg
Pyrene	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	180	1.3		mg/kg
General Chemistry																
Boron	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	2	2		mg/L
Specific Conductivity	0.401	NT	NT	NT	0.645	NT	NT	NT	0.819	NT	NT	NT	<4	<4		mmhos/cm
pH	8.46	NT	NT	NT	8.60	NT	NT	NT	8.58	NT	NT	NT	6-8.3	6-8.3		su

mg/kg - milligrams per kilogram
mg/L - milligrams per liter
J - indicates an estimated value
mmhos/cm - millimos per centimeter
mv - millivolts
su - standard units
NA - not applicable
NT - parameter was not tested
ND - not detected above method detection limit
TS - Samples received past/bio close to testing time expiration
V - The sample volume is too high to evaluate accurate spike recoveries

Over COGCC Table 915-1 concentration levels but under BACKGROUND level
Over COGCC Table 915-1 concentration levels and not within BACKGROUND level
Over COGCC Table 915-1 concentration levels

Laramie Energy - Baker Canyon Spill
Groundwater Analytical Results

Location/Date	Benzene MCL = 5 ug/L	Toluene MCL = 560 - 1,000 µg/L	Ethylbenzene MCL = 700 µg/L	Xylenes MCL = 1,400-10,000 µg/L	Naphthalene MCL = 140 µg/L	1,2,4 - Trimethylbenzene MCL = 67 µg/L	1,3,5 - Trimethylbenzene MCL = 67 µg/L	Chloride 250 mg/L or <1.25 x background (104.25)	Sulfate 250 mg/L or <1.25 x background mg/L (1,046.25)	Total Dissolved Solids MCL = <1.25 x background mg/L (2,262.5)	Depth to Groundwater (ft)	Temperature (°C)	Dissolved Oxygen Saturation (%)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	Total Dissolved Solids (mg/L)	Salinity (‰)	pH (su)
Organic Compounds								General Chemistry				Field Parameters						
Conn Creek (SW1 - Surface Water)																		
10/27/2022	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<1.0	80.1	354	1090	NA	11.7	34.6	3.70	1.767	1.148	0.90	7.36
MW1 (BG)											Total Depth - 54.63'							
10/27/2022	<1.0	0.404 J	0.227 J	<3.0	<5.0	<1.0	<1.0	58.6	268	916	34.03	11.7	40.8	4.42	1.425	0.926	0.72	7.57
MW2											Total Depth - 42.12'							
10/27/2022	0.177 J	<1.0	0.197 J	0.543 J	<5.0	<1.0	<1.0	73.3	768	1610	25.30	12.9	20.5	2.13	2.234	1.449	1.15	7.16
MW3											Total Depth - 45.40'							
10/27/2022	6.22	<1.0	0.592 J	2.55 J	<5.0	0.356 J	0.330 J	75.1	675	1500	27.53	12.6	20	2.05	2.264	1.471	1.17	7.25
MW4											Total Depth - 43.15'							
10/27/2022	<1.0	<1.0	<1.0	<3.0	<5.0	0.739 J	1.03	105	953	1860	25.65	12	15	1.59	2.79	1.814	1.46	7.44
MW5											Total Depth - 43.35'							
10/27/2022	161	0.779 J	34.1	68.9	<5.0	6.83	8.77	73.8	723	1550	27.02	13.1	18.4	1.9	2.234	1.452	1.15	7.08
MW6											Total Depth - 36.60'							
10/27/2022	<1.0	<1.0	0.200 J	<3.0	<5.0	<1.0	<1.0	113	932	1810	24.48	13.3	21.9	2.25	2.715	1.765	1.42	7.23
MW7											Total Depth - 37.94'							
10/27/2022	0.0947 J	0.515 J	0.419 J	0.269 J	<5.0	<1.0	<1.0	108	994	2000	24.13	11.9	19.3	2.03	2.864	1.863	1.5	7.3
MW8											Total Depth - 33.50'							
10/27/2022	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<1.0	125	1120	2120	23.03	11.4	22.4	2.47	2.821	1.834	1.47	7.25
MW9											Total Depth - 34.17'							
10/27/2022	239	<1.0	20.9	113	<5.0	8.25 J	9.44 J	76.4	653	1500	25.96	13.8	23	2.31	2.187	1.421	1.13	7.08
MW10											Total Depth - 39.05'							
10/27/2022	<1.0	0.502 J	0.381 J	0.254 J	<5.0	<1.0	<1.0	73.0	887	1790	28.06	12.6	30.1	3.08	2.188	1.421	1.13	7.17
MW11											Total Depth - 34.64'							
10/27/2022	0.984 J	0.467 J	0.591 J	0.416 J	<5.0	<1.0	0.197 J	81.3	771	1690	25.96	13.7	25.9	2.58	2.294	1.491	1.19	7.15
MW12											Total Depth - 37.16'							
10/27/2022	0.188 J	<1.0	<1.0	<3.0	<5.0	<1.0	<1.0	82	645	1510	26.33	13.6	32.7	3.30	2.281	1.481	1.18	7.08
MW13											Total Depth - 37.90'							
10/27/2022	<1.0	0.382 J	0.272 J	<3.0	<5.0	<1.0	<1.0	66.9	942	1910	31.97	12.7	23.5	2.39	2.44	1.587	1.27	7.30

Over COGCC Table 915-1 concentration levels

ug/L - micrograms per liter

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

J - indicates an estimated value

J4 - The associated batch QC was outside the established quality control range for accuracy.

mmhos/cm - millimhos per centimeter

mv - millivolts

su - standard units

NA - not applicable

NT - parameter was not tested

ND - not detected above method detection limit

* Background concentrations for TDS, chloride and sulfate in groundwater based on samples below:

Chloride Background from 5/4/2021 (MW1) = 83.4 mg/L (1.25xBG = 104.25 mg/L)

Sulfate Background from 5/4/2021 (MW1) = 837 mg/L (1.25xBG = 1046.25 mg/L)

TDS Background from 5/4/2021 (MW1) = 1810 mg/L (1.25xBG = 2262.5 mg/L)

BORING LOGS



Laramie Energy
1700 Lincoln Street
Denver, CO 80203

Baker Canyon
MW13



Date Started : 10/13/2022
Detector : MiniRae PID
Hole Diameter : 4"
Drilling Method : Solid Stem Auger
Sampling Method : Split Spoon
Drilling Company : CO Drilling and Sampling
Latitude : 39.464746
Longitude : -108.243469
Project Number : 021-054
Logged By : R. Johnson

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Moisture (%)	Fines (%)	Structure	PID (ppm)	Staining	Recovery (in)	Sample	Blow Count	MW13:
0			0-5: Advance to 5'									
5	CL		5-7: Stiff gravelly clay.	VS Moist	80	M	1.3	N	16	5-7	6,7,10,9	
10	CL		10-12: Tan stiff gravelly clay.	Dry	70	M	0.5	N	16	10-12	9,8,14,18	
15	CL		15-17: Stiff gravelly and silty clay. Mottled.	Dry	70	M	0.4	N	17	15-17	10,10,12,17	
20	CL		20-22: Stiff gravelly clay.	Moist	70	M	1.8	N	18	20-22	6,8,9,13	
25	CL		25-27: Stiff very moist clay. Trace gravel.	V Moist	90	M	0.0	N	20	25-27	3,5,6,8	
30			28-30: Stiff gravelly clay. Wet.	Wet	90	M	0.0	N	24	28-30	3,5,8,10	
35	CL		Advance to 40'									
40			TD @ 40'									

Hydrated Bentonite
1" Sch-40 Solid PVC Riser
1" Sch-40 #10 Slotted PVC Screen
10-20 Silica Sand

SOIL ANALYTICAL REPORTS

Entrada Consulting Group

Sample Delivery Group: L1546453

Samples Received: 10/14/2022

Project Number:

Description: Baker Canyon

Report To: Matt Kasten
330 Grand Avenue
Suite C
Grand Junction, CO 81501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

20221013-BAKER-MW (5-7') L1546453-01 Solid

Collected by
R. Johnson

Collected date/time
10/13/22 09:35

Received date/time
10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1948090	1	10/26/22 20:40	10/26/22 20:40	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:11	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945484	1	10/19/22 13:27	10/20/22 14:30	AAS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944008	1	10/17/22 14:00	10/22/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 11:52	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:09	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 10:34	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946889	1	10/14/22 18:45	10/23/22 19:07	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/21/22 23:33	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 12:00	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 03:18	AGW	Mt. Juliet, TN



20221013-BAKER-MW (10-12') L1546453-02 Solid

Collected by
R. Johnson

Collected date/time
10/13/22 09:45

Received date/time
10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1948090	1	10/26/22 20:43	10/26/22 20:43	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:22	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945581	1	10/21/22 08:00	10/21/22 10:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944008	1	10/17/22 14:00	10/22/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 11:55	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 10:38	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946889	1	10/14/22 18:45	10/23/22 19:29	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/21/22 23:52	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 09:36	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 01:31	AGW	Mt. Juliet, TN

20221013-BAKER-MW (15-17') L1546453-03 Solid

Collected by
R. Johnson

Collected date/time
10/13/22 10:00

Received date/time
10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1948090	1	10/26/22 20:45	10/26/22 20:45	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:27	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945581	1	10/21/22 08:00	10/21/22 10:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944008	1	10/17/22 14:00	10/22/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 11:58	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 10:41	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946889	1	10/14/22 18:45	10/23/22 19:52	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/22/22 00:11	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 10:15	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 02:07	AGW	Mt. Juliet, TN

20221013-BAKER-MW (20-22') L1546453-04 Solid

Collected by
R. Johnson

Collected date/time
10/13/22 10:15

Received date/time
10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1949698	1	10/30/22 17:00	10/30/22 17:00	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945581	1	10/21/22 08:00	10/21/22 10:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944008	1	10/17/22 14:00	10/22/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 12:07	CCE	Mt. Juliet, TN

SAMPLE SUMMARY

20221013-BAKER-MW (20-22') L1546453-04 Solid

Collected by R. Johnson
Collected date/time 10/13/22 10:15
Received date/time 10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 11:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946889	1	10/14/22 18:45	10/23/22 20:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/22/22 01:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 11:34	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 03:36	AGW	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

20221013-BAKER-MW (25-27') L1546453-05 Solid

Collected by R. Johnson
Collected date/time 10/13/22 10:30
Received date/time 10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1949698	1	10/30/22 17:03	10/30/22 17:03	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:37	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945581	1	10/21/22 08:00	10/21/22 10:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944008	1	10/17/22 14:00	10/22/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 12:10	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 11:04	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946891	1	10/14/22 18:45	10/22/22 10:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/22/22 01:29	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 09:49	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 02:43	AGW	Mt. Juliet, TN

⁶Qc

⁷Gl

⁸Al

⁹Sc

20221013-BAKER-MW (28-30') L1546453-06 Solid

Collected by R. Johnson
Collected date/time 10/13/22 11:00
Received date/time 10/14/22 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1949698	1	10/30/22 17:05	10/30/22 17:05	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1944318	1	10/18/22 12:20	10/23/22 22:43	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1945581	1	10/21/22 08:00	10/21/22 10:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1944171	1	10/17/22 14:25	10/22/22 08:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950702	1	11/02/22 17:36	11/03/22 12:13	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1945146	1	10/19/22 09:25	10/28/22 13:23	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950700	5	11/02/22 17:17	11/03/22 11:07	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946891	1	10/14/22 18:45	10/22/22 11:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1947172	1	10/14/22 18:45	10/22/22 01:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1945303	1	10/20/22 17:01	10/21/22 10:02	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1944844	1	10/20/22 13:21	10/21/22 02:25	AGW	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.72		1	10/26/2022 20:40	WG1948090

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:11	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.02	T8	1	10/20/2022 14:30	WG1945484

Sample Narrative:

L1546453-01 WG1945484: 8.02 at 19.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	975		10.0	1	10/22/2022 09:00	WG1944008

Sample Narrative:

L1546453-01 WG1944008: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	219		0.0852	0.500	1	11/03/2022 11:52	WG1950702
Cadmium	0.487	J	0.0471	0.500	1	11/03/2022 11:52	WG1950702
Copper	15.9		0.400	2.00	1	11/03/2022 11:52	WG1950702
Lead	9.12		0.208	0.500	1	11/03/2022 11:52	WG1950702
Nickel	16.2		0.132	2.00	1	11/03/2022 11:52	WG1950702
Selenium	U		0.764	2.00	1	11/03/2022 11:52	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 11:52	WG1950702
Zinc	50.8		0.832	5.00	1	11/03/2022 11:52	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.379		0.0167	0.200	1	10/28/2022 13:09	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	9.31		0.100	1.00	5	11/03/2022 10:34	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.357		0.0217	0.100	1	10/23/2022 19:07	WG1946889
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.8			77.0-120		10/23/2022 19:07	WG1946889

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/21/2022 23:33	WG1947172
Toluene	0.00210	U	0.00130	0.00500	1	10/21/2022 23:33	WG1947172
Ethylbenzene	U		0.000737	0.00250	1	10/21/2022 23:33	WG1947172
Xylenes, Total	0.00218	U	0.000880	0.00650	1	10/21/2022 23:33	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/21/2022 23:33	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/21/2022 23:33	WG1947172
(S) Toluene-d8	102			75.0-131		10/21/2022 23:33	WG1947172
(S) 4-Bromofluorobenzene	88.9			67.0-138		10/21/2022 23:33	WG1947172
(S) 1,2-Dichloroethane-d4	90.6			70.0-130		10/21/2022 23:33	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	18.3		1.61	4.00	1	10/21/2022 12:00	WG1945303
C28-C36 Motor Oil Range	57.7		0.274	4.00	1	10/21/2022 12:00	WG1945303
(S) o-Terphenyl	92.6			18.0-148		10/21/2022 12:00	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 03:18	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 03:18	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 03:18	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 03:18	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 03:18	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 03:18	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 03:18	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 03:18	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 03:18	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 03:18	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 03:18	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 03:18	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 03:18	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 03:18	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 03:18	WG1944844
(S) p-Terphenyl-d14	53.3			23.0-120		10/21/2022 03:18	WG1944844
(S) Nitrobenzene-d5	62.8			14.0-149		10/21/2022 03:18	WG1944844
(S) 2-Fluorobiphenyl	56.5			34.0-125		10/21/2022 03:18	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.55		1	10/26/2022 20:43	WG1948090

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:22	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.18	T8	1	10/21/2022 10:00	WG1945581

Sample Narrative:

L1546453-02 WG1945581: 8.18 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	865		10.0	1	10/22/2022 09:00	WG1944008

Sample Narrative:

L1546453-02 WG1944008: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	141		0.0852	0.500	1	11/03/2022 11:55	WG1950702
Cadmium	0.437	J	0.0471	0.500	1	11/03/2022 11:55	WG1950702
Copper	15.6		0.400	2.00	1	11/03/2022 11:55	WG1950702
Lead	10.1		0.208	0.500	1	11/03/2022 11:55	WG1950702
Nickel	15.8		0.132	2.00	1	11/03/2022 11:55	WG1950702
Selenium	U		0.764	2.00	1	11/03/2022 11:55	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 11:55	WG1950702
Zinc	53.9		0.832	5.00	1	11/03/2022 11:55	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.652		0.0167	0.200	1	10/28/2022 13:12	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.36		0.100	1.00	5	11/03/2022 10:38	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.523		0.0217	0.100	1	10/23/2022 19:29	WG1946889
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	89.6			77.0-120		10/23/2022 19:29	WG1946889

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/21/2022 23:52	WG1947172
Toluene	0.00130	U	0.00130	0.00500	1	10/21/2022 23:52	WG1947172
Ethylbenzene	0.000925	U	0.000737	0.00250	1	10/21/2022 23:52	WG1947172
Xylenes, Total	0.00125	U	0.000880	0.00650	1	10/21/2022 23:52	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/21/2022 23:52	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/21/2022 23:52	WG1947172
(S) Toluene-d8	105			75.0-131		10/21/2022 23:52	WG1947172
(S) 4-Bromofluorobenzene	93.0			67.0-138		10/21/2022 23:52	WG1947172
(S) 1,2-Dichloroethane-d4	93.2			70.0-130		10/21/2022 23:52	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.41	U	1.61	4.00	1	10/21/2022 09:36	WG1945303
C28-C36 Motor Oil Range	9.63		0.274	4.00	1	10/21/2022 09:36	WG1945303
(S) o-Terphenyl	67.7			18.0-148		10/21/2022 09:36	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 01:31	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 01:31	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 01:31	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 01:31	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 01:31	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 01:31	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 01:31	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 01:31	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 01:31	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 01:31	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 01:31	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 01:31	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 01:31	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 01:31	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 01:31	WG1944844
(S) p-Terphenyl-d14	55.5			23.0-120		10/21/2022 01:31	WG1944844
(S) Nitrobenzene-d5	65.6			14.0-149		10/21/2022 01:31	WG1944844
(S) 2-Fluorobiphenyl	55.3			34.0-125		10/21/2022 01:31	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.64		1	10/26/2022 20:45	WG1948090

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:27	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.33	T8	1	10/21/2022 10:00	WG1945581

Sample Narrative:

L1546453-03 WG1945581: 8.33 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	317		10.0	1	10/22/2022 09:00	WG1944008

Sample Narrative:

L1546453-03 WG1944008: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	248		0.0852	0.500	1	11/03/2022 11:58	WG1950702
Cadmium	0.425	J	0.0471	0.500	1	11/03/2022 11:58	WG1950702
Copper	17.5		0.400	2.00	1	11/03/2022 11:58	WG1950702
Lead	10.8		0.208	0.500	1	11/03/2022 11:58	WG1950702
Nickel	17.7		0.132	2.00	1	11/03/2022 11:58	WG1950702
Selenium	U		0.764	2.00	1	11/03/2022 11:58	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 11:58	WG1950702
Zinc	52.0		0.832	5.00	1	11/03/2022 11:58	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.284		0.0167	0.200	1	10/28/2022 13:14	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	12.0		0.100	1.00	5	11/03/2022 10:41	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.324		0.0217	0.100	1	10/23/2022 19:52	WG1946889
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.2			77.0-120		10/23/2022 19:52	WG1946889

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/22/2022 00:11	WG1947172
Toluene	0.00253	U	0.00130	0.00500	1	10/22/2022 00:11	WG1947172
Ethylbenzene	0.000975	U	0.000737	0.00250	1	10/22/2022 00:11	WG1947172
Xylenes, Total	0.00883		0.000880	0.00650	1	10/22/2022 00:11	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/22/2022 00:11	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/22/2022 00:11	WG1947172
(S) Toluene-d8	107			75.0-131		10/22/2022 00:11	WG1947172
(S) 4-Bromofluorobenzene	90.5			67.0-138		10/22/2022 00:11	WG1947172
(S) 1,2-Dichloroethane-d4	88.0			70.0-130		10/22/2022 00:11	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	12.2		1.61	4.00	1	10/21/2022 10:15	WG1945303
C28-C36 Motor Oil Range	59.5		0.274	4.00	1	10/21/2022 10:15	WG1945303
(S) o-Terphenyl	92.2			18.0-148		10/21/2022 10:15	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 02:07	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 02:07	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 02:07	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 02:07	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 02:07	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 02:07	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 02:07	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 02:07	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 02:07	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 02:07	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 02:07	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 02:07	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 02:07	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 02:07	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 02:07	WG1944844
(S) p-Terphenyl-d14	73.4			23.0-120		10/21/2022 02:07	WG1944844
(S) Nitrobenzene-d5	76.4			14.0-149		10/21/2022 02:07	WG1944844
(S) 2-Fluorobiphenyl	74.5			34.0-125		10/21/2022 02:07	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.63		1	10/30/2022 17:00	WG1949698

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:32	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.25	T8	1	10/21/2022 10:00	WG1945581

Sample Narrative:

L1546453-04 WG1945581: 8.25 at 19.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	628		10.0	1	10/22/2022 09:00	WG1944008

Sample Narrative:

L1546453-04 WG1944008: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	197		0.0852	0.500	1	11/03/2022 12:07	WG1950702
Cadmium	0.446	J	0.0471	0.500	1	11/03/2022 12:07	WG1950702
Copper	18.5		0.400	2.00	1	11/03/2022 12:07	WG1950702
Lead	9.47		0.208	0.500	1	11/03/2022 12:07	WG1950702
Nickel	17.3		0.132	2.00	1	11/03/2022 12:07	WG1950702
Selenium	1.35	J	0.764	2.00	1	11/03/2022 12:07	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 12:07	WG1950702
Zinc	54.2		0.832	5.00	1	11/03/2022 12:07	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

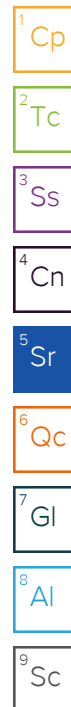
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.352		0.0167	0.200	1	10/28/2022 13:17	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.75		0.100	1.00	5	11/03/2022 11:01	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.212		0.0217	0.100	1	10/23/2022 20:15	WG1946889
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.8			77.0-120		10/23/2022 20:15	WG1946889



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/22/2022 01:09	WG1947172
Toluene	0.00295	U	0.00130	0.00500	1	10/22/2022 01:09	WG1947172
Ethylbenzene	U		0.000737	0.00250	1	10/22/2022 01:09	WG1947172
Xylenes, Total	0.00131	U	0.000880	0.00650	1	10/22/2022 01:09	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/22/2022 01:09	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/22/2022 01:09	WG1947172
(S) Toluene-d8	103			75.0-131		10/22/2022 01:09	WG1947172
(S) 4-Bromofluorobenzene	92.9			67.0-138		10/22/2022 01:09	WG1947172
(S) 1,2-Dichloroethane-d4	97.9			70.0-130		10/22/2022 01:09	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	40.4		1.61	4.00	1	10/21/2022 11:34	WG1945303
C28-C36 Motor Oil Range	110		0.274	4.00	1	10/21/2022 11:34	WG1945303
(S) o-Terphenyl	113			18.0-148		10/21/2022 11:34	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 03:36	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 03:36	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 03:36	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 03:36	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 03:36	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 03:36	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 03:36	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 03:36	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 03:36	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 03:36	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 03:36	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 03:36	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 03:36	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 03:36	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 03:36	WG1944844
(S) p-Terphenyl-d14	68.2			23.0-120		10/21/2022 03:36	WG1944844
(S) Nitrobenzene-d5	76.9			14.0-149		10/21/2022 03:36	WG1944844
(S) 2-Fluorobiphenyl	70.3			34.0-125		10/21/2022 03:36	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.35		1	10/30/2022 17:03	WG1949698

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:37	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.25	T8	1	10/21/2022 10:00	WG1945581

Sample Narrative:

L1546453-05 WG1945581: 8.25 at 19.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	348		10.0	1	10/22/2022 09:00	WG1944008

Sample Narrative:

L1546453-05 WG1944008: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	322		0.0852	0.500	1	11/03/2022 12:10	WG1950702
Cadmium	0.349	J	0.0471	0.500	1	11/03/2022 12:10	WG1950702
Copper	18.2		0.400	2.00	1	11/03/2022 12:10	WG1950702
Lead	8.68		0.208	0.500	1	11/03/2022 12:10	WG1950702
Nickel	18.5		0.132	2.00	1	11/03/2022 12:10	WG1950702
Selenium	1.01	J	0.764	2.00	1	11/03/2022 12:10	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 12:10	WG1950702
Zinc	50.5		0.832	5.00	1	11/03/2022 12:10	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.272		0.0167	0.200	1	10/28/2022 13:20	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	16.3		0.100	1.00	5	11/03/2022 11:04	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.324		0.0217	0.100	1	10/22/2022 10:58	WG1946891
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.3			77.0-120		10/22/2022 10:58	WG1946891



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/22/2022 01:29	WG1947172
Toluene	0.00148	U	0.00130	0.00500	1	10/22/2022 01:29	WG1947172
Ethylbenzene	0.000891	U	0.000737	0.00250	1	10/22/2022 01:29	WG1947172
Xylenes, Total	0.00144	U	0.000880	0.00650	1	10/22/2022 01:29	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/22/2022 01:29	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/22/2022 01:29	WG1947172
(S) Toluene-d8	103			75.0-131		10/22/2022 01:29	WG1947172
(S) 4-Bromofluorobenzene	91.6			67.0-138		10/22/2022 01:29	WG1947172
(S) 1,2-Dichloroethane-d4	94.3			70.0-130		10/22/2022 01:29	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	7.88		1.61	4.00	1	10/21/2022 09:49	WG1945303
C28-C36 Motor Oil Range	32.0		0.274	4.00	1	10/21/2022 09:49	WG1945303
(S) o-Terphenyl	87.7			18.0-148		10/21/2022 09:49	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 02:43	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 02:43	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 02:43	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 02:43	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 02:43	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 02:43	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 02:43	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 02:43	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 02:43	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 02:43	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 02:43	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 02:43	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 02:43	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 02:43	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 02:43	WG1944844
(S) p-Terphenyl-d14	71.6			23.0-120		10/21/2022 02:43	WG1944844
(S) Nitrobenzene-d5	76.7			14.0-149		10/21/2022 02:43	WG1944844
(S) 2-Fluorobiphenyl	72.5			34.0-125		10/21/2022 02:43	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.30		1	10/30/2022 17:05	WG1949698

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/23/2022 22:43	WG1944318

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.29	T8	1	10/21/2022 10:00	WG1945581

Sample Narrative:

L1546453-06 WG1945581: 8.29 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	932		10.0	1	10/22/2022 08:00	WG1944171

Sample Narrative:

L1546453-06 WG1944171: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	84.3		0.0852	0.500	1	11/03/2022 12:13	WG1950702
Cadmium	0.437	J	0.0471	0.500	1	11/03/2022 12:13	WG1950702
Copper	18.5		0.400	2.00	1	11/03/2022 12:13	WG1950702
Lead	11.6		0.208	0.500	1	11/03/2022 12:13	WG1950702
Nickel	16.1		0.132	2.00	1	11/03/2022 12:13	WG1950702
Selenium	U		0.764	2.00	1	11/03/2022 12:13	WG1950702
Silver	U		0.127	1.00	1	11/03/2022 12:13	WG1950702
Zinc	59.7		0.832	5.00	1	11/03/2022 12:13	WG1950702

Metals (ICP) by Method 6010B-NE493 Ch 2

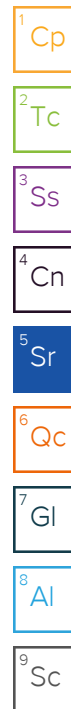
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.587		0.0167	0.200	1	10/28/2022 13:23	WG1945146

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.58		0.100	1.00	5	11/03/2022 11:07	WG1950700

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.337		0.0217	0.100	1	10/22/2022 11:20	WG1946891
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.0			77.0-120		10/22/2022 11:20	WG1946891



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/22/2022 01:48	WG1947172
Toluene	U		0.00130	0.00500	1	10/22/2022 01:48	WG1947172
Ethylbenzene	U		0.000737	0.00250	1	10/22/2022 01:48	WG1947172
Xylenes, Total	0.00116	J	0.000880	0.00650	1	10/22/2022 01:48	WG1947172
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/22/2022 01:48	WG1947172
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/22/2022 01:48	WG1947172
(S) Toluene-d8	105			75.0-131		10/22/2022 01:48	WG1947172
(S) 4-Bromofluorobenzene	89.6			67.0-138		10/22/2022 01:48	WG1947172
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		10/22/2022 01:48	WG1947172

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	7.71		1.61	4.00	1	10/21/2022 10:02	WG1945303
C28-C36 Motor Oil Range	24.7		0.274	4.00	1	10/21/2022 10:02	WG1945303
(S) o-Terphenyl	72.3			18.0-148		10/21/2022 10:02	WG1945303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/21/2022 02:25	WG1944844
Anthracene	U		0.00230	0.00600	1	10/21/2022 02:25	WG1944844
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2022 02:25	WG1944844
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2022 02:25	WG1944844
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2022 02:25	WG1944844
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2022 02:25	WG1944844
Chrysene	U		0.00232	0.00600	1	10/21/2022 02:25	WG1944844
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2022 02:25	WG1944844
Fluoranthene	U		0.00227	0.00600	1	10/21/2022 02:25	WG1944844
Fluorene	U		0.00205	0.00600	1	10/21/2022 02:25	WG1944844
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2022 02:25	WG1944844
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2022 02:25	WG1944844
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2022 02:25	WG1944844
Naphthalene	U		0.00408	0.0200	1	10/21/2022 02:25	WG1944844
Pyrene	U		0.00200	0.00600	1	10/21/2022 02:25	WG1944844
(S) p-Terphenyl-d14	53.3			23.0-120		10/21/2022 02:25	WG1944844
(S) Nitrobenzene-d5	69.8			14.0-149		10/21/2022 02:25	WG1944844
(S) 2-Fluorobiphenyl	50.9			34.0-125		10/21/2022 02:25	WG1944844

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3852190-1 10/23/22 21:59

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	U		0.255	1.00

L1546453-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1546453-01 10/23/22 22:11 • (DUP) R3852190-3 10/23/22 22:17

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

L1546713-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1546713-02 10/23/22 23:45 • (DUP) R3852190-8 10/23/22 23:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3852190-2 10/23/22 22:06

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.67	96.7	80.0-120	

L1546454-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546454-01 10/23/22 22:48 • (MS) R3852190-5 10/23/22 23:09 • (MSD) R3852190-6 10/23/22 23:14

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	12.4	10.2	62.2	50.9	1	75.0-125	J6	J6	19.9	20

Sample Narrative:

OS: Sample is an oxidizer.



L1546454-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1546454-01 10/23/22 22:48 • (MS) R3852190-7 10/23/22 23:19

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	638	U	641	100	50	75.0-125	

Sample Narrative:

OS: Sample is an oxidizer.

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1546429-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1546429-01 10/20/22 14:30 • (DUP) R3851015-2 10/20/22 14:30

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	pH	su		%		%
pH	7.94	7.89	1	0.632		1

Sample Narrative:
OS: 7.94 at 20.2C
DUP: 7.89 at 20.2C

L1546441-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1546441-07 10/20/22 14:30 • (DUP) R3851015-3 10/20/22 14:30

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.41	8.36	1	0.596		1

Sample Narrative:
OS: 8.41 at 19.2C
DUP: 8.36 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R3851015-1 10/20/22 14:30

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.92	99.2	99.0-101	

Sample Narrative:
LCS: 9.92 at 19.3C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1546483-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1546483-07 10/21/22 10:00 • (DUP) R3851312-2 10/21/22 10:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.88	7.83	1	0.637		1

Sample Narrative:
OS: 7.88 at 19.6C
DUP: 7.83 at 19.4C

L1546682-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1546682-05 10/21/22 10:00 • (DUP) R3851312-3 10/21/22 10:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.12	8.11	1	0.123		1

Sample Narrative:
OS: 8.12 at 19.4C
DUP: 8.11 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R3851312-1 10/21/22 10:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.91	99.1	99.0-101	

Sample Narrative:
LCS: 9.91 at 19.5C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3851656-1 10/22/22 09:00

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1546437-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1546437-04 10/22/22 09:00 • (DUP) R3851656-3 10/22/22 09:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1546441-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1546441-08 10/22/22 09:00 • (DUP) R3851656-4 10/22/22 09:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1250	1250	1	0.240		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3851656-2 10/22/22 09:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1150	103	85.0-115	

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3851653-1 10/22/22 08:00

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1546453-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1546453-06 10/22/22 08:00 • (DUP) R3851653-3 10/22/22 08:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	932	932	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1546718-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1546718-01 10/22/22 08:00 • (DUP) R3851653-4 10/22/22 08:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1850	1860	1	0.0539		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3851653-2 10/22/22 08:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1070	95.6	85.0-115	

Sample Narrative:
LCS: at 25C

1
Cp

2
Tc

3
Ss

4
Cn

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Sr

6
Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3856555-1 11/03/22 11:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Copper	U		0.400	2.00
Lead	0.305	J	0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Laboratory Control Sample (LCS)

(LCS) R3856555-2 11/03/22 11:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	92.6	92.6	80.0-120	
Cadmium	100	88.8	88.8	80.0-120	
Copper	100	89.3	89.3	80.0-120	
Lead	100	91.4	91.4	80.0-120	
Nickel	100	93.4	93.4	80.0-120	
Selenium	100	89.8	89.8	80.0-120	
Silver	20.0	16.3	81.6	80.0-120	
Zinc	100	85.9	85.9	80.0-120	

L1546720-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546720-01 11/03/22 11:37 • (MS) R3856555-5 11/03/22 11:46 • (MSD) R3856555-6 11/03/22 11:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	100	265	370	326	105	61.5	1	75.0-125		J6	12.5	20
Cadmium	100	0.189	85.1	77.1	84.9	76.9	1	75.0-125			9.88	20
Copper	100	13.0	97.6	87.5	84.6	74.5	1	75.0-125		J6	10.9	20
Lead	100	9.83	97.5	87.4	87.6	77.6	1	75.0-125			10.9	20
Nickel	100	16.2	107	95.9	90.7	79.7	1	75.0-125			10.9	20
Selenium	100	U	84.5	76.6	84.5	76.6	1	75.0-125			9.75	20
Silver	20.0	U	15.7	14.1	78.3	70.3	1	75.0-125		J6	10.7	20
Zinc	100	42.4	122	110	79.7	67.3	1	75.0-125		J6	10.7	20

Method Blank (MB)

(MB) R3854290-1 10/28/22 13:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3854290-2 10/28/22 13:03 • (LCSD) R3854290-3 10/28/22 13:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.01	0.999	101	99.9	80.0-120			0.872	20

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3856451-1 11/03/22 10:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R3856451-2 11/03/22 10:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	89.2	89.2	80.0-120	

L1546720-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546720-01 11/03/22 10:18 • (MS) R3856451-5 11/03/22 10:28 • (MSD) R3856451-6 11/03/22 10:31

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	4.36	82.2	71.1	77.8	66.8	5	75.0-125		J6	14.4	20

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3853129-2 10/23/22 12:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.7			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3853129-1 10/23/22 11:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	3.98	72.4	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			101	77.0-120	

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3851849-3 10/22/22 02:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0242	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	100			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3851849-2 10/22/22 01:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.37	79.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			101	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3853044-2 10/21/22 21:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	104			75.0-131
(S) 4-Bromofluorobenzene	92.0			67.0-138
(S) 1,2-Dichloroethane-d4	87.0			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3853044-1 10/21/22 20:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.120	96.0	70.0-123	
Toluene	0.125	0.103	82.4	75.0-121	
Ethylbenzene	0.125	0.100	80.0	74.0-126	
Xylenes, Total	0.375	0.273	72.8	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.104	83.2	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.100	80.0	73.0-127	
(S) Toluene-d8			91.6	75.0-131	
(S) 4-Bromofluorobenzene			98.8	67.0-138	
(S) 1,2-Dichloroethane-d4			104	70.0-130	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3851299-1 10/21/22 00:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	85.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3851299-2 10/21/22 00:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	43.0	86.0	50.0-150	
(S) o-Terphenyl			113	18.0-148	

L1546453-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546453-03 10/21/22 10:15 • (MS) R3851299-3 10/21/22 10:28 • (MSD) R3851299-4 10/21/22 10:42

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	12.2	58.5	51.6	92.6	78.8	1	50.0-150			12.5	20
(S) o-Terphenyl					98.2	96.4		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3851336-2 10/20/22 17:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	77.2			23.0-120
(S) Nitrobenzene-d5	79.1			14.0-149
(S) 2-Fluorobiphenyl	77.0			34.0-125

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3851336-1 10/20/22 17:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0550	68.8	50.0-120	
Anthracene	0.0800	0.0533	66.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0595	74.4	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0607	75.9	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0597	74.6	49.0-125	
Benzo(a)pyrene	0.0800	0.0530	66.3	42.0-120	
Chrysene	0.0800	0.0616	77.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0559	69.9	47.0-125	
Fluoranthene	0.0800	0.0615	76.9	49.0-129	
Fluorene	0.0800	0.0578	72.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0614	76.8	46.0-125	
1-Methylnaphthalene	0.0800	0.0581	72.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0580	72.5	50.0-120	
Naphthalene	0.0800	0.0573	71.6	50.0-120	
Pyrene	0.0800	0.0595	74.4	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3851336-1 10/20/22 17:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
(S) p-Terphenyl-d14			76.4	23.0-120	
(S) Nitrobenzene-d5			81.7	14.0-149	
(S) 2-Fluorobiphenyl			74.8	34.0-125	

L1546441-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546441-04 10/20/22 22:33 • (MS) R3851336-3 10/20/22 22:51 • (MSD) R3851336-4 10/20/22 23:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	0.0784	U	0.0494	0.0478	63.0	62.2	1	14.0-127			3.29	27
Anthracene	0.0784	U	0.0447	0.0447	57.0	58.2	1	10.0-145			0.000	30
Benzo(a)anthracene	0.0784	U	0.0487	0.0462	62.1	60.2	1	10.0-139			5.27	30
Benzo(b)fluoranthene	0.0784	U	0.0476	0.0458	60.7	59.6	1	10.0-140			3.85	36
Benzo(k)fluoranthene	0.0784	U	0.0476	0.0474	60.7	61.7	1	10.0-137			0.421	31
Benzo(a)pyrene	0.0784	U	0.0516	0.0501	65.8	65.2	1	10.0-141			2.95	31
Chrysene	0.0784	U	0.0502	0.0488	64.0	63.5	1	10.0-145			2.83	30
Dibenz(a,h)anthracene	0.0784	U	0.0450	0.0440	57.4	57.3	1	10.0-132			2.25	31
Fluoranthene	0.0784	U	0.0519	0.0511	66.2	66.5	1	10.0-153			1.55	33
Fluorene	0.0784	U	0.0506	0.0480	64.5	62.5	1	11.0-130			5.27	29
Indeno(1,2,3-cd)pyrene	0.0784	U	0.0512	0.0490	65.3	63.8	1	10.0-137			4.39	32
1-Methylnaphthalene	0.0784	U	0.0523	0.0510	66.7	66.4	1	10.0-142			2.52	28
2-Methylnaphthalene	0.0784	U	0.0515	0.0502	65.7	65.4	1	10.0-137			2.56	28
Naphthalene	0.0784	U	0.0510	0.0488	65.1	63.5	1	10.0-135			4.41	27
Pyrene	0.0784	U	0.0507	0.0490	64.7	63.8	1	10.0-148			3.41	35
(S) p-Terphenyl-d14					62.5	64.0		23.0-120				
(S) Nitrobenzene-d5					73.8	70.0		14.0-149				
(S) 2-Fluorobiphenyl					68.5	67.9		34.0-125				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

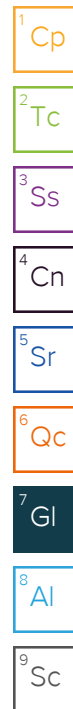
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



GROUNDWATER ANALYTICAL REPORTS

Entrada Consulting Group

Sample Delivery Group: L1551606
Samples Received: 10/28/2022
Project Number: 021-054
Description: Baker Canyon

Report To: Matt Kasten
330 Grand Avenue
Suite C
Grand Junction, CO 81501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

MW1 L1551606-01 GW

Collected by
C. Mace

Collected date/time
10/27/22 12:40

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	1	11/03/22 23:33	11/03/22 23:33	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	5	11/04/22 00:11	11/04/22 00:11	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954138	1	11/04/22 05:46	11/04/22 05:46	MGF	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

MW2 L1551606-02 GW

Collected by
C. Mace

Collected date/time
10/27/22 13:10

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 00:24	11/04/22 00:24	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954138	1	11/04/22 06:07	11/04/22 06:07	MGF	Mt. Juliet, TN

⁵ Sr

⁶ Qc

⁷ Gl

MW3 L1551606-03 GW

Collected by
C. Mace

Collected date/time
10/27/22 13:30

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 00:49	11/04/22 00:49	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954138	1	11/04/22 06:29	11/04/22 06:29	MGF	Mt. Juliet, TN

⁸ Al

⁹ Sc

MW4 L1551606-04 GW

Collected by
C. Mace

Collected date/time
10/27/22 14:00

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	20	11/04/22 01:02	11/04/22 01:02	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954138	1	11/04/22 06:50	11/04/22 06:50	MGF	Mt. Juliet, TN

MW5 L1551606-05 GW

Collected by
C. Mace

Collected date/time
10/27/22 14:20

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 01:40	11/04/22 01:40	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954138	1	11/04/22 07:12	11/04/22 07:12	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1956163	5	11/09/22 09:06	11/09/22 09:06	JAH	Mt. Juliet, TN

MW6 L1551606-06 GW

Collected by
C. Mace

Collected date/time
10/27/22 11:10

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 01:53	11/04/22 01:53	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 04:03	11/04/22 04:03	ACG	Mt. Juliet, TN

SAMPLE SUMMARY

MW7 L1551606-07 GW

Collected by
C. Mace

Collected date/time
10/27/22 12:10

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	20	11/04/22 02:06	11/04/22 02:06	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 04:23	11/04/22 04:23	ACG	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW8 L1551606-08 GW

Collected by
C. Mace

Collected date/time
10/27/22 10:30

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	20	11/04/22 02:18	11/04/22 02:18	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 04:44	11/04/22 04:44	ACG	Mt. Juliet, TN

MW9 L1551606-09 GW

Collected by
C. Mace

Collected date/time
10/27/22 15:00

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 02:31	11/04/22 02:31	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	10	11/04/22 11:21	11/04/22 11:21	ACG	Mt. Juliet, TN

MW10 L1551606-10 GW

Collected by
C. Mace

Collected date/time
10/27/22 13:10

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 02:44	11/04/22 02:44	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 05:04	11/04/22 05:04	ACG	Mt. Juliet, TN

MW11 L1551606-11 GW

Collected by
C. Mace

Collected date/time
10/27/22 15:20

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 02:56	11/04/22 02:56	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 06:37	11/04/22 06:37	ACG	Mt. Juliet, TN

MW12 L1551606-12 GW

Collected by
C. Mace

Collected date/time
10/27/22 15:40

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	5	11/04/22 03:09	11/04/22 03:09	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 06:57	11/04/22 06:57	ACG	Mt. Juliet, TN

SAMPLE SUMMARY

MW13 L1551606-13 GW

Collected by
C. Mace

Collected date/time
10/27/22 16:00

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	10	11/04/22 03:22	11/04/22 03:22	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 07:17	11/04/22 07:17	ACG	Mt. Juliet, TN

¹Cp

²Tc

³Ss

SW L1551606-14 GW

Collected by
C. Mace

Collected date/time
10/27/22 16:10

Received date/time
10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1953833	1	11/03/22 11:42	11/03/22 13:44	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1952692	5	11/04/22 03:35	11/04/22 03:35	GEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1954152	1	11/04/22 07:38	11/04/22 07:38	ACG	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

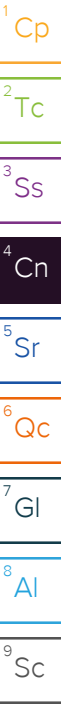


Chris Ward
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1551606-05	MW5	8260B



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	916		20.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	58.6		0.379	1.00	1	11/03/2022 23:33	WG1952692
Sulfate	268	<u>V</u>	2.97	25.0	5	11/04/2022 00:11	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	11/04/2022 05:46	WG1954138
Toluene	0.000404	<u>J</u>	0.000278	0.00100	1	11/04/2022 05:46	WG1954138
Ethylbenzene	0.000227	<u>J</u>	0.000137	0.00100	1	11/04/2022 05:46	WG1954138
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 05:46	WG1954138
Naphthalene	U		0.00100	0.00500	1	11/04/2022 05:46	WG1954138
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 05:46	WG1954138
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 05:46	WG1954138
(S) Toluene-d8	96.4			80.0-120		11/04/2022 05:46	WG1954138
(S) 4-Bromofluorobenzene	106			77.0-126		11/04/2022 05:46	WG1954138
(S) 1,2-Dichloroethane-d4	104			70.0-130		11/04/2022 05:46	WG1954138

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1610		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	73.3		3.79	10.0	10	11/04/2022 00:24	WG1952692
Sulfate	768		5.94	50.0	10	11/04/2022 00:24	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000177	J	0.0000941	0.00100	1	11/04/2022 06:07	WG1954138
Toluene	U		0.000278	0.00100	1	11/04/2022 06:07	WG1954138
Ethylbenzene	0.000197	J	0.000137	0.00100	1	11/04/2022 06:07	WG1954138
Xylenes, Total	0.000543	J	0.000174	0.00300	1	11/04/2022 06:07	WG1954138
Naphthalene	U		0.00100	0.00500	1	11/04/2022 06:07	WG1954138
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 06:07	WG1954138
1,3,5-Trimethylbenzene	0.000237	J	0.000104	0.00100	1	11/04/2022 06:07	WG1954138
(S) Toluene-d8	91.0			80.0-120		11/04/2022 06:07	WG1954138
(S) 4-Bromofluorobenzene	105			77.0-126		11/04/2022 06:07	WG1954138
(S) 1,2-Dichloroethane-d4	104			70.0-130		11/04/2022 06:07	WG1954138

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1500		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	75.1		3.79	10.0	10	11/04/2022 00:49	WG1952692
Sulfate	675		5.94	50.0	10	11/04/2022 00:49	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00622		0.0000941	0.00100	1	11/04/2022 06:29	WG1954138
Toluene	U		0.000278	0.00100	1	11/04/2022 06:29	WG1954138
Ethylbenzene	0.000592	J	0.000137	0.00100	1	11/04/2022 06:29	WG1954138
Xylenes, Total	0.00255	J	0.000174	0.00300	1	11/04/2022 06:29	WG1954138
Naphthalene	U		0.00100	0.00500	1	11/04/2022 06:29	WG1954138
1,2,4-Trimethylbenzene	0.000356	J	0.000322	0.00100	1	11/04/2022 06:29	WG1954138
1,3,5-Trimethylbenzene	0.000330	J	0.000104	0.00100	1	11/04/2022 06:29	WG1954138
(S) Toluene-d8	101			80.0-120		11/04/2022 06:29	WG1954138
(S) 4-Bromofluorobenzene	107			77.0-126		11/04/2022 06:29	WG1954138
(S) 1,2-Dichloroethane-d4	108			70.0-130		11/04/2022 06:29	WG1954138

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1860		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	105		7.58	20.0	20	11/04/2022 01:02	WG1952692
Sulfate	953		11.9	100	20	11/04/2022 01:02	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	11/04/2022 06:50	WG1954138
Toluene	U		0.000278	0.00100	1	11/04/2022 06:50	WG1954138
Ethylbenzene	U		0.000137	0.00100	1	11/04/2022 06:50	WG1954138
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 06:50	WG1954138
Naphthalene	U		0.00100	0.00500	1	11/04/2022 06:50	WG1954138
1,2,4-Trimethylbenzene	0.000739	J	0.000322	0.00100	1	11/04/2022 06:50	WG1954138
1,3,5-Trimethylbenzene	0.00103		0.000104	0.00100	1	11/04/2022 06:50	WG1954138
(S) Toluene-d8	102			80.0-120		11/04/2022 06:50	WG1954138
(S) 4-Bromofluorobenzene	105			77.0-126		11/04/2022 06:50	WG1954138
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/04/2022 06:50	WG1954138

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Dissolved Solids	1550		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	73.8		3.79	10.0	10	11/04/2022 01:40	WG1952692
Sulfate	723		5.94	50.0	10	11/04/2022 01:40	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Benzene	0.161		0.000471	0.00500	5	11/09/2022 09:06	WG1956163
Toluene	0.000779	J	0.000278	0.00100	1	11/04/2022 07:12	WG1954138
Ethylbenzene	0.0341		0.000137	0.00100	1	11/04/2022 07:12	WG1954138
Xylenes, Total	0.0689		0.000174	0.00300	1	11/04/2022 07:12	WG1954138
Naphthalene	U		0.00100	0.00500	1	11/04/2022 07:12	WG1954138
1,2,4-Trimethylbenzene	0.00683		0.000322	0.00100	1	11/04/2022 07:12	WG1954138
1,3,5-Trimethylbenzene	0.00877		0.000104	0.00100	1	11/04/2022 07:12	WG1954138
(S) Toluene-d8	99.9			80.0-120		11/04/2022 07:12	WG1954138
(S) Toluene-d8	99.5			80.0-120		11/09/2022 09:06	WG1956163
(S) 4-Bromofluorobenzene	105			77.0-126		11/04/2022 07:12	WG1954138
(S) 4-Bromofluorobenzene	103			77.0-126		11/09/2022 09:06	WG1956163
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		11/04/2022 07:12	WG1954138
(S) 1,2-Dichloroethane-d4	104			70.0-130		11/09/2022 09:06	WG1956163

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1810		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	113		3.79	10.0	10	11/04/2022 01:53	WG1952692
Sulfate	932		5.94	50.0	10	11/04/2022 01:53	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	11/04/2022 04:03	WG1954152
Toluene	U		0.000278	0.00100	1	11/04/2022 04:03	WG1954152
Ethylbenzene	0.000200	J	0.000137	0.00100	1	11/04/2022 04:03	WG1954152
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 04:03	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 04:03	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 04:03	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 04:03	WG1954152
(S) Toluene-d8	107			80.0-120		11/04/2022 04:03	WG1954152
(S) 4-Bromofluorobenzene	97.4			77.0-126		11/04/2022 04:03	WG1954152
(S) 1,2-Dichloroethane-d4	102			70.0-130		11/04/2022 04:03	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2000		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	108		7.58	20.0	20	11/04/2022 02:06	WG1952692
Sulfate	994		11.9	100	20	11/04/2022 02:06	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0000947	J	0.0000941	0.00100	1	11/04/2022 04:23	WG1954152
Toluene	0.000515	J	0.000278	0.00100	1	11/04/2022 04:23	WG1954152
Ethylbenzene	0.000419	J	0.000137	0.00100	1	11/04/2022 04:23	WG1954152
Xylenes, Total	0.000269	J	0.000174	0.00300	1	11/04/2022 04:23	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 04:23	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 04:23	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 04:23	WG1954152
(S) Toluene-d8	103			80.0-120		11/04/2022 04:23	WG1954152
(S) 4-Bromofluorobenzene	96.6			77.0-126		11/04/2022 04:23	WG1954152
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/04/2022 04:23	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2120		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	125		7.58	20.0	20	11/04/2022 02:18	WG1952692
Sulfate	1120		11.9	100	20	11/04/2022 02:18	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	11/04/2022 04:44	WG1954152
Toluene	U		0.000278	0.00100	1	11/04/2022 04:44	WG1954152
Ethylbenzene	U		0.000137	0.00100	1	11/04/2022 04:44	WG1954152
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 04:44	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 04:44	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 04:44	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 04:44	WG1954152
(S) Toluene-d8	103			80.0-120		11/04/2022 04:44	WG1954152
(S) 4-Bromofluorobenzene	96.9			77.0-126		11/04/2022 04:44	WG1954152
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/04/2022 04:44	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1500		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	76.4		3.79	10.0	10	11/04/2022 02:31	WG1952692
Sulfate	653		5.94	50.0	10	11/04/2022 02:31	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	0.239		0.000941	0.0100	10	11/04/2022 11:21	WG1954152
Toluene	U		0.00278	0.0100	10	11/04/2022 11:21	WG1954152
Ethylbenzene	0.0209		0.00137	0.0100	10	11/04/2022 11:21	WG1954152
Xylenes, Total	0.113		0.00174	0.0300	10	11/04/2022 11:21	WG1954152
Naphthalene	U		0.0100	0.0500	10	11/04/2022 11:21	WG1954152
1,2,4-Trimethylbenzene	0.00825	J	0.00322	0.0100	10	11/04/2022 11:21	WG1954152
1,3,5-Trimethylbenzene	0.00944	J	0.00104	0.0100	10	11/04/2022 11:21	WG1954152
(S) Toluene-d8	99.9			80.0-120		11/04/2022 11:21	WG1954152
(S) 4-Bromofluorobenzene	95.8			77.0-126		11/04/2022 11:21	WG1954152
(S) 1,2-Dichloroethane-d4	109			70.0-130		11/04/2022 11:21	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Dissolved Solids	1790		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	73.0		3.79	10.0	10	11/04/2022 02:44	WG1952692
Sulfate	887		5.94	50.0	10	11/04/2022 02:44	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Benzene	U		0.0000941	0.00100	1	11/04/2022 05:04	WG1954152
Toluene	0.000502	J	0.000278	0.00100	1	11/04/2022 05:04	WG1954152
Ethylbenzene	0.000381	J	0.000137	0.00100	1	11/04/2022 05:04	WG1954152
Xylenes, Total	0.000254	J	0.000174	0.00300	1	11/04/2022 05:04	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 05:04	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 05:04	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 05:04	WG1954152
(S) Toluene-d8	101			80.0-120		11/04/2022 05:04	WG1954152
(S) 4-Bromofluorobenzene	97.6			77.0-126		11/04/2022 05:04	WG1954152
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/04/2022 05:04	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1690		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	81.3		3.79	10.0	10	11/04/2022 02:56	WG1952692
Sulfate	771		5.94	50.0	10	11/04/2022 02:56	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000984	J	0.0000941	0.00100	1	11/04/2022 06:37	WG1954152
Toluene	0.000467	J	0.000278	0.00100	1	11/04/2022 06:37	WG1954152
Ethylbenzene	0.000591	J	0.000137	0.00100	1	11/04/2022 06:37	WG1954152
Xylenes, Total	0.000416	J	0.000174	0.00300	1	11/04/2022 06:37	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 06:37	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 06:37	WG1954152
1,3,5-Trimethylbenzene	0.000197	J	0.000104	0.00100	1	11/04/2022 06:37	WG1954152
(S) Toluene-d8	102			80.0-120		11/04/2022 06:37	WG1954152
(S) 4-Bromofluorobenzene	98.6			77.0-126		11/04/2022 06:37	WG1954152
(S) 1,2-Dichloroethane-d4	105			70.0-130		11/04/2022 06:37	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1510		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	82.0		1.90	5.00	5	11/04/2022 03:09	WG1952692
Sulfate	645		2.97	25.0	5	11/04/2022 03:09	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000188	J	0.0000941	0.00100	1	11/04/2022 06:57	WG1954152
Toluene	U		0.000278	0.00100	1	11/04/2022 06:57	WG1954152
Ethylbenzene	U		0.000137	0.00100	1	11/04/2022 06:57	WG1954152
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 06:57	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 06:57	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 06:57	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 06:57	WG1954152
(S) Toluene-d8	102			80.0-120		11/04/2022 06:57	WG1954152
(S) 4-Bromofluorobenzene	95.3			77.0-126		11/04/2022 06:57	WG1954152
(S) 1,2-Dichloroethane-d4	105			70.0-130		11/04/2022 06:57	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1910		50.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	66.9		3.79	10.0	10	11/04/2022 03:22	WG1952692
Sulfate	942		5.94	50.0	10	11/04/2022 03:22	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	11/04/2022 07:17	WG1954152
Toluene	0.000382	J	0.000278	0.00100	1	11/04/2022 07:17	WG1954152
Ethylbenzene	0.000272	J	0.000137	0.00100	1	11/04/2022 07:17	WG1954152
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 07:17	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 07:17	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 07:17	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 07:17	WG1954152
(S) Toluene-d8	102			80.0-120		11/04/2022 07:17	WG1954152
(S) 4-Bromofluorobenzene	97.0			77.0-126		11/04/2022 07:17	WG1954152
(S) 1,2-Dichloroethane-d4	107			70.0-130		11/04/2022 07:17	WG1954152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1090		25.0	1	11/03/2022 13:44	WG1953833

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	80.1		1.90	5.00	5	11/04/2022 03:35	WG1952692
Sulfate	354		2.97	25.0	5	11/04/2022 03:35	WG1952692

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	1	11/04/2022 07:38	WG1954152
Toluene	U		0.000278	0.00100	1	11/04/2022 07:38	WG1954152
Ethylbenzene	U		0.000137	0.00100	1	11/04/2022 07:38	WG1954152
Xylenes, Total	U		0.000174	0.00300	1	11/04/2022 07:38	WG1954152
Naphthalene	U		0.00100	0.00500	1	11/04/2022 07:38	WG1954152
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	11/04/2022 07:38	WG1954152
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	11/04/2022 07:38	WG1954152
(S) Toluene-d8	102			80.0-120		11/04/2022 07:38	WG1954152
(S) 4-Bromofluorobenzene	97.6			77.0-126		11/04/2022 07:38	WG1954152
(S) 1,2-Dichloroethane-d4	111			70.0-130		11/04/2022 07:38	WG1954152

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3857423-1 11/03/22 13:44

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1551634-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1551634-01 11/03/22 13:44 • (DUP) R3857423-3 11/03/22 13:44

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	622	654	1	5.02	J3	5

L1551710-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1551710-01 11/03/22 13:44 • (DUP) R3857423-4 11/03/22 13:44

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	326	333	1	2.12		5

Laboratory Control Sample (LCS)

(LCS) R3857423-2 11/03/22 13:44

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8570	97.4	77.3-123	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3857028-1 11/03/22 23:07

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1551606-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1551606-02 11/04/22 00:24 • (DUP) R3857028-5 11/04/22 00:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	73.3	74.1	10	1.07		15
Sulfate	768	787	10	2.43		15

L1551727-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1551727-02 11/04/22 05:04 • (DUP) R3857028-6 11/04/22 05:16

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	3.74	3.70	1	1.10		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3857028-2 11/03/22 23:20

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	39.4	98.6	80.0-120	
Sulfate	40.0	39.7	99.3	80.0-120	

L1551606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551606-01 11/03/22 23:33 • (MS) R3857028-3 11/03/22 23:45 • (MSD) R3857028-4 11/03/22 23:58

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	58.6	107	110	96.6	102	1	80.0-120			2.65	15
Sulfate	50.0	280	312	323	63.2	85.1	1	80.0-120	E V	E	3.44	15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1551727-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1551727-02 11/04/22 05:04 • (MS) R3857028-7 11/04/22 05:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	50.0	3.74	54.6	102	1	80.0-120	
Sulfate	50.0	U	49.3	98.5	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3858269-3 11/04/22 01:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
Naphthalene	U		0.00100	0.00500
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
(S) Toluene-d8	100			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3858269-1 11/04/22 00:05 • (LCSD) R3858269-2 11/04/22 00:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00519	0.00561	104	112	70.0-123			7.78	20
Toluene	0.00500	0.00498	0.00543	99.6	109	79.0-120			8.65	20
Ethylbenzene	0.00500	0.00482	0.00521	96.4	104	79.0-123			7.78	20
Xylenes, Total	0.0150	0.0146	0.0157	97.3	105	79.0-123			7.26	20
Naphthalene	0.00500	0.00391	0.00416	78.2	83.2	54.0-135			6.20	20
1,2,4-Trimethylbenzene	0.00500	0.00527	0.00556	105	111	76.0-121			5.36	20
1,3,5-Trimethylbenzene	0.00500	0.00520	0.00560	104	112	76.0-122			7.41	20
(S) Toluene-d8				101	102	80.0-120				
(S) 4-Bromofluorobenzene				106	102	77.0-126				
(S) 1,2-Dichloroethane-d4				110	108	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3858359-3 11/04/22 03:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
Naphthalene	U		0.00100	0.00500
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	94.3			77.0-126
(S) 1,2-Dichloroethane-d4	101			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3858359-1 11/04/22 02:21 • (LCSD) R3858359-2 11/04/22 02:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00527	0.00545	105	109	70.0-123			3.36	20
Toluene	0.00500	0.00507	0.00532	101	106	79.0-120			4.81	20
Ethylbenzene	0.00500	0.00514	0.00536	103	107	79.0-123			4.19	20
Xylenes, Total	0.0150	0.0151	0.0155	101	103	79.0-123			2.61	20
Naphthalene	0.00500	0.00395	0.00422	79.0	84.4	54.0-135			6.61	20
1,2,4-Trimethylbenzene	0.00500	0.00474	0.00490	94.8	98.0	76.0-121			3.32	20
1,3,5-Trimethylbenzene	0.00500	0.00496	0.00518	99.2	104	76.0-122			4.34	20
(S) Toluene-d8				102	103	80.0-120				
(S) 4-Bromofluorobenzene				96.2	95.2	77.0-126				
(S) 1,2-Dichloroethane-d4				101	101	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3858893-3 11/08/22 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	97.2			77.0-126
(S) 1,2-Dichloroethane-d4	109			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3858893-1 11/08/22 22:11 • (LCSD) R3858893-2 11/08/22 22:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00538	0.00545	108	109	70.0-123			1.29	20
(S) Toluene-d8				101	99.9	80.0-120				
(S) 4-Bromofluorobenzene				104	106	77.0-126				
(S) 1,2-Dichloroethane-d4				101	103	70.0-130				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

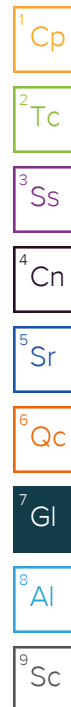
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Entrada Consulting Group 330 Grand Avenue, Unit C Grand Junction, CO 81503				Billing Information: Same as left.				Analysis / Container / Preservative										Chain of Custody Page <u>1</u> of <u>1</u> L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Report to: Matt Kasten				Email To: mkasten@entradainc.com				<div style="display: flex; justify-content: space-around; font-weight: bold;"> BTEX Napthalene Table 915 1, 2, 4 TMB, 1, 3, 5 TMB TDS Chloride Sulfate </div>											
Project Description: Baker Canyon				City/State Collected: CO															
Phone: (970) 901-9007 Fax:		Client Project # 021-054		Lab Project #															
Collected by (print): C. Mace		Site/Facility ID #		P.O. #															
Collected by (signature): Immediately Packed on Ice N ___ Y <input checked="" type="checkbox"/>		Rush? (Lab MUST Be Notified) ___ Same Day200% ___ Next Day100% ___ Two Day50% ___ Three Day25%		Date Results Needed Email? ___ No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No ___ Yes															
No. of Cntrs		Sample ID		Comp/Grab	Matrix *	Depth	Date	Time											
MW1		Grab	GW	34.03	2022-10-27	1240	5												
MW2				25.3		1310													
MW3				27.53		1330													
MW4				25.65		1400													
MW5				27.02		1420													
MW6				24.48		1110													
MW7				24.13		1210													
MW8				23.03		1030													
MW9				25.96		1500													
MW10				28.06		1310													

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other _____

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) 		Date: 20221027	Time: 1700	Received by: (Signature) 		Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Hold #	
Relinquished by: (Signature) 		Date: 22722	Time: 1730	Received by: (Signature) 		Temp: 6.9 °C Bottles Received: 76		Condition: (lab use only)	
Relinquished by: (Signature) 		Date:	Time:	Received for lab by: (Signature) 		Date: 10/28/22 Time: 0900		COC Seal Intact: ___ Y ___ N ___ NA pH Checked: NCF:	

[illegible]