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## Report of Work Completed – Facility Decommissioning

<b>COGCC Location Name (ID)</b>	RIO BLANCO FED-63N97W /30NENE (315221)
<b>Client Location Name</b>	Federal 1-30
<b>COGCC Remediation Project #</b>	22838
<b>Legal Description</b>	NENE Section 30, T3N-R97W
<b>Coordinates (Lat/Long)</b>	40.205187 / -108.313490
<b>County</b>	Rio Blanco County, Colorado

Ms. Clark,

Confluence Compliance Companies, LLC (Confluence) prepared this Report of Work Completed (ROWC) for XTO Energy Inc. (XTO) to document recent site investigation activities associated with the abandonment of the FEDERAL 1-30 (API# 05-103-08096) well and associated infrastructure at the Federal 1-30 well pad (Location) previously operated by Sonterra Energy LLC (Sonterra). The Location is 23.5 miles northwest of Meeker, Colorado in Rio Blanco County, as illustrated in the attached Topographic Location Map. Additional information on the Location and the associated remediation project is provided in the title block above, the attached Site Diagrams, and the attached Laboratory Results Summary Table. This ROWC provides background on the Location, methods used to complete the investigation, results of the investigation, and recommendations for how to proceed with this information.

### Background

As required by Colorado Oil and Gas Conservation Commission (COGCC) Rule 911.a, XTO submitted Initial Form 27 Document 402891749 proposing site investigation activities associated with the plans to plug and abandon (P&A) the well and decommission the Location to open Remediation Project Number 22838.

From May 10 to July 19, 2022, Confluence was tasked with sampling the Location in accordance with COGCC Rule 911.a to facilitate facility decommissioning. Confluence personnel inspected the wellhead excavation, flowline trenches, and the footprints of all previous equipment and infrastructure, including the tanks, pump jack, separator, meter house, and dehydration unit. Soil from each location was characterized using visual and olfactory observations and field-screened for volatile organic compounds using a photoionization detector (PID). Where field screening indicated impacts to soil in any of these locations, the sample exhibiting the highest degree of impacts based on field screening was collected from the associated area and submitted for laboratory analysis of COGCC Table 915-1 soil constituents. Any impacted soil was segregated and stockpiled on site, and the extent of impacts were investigated through additional excavation and confirmation soil sampling. When no impacts were observed, one sample was collected from the base of the wellhead excavation, immediately adjacent to the well, areas mostly likely to be impacted within the flowline trenches such as connection points or elbows, and in the middle of each equipment footprint.

Background samples were also collected from nearby, native, non-impacted soil to characterize native levels of inorganic constituents of concern.

Collectively, laboratory results of P&A soil samples exceed COGCC Table 915-1 Residential Soil Screening Levels for electrical conductivity (EC), sodium adsorption ratio (SAR), pH, arsenic, and hexavalent chromium. Additionally, laboratory results of background soil samples exceed allowable limits for EC, SAR, pH, boron, arsenic, and hexavalent chromium.

COGCC Form 27 Document 403157992 was submitted September 12, 2022 to request a reduced analyte list of hexavalent chromium and to request consideration of COGCC Table 915-1 Footnotes 1 and 11 to establish alternative allowable limits. XTO requested alternative allowable limits for EC, SAR, pH, and arsenic of 20.200 millimhos per centimeter (mmhos/cm), 308, 10.3, and 31.75 milligrams per kilogram (mg/kg), respectively. This form and associated requests were approved September 20, 2022.

## Methodology

On September 29, 2022, Confluence returned to the Location to delineate the hexavalent chromium exceedance at the wellhead at 4 feet below ground surface (bgs). Prior to additional sampling, impacted material had been excavated and removed. One soil sample was collected from the wellhead-pumpjack excavation at 7 feet bgs.

On October 25, 2022, Confluence returned to the Location to conduct additional background characterization. Using a direct push drill rig, four soil borings (BG01-BG04) were advanced around the Location in native, non-impacted soil to depths ranging from 7.5 to 20 feet bgs. Soil borings were advanced both upgradient and downgradient of the Location. Two soil samples were collected from each soil boring except for BG04 from which three soil samples were collected. Sample collection depths were selected to target soil horizons where exceedances were observed on the Location.

All soil samples were collected in laboratory provided jars, immediately placed on ice, and shipped for laboratory analysis. The delineation soil sample was submitted for analysis of hexavalent chromium, and background samples were submitted for analysis of COGCC Table 915-1 inorganic constituents of concern. Sample locations are illustrated in the attached Site Diagrams.

## Results

These results summarize observations from onsite investigation efforts and associated field screening results. For organizational and presentation purposes the results summary is divided between general observations of lithology and hydrogeology for the entire Location and investigation activities.

### Lithology and Hydrogeology

Lithology at the Location is characterized as fine sandy loam. The native soil near the Location is characterized as Tisworth fine sandy loam which has a high content of gypsum & alkaline salt derived from sedimentary rock. The soil is visibly alkali and is noted to be characteristically high in salt and pH. Groundwater is expected to flow southeast toward Crooked Wash and ultimately the White River, located 3.0 miles southwest of the Location.



### Delineation Sampling Results

Laboratory results of the wellhead-pumpjack delineation sample were within COGCC Table 915-1 Residential Soil Screening Levels for hexavalent chromium.

### October Background Investigation Results

Laboratory results of background soil samples indicate values of EC, SAR, pH, boron, arsenic, and hexavalent chromium exceeding COGCC Table 915-1 Residential Soil Screening Levels. EC exceedances range from 4.380 to 6.370 mmhos/cm. SAR exceedances range from 9.14 to 117. Values of pH exceeding COGCC Table 915-1 range from 8.32 to 9.81. Boron exceeds at 3.18 milligrams per liter (mg/L). Arsenic exceedances range from 1.17 to 25.4 mg/kg. Hexavalent chromium exceedances range from 0.308 to 0.594 mg/kg.

### Analysis and Recommendations

Hexavalent chromium exceedances remain within the project area. However, the exceedances in all soil samples collected from final excavation extents are labeled with a "J" qualifier; stating that the identification of the analyte was made, however, the concentration is only an estimate due to a minimal amount of the analyte being exhibited in the sample material. Confluence recommends that XTO request the consideration of the "J" qualifier data from the COGCC as an estimated value and not an exceedance.

In recent conversations with the COGCC, the validity of the previously approved background soil sample 20220513-FED\_1-30-BGN(1235) was discussed. If the results of this sample are removed from consideration, background data at the Location continues to demonstrate elevated values of EC, SAR, pH, and arsenic with peak values of 8.600 mmhos/cm, 308, 10.3, and 25.4 mg/kg respectively. Confluence recommends that XTO request continued consideration of COGCC Table 915-1 Footnote 1 to concur that the exceedances within this project area are within range of observed background value.

Based on these analytical results, Confluence recommends that XTO request closure of this remediation project with a no further action (NFA) determination.

Confluence is grateful for the opportunity to support you with this project. If you have any questions about the methods, results, or recommendations presented here, please do not hesitate to contact me.

Regards,



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## Attachments

- Topographic Location Map
- Site Diagram – Pipeline Abandonment Soil Samples
- Site Diagram – Equipment Abandonment Soil Samples
- Site Diagram – Background Samples
- Laboratory Results Summary Table
- Boring Logs
- Laboratory Reports



## Topographic Location Map

SONTERRA ENERGY, L.L.C.

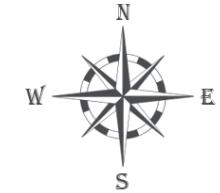
Federal 1-30

(RIO BLANCO FED-63N97W /30NENE)

COGCC Location ID: 315221

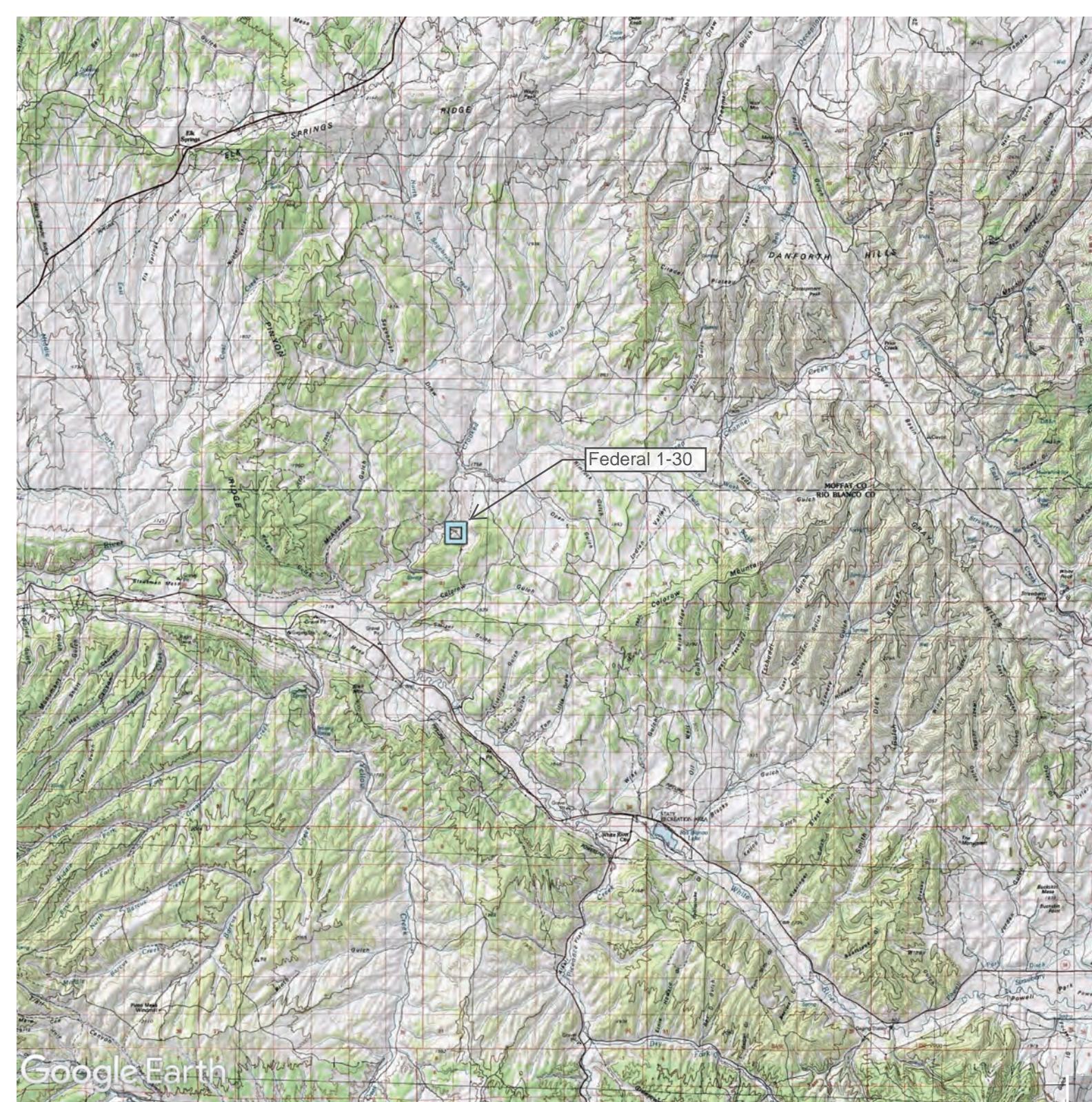
Rio Blanco County

NENE Sec. 30 T3N-R97W



Topographic map sourced from 2020 Earth Point using data provided by United States Geological Survey

Created by: Chris McKisson on 12/07/2021.



## Site Diagram Pipeline Abandonment Soil Samples

**SONTERRAENERGY, L.L.C.**

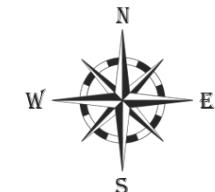
Federal 1-30

( RIO BLANCO FED-63N97W /30NENE)

COGCC Location ID: 315221

Rio Blanco County

NENE Sec. 30 T3S-R97W

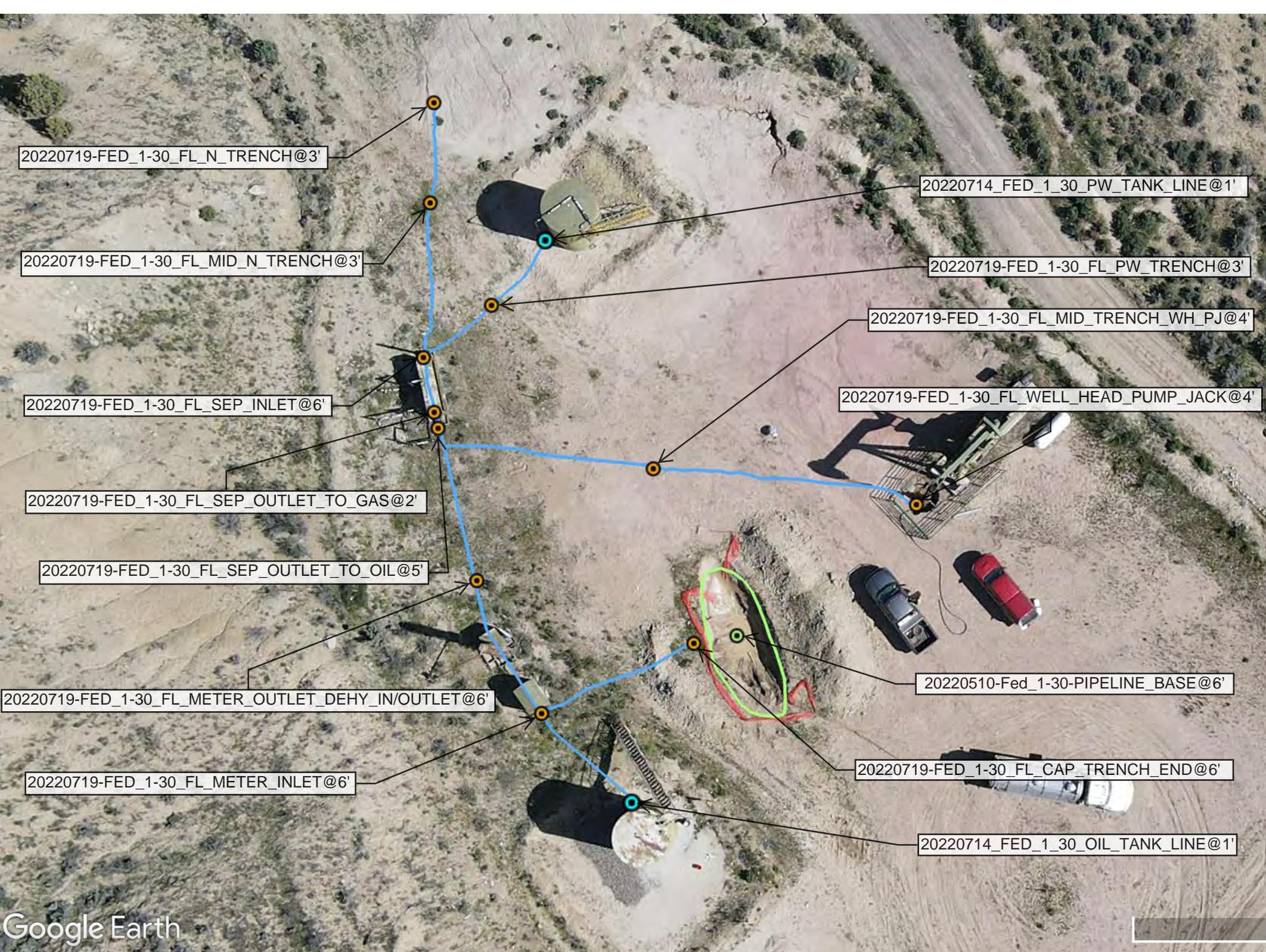


### Legend

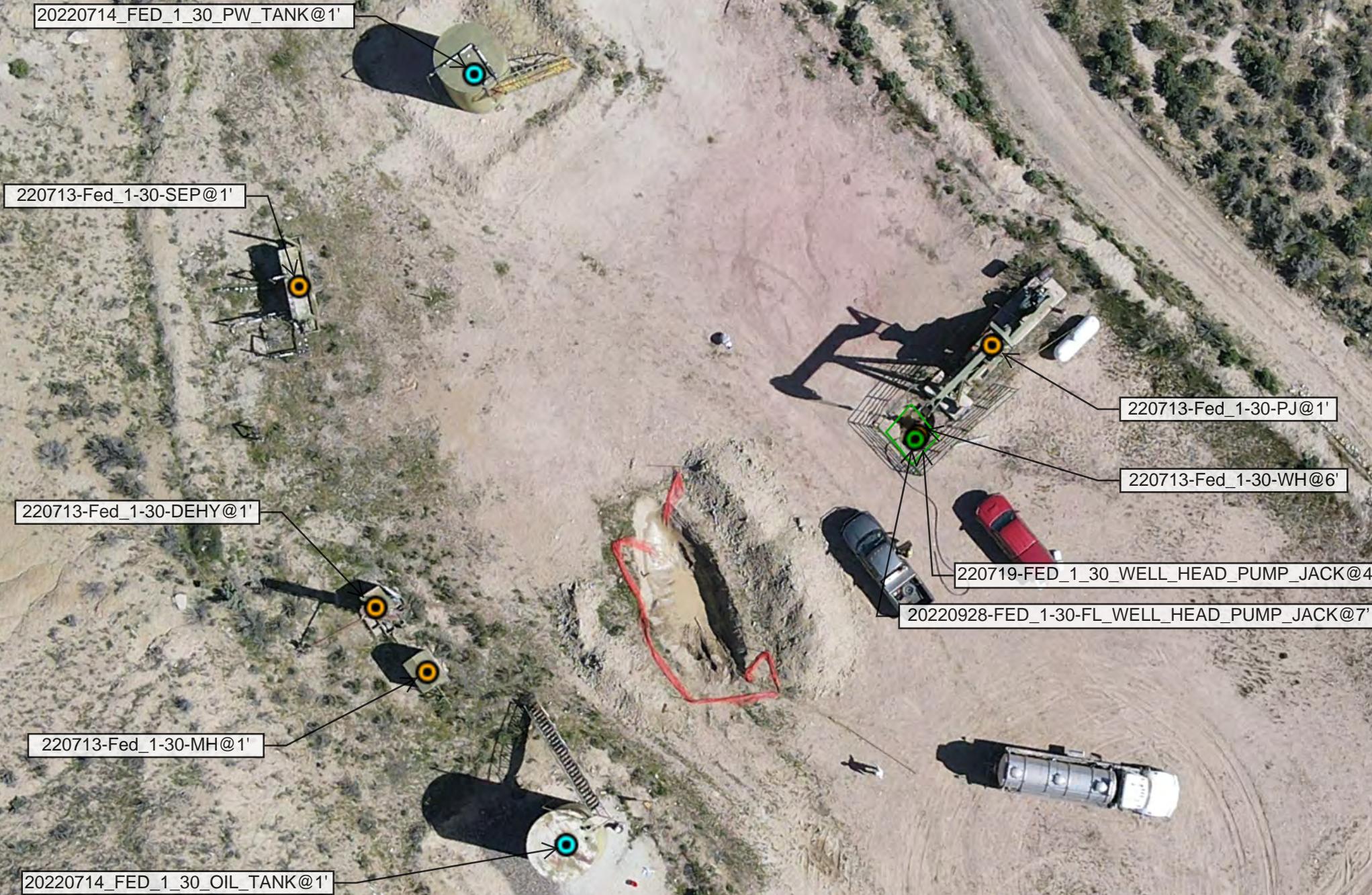
- Soil sample – 05/10/2022
- Soil sample – 07/14/2022
- Soil sample – 07/19/2022
- Pipeline Excavation – 05/10/2022
- Piping Trench

Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

Map created by: Chris McKisson on 08/19/2022.



## Site Diagram Equipment Abandonment Soil Samples



### SONTERRA ENERGY, L.L.C.

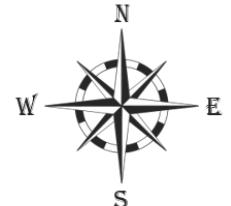
Federal 1-30

(RIO BLANCO FED-63N97W /30NENE)

COGCC Location ID: 315221

Rio Blanco County

NENE Sec. 30 T3N-R97W



### Legend

- Soil Sample – 7/13/2022
- Soil Sample – 7/14/2022
- Soil Sample – 9/28/2022
- Excavation Boundary – 9/28/2022

Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

Map created by: Sage Maher on 10/31/2022.

80 ft

Site Diagram  
Background SamplesSONTERRA ENERGY, L.L.C.

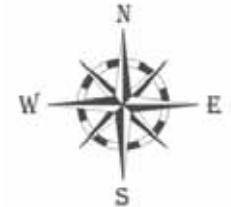
Federal 1-30

(RIO BLANCO FED-63N97W /30NENE)

COGCC Location ID: 315221

Rio Blanco County

NENE Sec. 30 T3N-R97W



## Legend

-  Background Sample – 05/13/2022
-  Background Sample – 07/13/2022
-  Background Sample – 10/25/2022

Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

Map created by: Andrew Smith on 10/26/2022.

## Laboratory Results Summary Table - Soil Federal 1-30 P&A

# Laboratory Results Summary Table - Soil Federal 1-30 P&A

Sample Date	Solid/Soil Source (Equipment) [Vault/Sump, Separator, Tank, Battery, Dump Line, Pit, Cuttings, Background, etc.]	Soil Screening and Remediation Limits			Soil Suitability for Reclamation			Metals (mg/kg [ppm])											
		COGCC Table 915-1 Residential ->			NA	4	6	6-8.3	2	0.68	15000	71	0.3	3100	400	1500	390	390	23000
		Depth -Z (feet) <span style="color: red;">(NEGATIVE VALUE)</span>	below ground surface (bgs)	Sample ID	PID (pm)	EC (Specific Conductance) (millimhos/cmeter) (by saturated paste method)	SAR (Sodium Adsorption Ratio) (calculation) (by saturated paste method)	pH (pH Units) (by saturated paste method)	Boron - Hot Water Soluble (mg/L)	Arsenic	Barium	Cadmium (mg/kg)	Chromium (VI)	Copper	Lead	Nickel	Selenium	Silver	Zinc
9/28/2022	Well Head	-7	F_E_WELL_HEAD_PUMP_JACK@7'	1.3	NA	NA	NA	NA	NA	NA	NA	NA	<1.00	NA	NA	NA	NA	NA	
7/13/2022	Well Head	-6	220713-FED_1-30WH@6'	68.4	13.400	24.5	7.84	1.26	6.06	108	0.47	<1.00	30.2	14.4	17.6	<2.00	<1.00	71.6	
7/14/2022	Tank	-1	PW_TANK@1'	NA	1.750	8.96	9.07	0.281	4.67	145	0.246	0.451	19.1	10.9	14.5	<2.00	<1.00	53.2	
5/13/2022	Tank	0	20220513-FED_1-30-FILL_COMP	0.2	2.170	4.14	7.95	1.03	3.41	86.7	0.255	<1.00	9.05	6.65	11.1	<2.00	<1.00	30.2	
7/13/2022	Separator	-1	220713-FED_1-30SEP@1'	3.7	1.260	19.3	8.73	0.676	4.41	156	0.483	<1.00	26.0	18.1	17.0	<2.00	<1.00	64.3	
7/13/2022	Pump Jack	-1	220713-FED_1-30PJ@1'	1.1	8.840	41.8	8.12	0.632	5.25	776	0.438	<1.00	27.2	28.0	17.2	<2.00	<1.00	101	
5/10/2022	Pipeline	-6	20220510-Fed_1-30_PIPELINE_BASE@6'	1.6	0.542	1.23	9.35	0.426	5.47	423	0.687	0.404	23.0	16.3	16.0	<2.00	<1.00	58.0	
7/14/2022	Oil Tank	-1	OIL_TANK@1'	NA	0.435	6.84	9.96	0.180	0.810	46.2	2.20	0.345	40.9	31.6	18.8	<2.00	<1.00	64.1	
7/13/2022	Meter House	-1	220713-FED_1-30MH@1'	2.6	0.262	0.261	8.26	0.551	2.11	226	0.187	0.565	36.8	11.9	21.8	<2.00	<1.00	78.9	
7/19/2022	Flowline	-6	220719-FED_1_30_CAP_TRENCH_END@6'	0.0	2.740	16.5	8.50	0.503	6.48	105	0.372	<1.00	24.6	15.6	16.6	<2.00	<1.00	61.9	
7/19/2022	Flowline	-6	220719-FED_1_30_METER_INLET@6'	0.0	0.304	1.14	8.40	0.712	5.64	123	0.400	<1.00	25.8	14.6	18.5	<2.00	<1.00	67.6	
7/19/2022	Flowline	-6	220719-FED_1_30_METER_OUTLET_DEHY_IN/OUTLET@6'	0.0	1.000	16.0	9.11	0.848	5.71	81.6	0.397	0.441	25.8	13.9	17.6	<2.00	<1.00	63.7	
7/19/2022	Flowline	-6	220719_FED_1_30_SEP_INLET@6'	0.0	1.280	8.98	8.59	0.794	2.33	199	0.294	0.361	27.3	25.1	15.2	<2.00	<1.00	56.7	
7/19/2022	Flowline	-5	220719_FED_1_30_SEP_OUTLET_TO_OIL@5'	0.0	0.507	6.46	9.15	0.949	2.65	2590	0.362	0.425	32.0	15.5	19.6	<2.00	<1.00	77.6	
7/19/2022	Flowline	-4	220719-FED_1_30_MID_TRENCH_WH_PJ@4'	0.0	8.450	60.7	8.86	0.419	6.40	589	0.384	0.538	24.8	23.7	16.3	<2.00	<1.00	84.2	
7/19/2022	Flowline	-4	220719-FED_1_30_WELL_HEAD_PUMP_JACK@4'	0.0	9.220	36.5	8.03	0.935	5.95	302	0.456	1.35	28.7	19.6	16.2	<2.00	<1.00	72.2	
7/19/2022	Flowline	-3	220719-FED_1_30_N_TRENCH@3'	0.0	3.200	42.5	9.15	0.942	4.01	2520	0.382	0.435	26.1	30.0	15.4	<2.00	<1.00	64.5	
7/19/2022	Flowline	-3	220719_FED_1_30_MID_N_TRENCH@3'	0.0	1.120	6.11	8.42	0.586	6.05	196	0.597	0.854	34.3	20.3	19.5	<2.00	<1.00	74.4	
7/14/2022	Dumpline	-1	PW_TANK_LINE@1'	NA	6.140	67.4	8.41	1.04	6.20	608	0.217	0.506	23.2	16.5	17.0	<2.00	<1.00	65.5	
7/14/2022	Dumpline	-1	OIL_TANK_LINE@1'	NA	0.439	3.10	9.35	0.212	3.60	126	0.266	0.622	41.3	12.9	21.8	<2.00	<1.00	69.7	
7/13/2022	Dehydrator	-2	220713-FED_1-30DEHY@1'	4.2	0.933	3.04	7.99	1.42	3.47	223	0.579	<1.00	35.1	12.8	22.3	<2.00	<1.00	84.7	
10/25/2022	Background	-10	221025-FED_1-30-BG01@7.5'-10'	NA	4.380	10.0	7.79	1.51	1.17	21.7	0.145	0.594	9.44	6.39	5.64	<2.00	<1.00	23.1	
10/25/2022	Background	-15	221025-FED_1-30-BG01@12.5'-15'	NA	6.370	9.14	7.45	3.18	25.4	91.0	1.46	0.308	56.2	30.3	42.3	<2.00	<1.00	129	
10/25/2022	Background	-15	221025-FED_1-30-BG02@12.5'-15'	NA	4.580	17.9	8.04	0.794	7.62	135	0.612	0.384	42.9	28.4	24.2	<2.00	<1.00	96.1	
10/25/2022	Background	-20	221025-FED_1-30-BG02@17.5'-20'	NA	3.350	21.6	8.32	0.564	2.95	70.6	0.315	0.296	23.7	20.7	12.8	<2.00	<1.00	55.1	
10/25/2022	Background	-15	221025-FED_1-30-BG03@12.5'-15'	NA	3.250	45.4	8.26	0.609	6.36	86.1	0.474	0.281	31.2	20.1	19.0	<2.00	<1.00	71.7	
10/25/2022	Background	-20	221025-FED_1-30-BG03@17.5'-20'	NA	3.280	117	9.58	1.25	6.27	220	0.617	0.327	51.7	34.8	28.1	<2.00	<1.00	111	
10/25/2022	Background	-10	221025-FED_1-30-BG04@7.5'-10'	NA	2.300	24.9	9.81	1.70	11.0	88.0	0.731	0.431	18.0	18.7	12.8	<2.00	<1.00	54.2	
10/25/2022	Background	-15	221025-FED_1-30-BG04@12.5'-15'	NA	1.260	13.5	9.69	0.908	5.47	81.8	0.657	<1.00	20.9	17.9	16.3	<2.00	<1.00	60.2	
10/25/2022	Background	-20	221025-FED_1-30-BG04@17.5'-20'	NA	1.040	4.56	9.77	0.925	6.55	87.5	0.568	<1.00	35.9	23.4	23.1	<2.00	<1.00	84.1	
7/13/2022	Background	-1	220713-FED_1-30BG(0930)@1'	NA	1.630	55.3	9.57	1.32	3.83	44.6	0.281	<1.00	10.0	7.66	7.28	<2.00	<1.00	29.0	
7/13/2022	Background	-0.5	220713-FED_1-30BG(0935)@0.5'	NA	6.460	308	9.84	2.36	2.68	34.9	0.210	<1.00	7.56	5.95	5.97	<2.00	<1.00	24.3	
7/13/2022	Background	-0.5	220713-FED_1-30BG(0945)@0.5'	NA	8.600	306	10.3	1.89	2.72	95.6	0.172	<1.00	8.71	6.62	5.91	<2.00	<1.00	24.8	
5/13/2022	Background	-0.5	20220513-FED_1-30-BGN(1205)	4.5	0.120	0.378	8.13	0.316	1.47	28.2	0.582	<1.00	41.3	20.5	24.1	<2.00	<1.00	91.6	
5/13/2022	Background	-0.5	20220513-FED_1-30-BGN(1215)	3.2	0.0592	1.38	8.25	0.502	0.843	18.2	0.131	0.414	46.9	21.2	13.1	<2.00	<1.00	56.3	
5/13/2022	Background	-0.5	20220513-FED_1-30-BGN(1220)	0.1	0.136	0.306	8.52	0.283	2.52	38.1	0.344	0.344	33.6	18.2	18.0	<2.00	<1.00	74.3	
5/13/2022	Background	-0.5	20220513-FED_1-30-BGN(1235)	0.0	20.200	2030	10.1	6.29	6.76	36.1	0.292	0.298	23.0	12.5	12.9	<2.00	<1.00	54.6	

Project Name: Fed 1-30 Pit							
Location: Fed 1-30							
Lat/Long: 40.204561 / -108.313374					Project Number:		
Boring Number: BG01		Scope: Background samples and delineation			Geologist: Andrew Smith		
Date: 10/ 25 /22	Start Time: 0900	Finish Time: 0925	DTW: -----	Drilling Equipment: 9520 - VTR			
Drilling Method: Direct Push		Drilling Contractor: Alpine Remediation			Driller: Edgar Chavez		
Depth (ft)	Time	Recovery (%)	Standard Penetration Test Results	USCS Symbol	Material Description		PID Reading (ppm)
0 - 5	0905	45	NA	MH	Sandy - loam with small angular gravel. Med-fine grain. Dry. Plastic. Tan color. No odor no stain.		0.0
5-10	0910	100		CL	5' - 7.5': Same as above with more clay content as depth increases. 7.5' - 10': Weathered shale. Small angular gravel. Fractured shale. Slightly plastic. Density increases with depth. Brown to grey color. Some white streaking. No odor no stain.		0.1
10-12.5	0915	100		ML	Tan to white color. Silty sand. Very fine grain and extremely dense, but easily fractured. Fractured shale stone. Very little small angular gravel. No odor no stain.  12.5 - 14: Same as above.		0.1
12.5-15	0925	100		ML / CL	14' - 15': Weathered shale. Small angular gravel. Fractured shale. Slightly plastic. Density increases with depth. Brown to grey color. Some white streaking. Sample liner crushed. Soil too dense to continue. No odor no stain.		0.1
Total Depth of Boring: 15'		Samples Collected: 7.5' - 10' 12.5' - 15'			Comments: Sampler refusal @ 15'		

Project Name: Fed 1-30 Pit							
Location: Fed 1-30							
Lat/Long: 40.204775 / -108.313251					Project Number:		
Boring Number: BG02		Scope: Background samples and delineation			Geologist: Andrew Smith		
Date: 10/ 25 /22	Start Time: 0930	Finish Time: 0950	DTW: -----	Drilling Equipment: 9520 - VTR			
Drilling Method: Direct Push		Drilling Contractor: Alpine Remediation			Driller: Edgar Chavez		
Depth (ft)	Time	Recovery (%)	Standard Penetration Test Results	USCS Symbol	Material Description		PID Reading (ppm)
0 - 5	0935	75	NA	MH / CL	0' - 3': Sandy - loam with small angular gravel. Fine grain. Dry. Plastic. Tan color. 3' - 5': Weathered shale. Small angular gravel. Fractured shale. Slightly plastic. Density increases with depth. Brown to grey color. Some white streaking. No odor no stain.		0.0
5-10	0940	80		CL	Same as above		0.3
10-15	0945	70		CL	Same as above. Slightly more dense		0.1
15-20	0950	70		CL	Same as above. More tan coloration		0.0
Total Depth of Boring:  20'		Samples Collected:  12.5' - 15' 17.5' - 20'			Comments:		

Project Name: Fed 1-30 Pit							
Location: Fed 1-30							
Lat/Long: 40.204930 / -108.313112					Project Number:		
Boring Number: BG03		Scope: Background samples and delineation			Geologist: Andrew Smith		
Date: 10/ 25 /22	Start Time: 1000	Finish Time: 1015	DTW: -----	Drilling Equipment: 9520 - VTR			
Drilling Method: Direct Push		Drilling Contractor: Alpine Remediation			Driller: Edgar Chavez		
Depth (ft)	Time	Recovery (%)	Standard Penetration Test Results	USCS Symbol	Material Description		PID Reading (ppm)
0 - 5	1003	50	NA	MH / CL	0' - 2': Sandy - loam with small angular gravel. Fine grain. Dry. Plastic. Tan color. 2' - 5': Weathered shale. Small angular gravel. Fractured shale. Slightly plastic. Density increases with depth. Brown to grey color. Some white streaking. No odor no stain.		0.0
5-10	1005	35		CL	Same as above. Slightly moist.		0.0
10-15	1010	65		CL	Same as above. Becoming dryer at 13'.		0.1
15-20	1015	75		CL	Same as above. Slightly more dense.		0.1
Total Depth of Boring:  20'		Samples Collected:  12.5' - 15' 17.5' - 20'			Comments:		

Project Name: Fed 1-30 Pit							
Location: Fed 1-30							
Lat/Long: 40.206118 / -108.314311					Project Number:		
Boring Number: BG04		Scope: Background samples and delineation			Geologist: Andrew Smith		
Date: 10/25/22	Start Time: 1040	Finish Time: 1055	DTW: -----	Drilling Equipment: 9520 - VTR			
Drilling Method: Direct Push		Drilling Contractor: Alpine Remediation			Driller: Edgar Chavez		
Depth (ft)	Time	Recovery (%)	Standard Penetration Test Results	USCS Symbol	Material Description		PID Reading (ppm)
0 - 5	1042	60	NA	ML / CL	0' - 2.5': Clayey - loam with small angular gravel. Fine grain. Dry. Plastic. Tan color. 2.5' - 5': Weathered shale. Small angular gravel. Fractured shale. Easily fractured Slightly plastic. Density increases with depth. Brown to grey color. Some white streaking. No odor no stain.		0.0
5-10	1045	75		CL	Same as above with red and white streakings throughout.		0.2
10-15	1050	75		CL / SC	10' - 13': Same as above. 13' - 15': Wet sandy clay. Fine grain. Highly plastic. Brown. Lacking any colored striations as noted above. Dense but very soft.		0.1
15-20	1055	75		SC	Same as 13' - 15' above.		0.1
Total Depth of Boring:  20'		Samples Collected:  7.5' - 10' 12.5' - 15' 17.5' - 20'			Comments:		



# ANALYTICAL REPORT

May 23, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>GI

<sup>8</sup>AI

<sup>9</sup>SC

## Confluence Compliance Companies - CO

Sample Delivery Group: L1492937

Samples Received: 05/12/2022

Project Number:

Description: P&A

Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

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

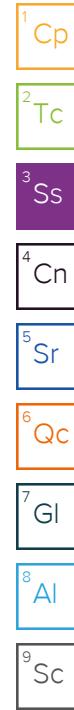
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
20220510-FED_1-30-PIPELINE_BASE@6' L1492937-01 Solid			Alex Slorby	05/10/22 13:30	05/12/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1865266	1	05/18/22 23:43	05/18/22 23:43	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1864659	1	05/17/22 23:57	05/19/22 11:38	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1866246	1	05/19/22 13:50	05/19/22 13:55	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1864049	1	05/15/22 13:56	05/15/22 17:41	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1864463	1	05/17/22 07:23	05/18/22 18:06	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1865268	2	05/18/22 00:08	05/19/22 02:00	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1864465	5	05/17/22 07:42	05/17/22 17:00	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1863882	1	05/13/22 16:46	05/18/22 12:22	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1864071	1	05/13/22 16:46	05/15/22 11:41	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1867115	1	05/20/22 17:30	05/21/22 15:51	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1865823	1	05/18/22 21:12	05/19/22 05:20	AMG	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

Collected date/time: 05/10/22 13:30

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	1.23		1	05/18/2022 23:43	WG1865266

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.404	J	0.255	1.00	1	05/19/2022 11:38	WG1864659

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.35	T8	1	05/19/2022 13:55	WG1866246

## Sample Narrative:

L1492937-01 WG1866246: 9.35 at 23C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	542		umhos/cm	umhos/cm		WG1864049

## Sample Narrative:

L1492937-01 WG1864049: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	423	J3 V	0.0852	0.500	1	05/18/2022 18:06	WG1864463
Cadmium	0.687		0.0471	0.500	1	05/18/2022 18:06	WG1864463
Copper	23.0		0.400	2.00	1	05/18/2022 18:06	WG1864463
Lead	16.3	O1	0.208	0.500	1	05/18/2022 18:06	WG1864463
Nickel	16.0		0.132	2.00	1	05/18/2022 18:06	WG1864463
Selenium	U		0.764	2.00	1	05/18/2022 18:06	WG1864463
Silver	U		0.127	1.00	1	05/18/2022 18:06	WG1864463
Zinc	58.0		0.832	5.00	1	05/18/2022 18:06	WG1864463

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	0.426		mg/l	0.0334	0.400	2	05/19/2022 02:00	WG1865268

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	5.47	O1	0.100	1.00	5	05/17/2022 17:00	WG1864465

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0322	J	0.0217	0.100	1	05/18/2022 12:22	WG1863882
(S) a,a,a-Trifluorotoluene(FID)	94.5			77.0-120		05/18/2022 12:22	WG1863882

## 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	05/15/2022 11:41	<a href="#">WG1864071</a>
Toluene	U		0.00130	0.00500	1	05/15/2022 11:41	<a href="#">WG1864071</a>
Ethylbenzene	U		0.000737	0.00250	1	05/15/2022 11:41	<a href="#">WG1864071</a>
Xylenes, Total	U		0.000880	0.00650	1	05/15/2022 11:41	<a href="#">WG1864071</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	05/15/2022 11:41	<a href="#">WG1864071</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	05/15/2022 11:41	<a href="#">WG1864071</a>
(S) Toluene-d8	112			75.0-131		05/15/2022 11:41	<a href="#">WG1864071</a>
(S) 4-Bromofluorobenzene	87.1			67.0-138		05/15/2022 11:41	<a href="#">WG1864071</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		05/15/2022 11:41	<a href="#">WG1864071</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## 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	U		1.61	4.00	1	05/21/2022 15:51	<a href="#">WG1867115</a>
C28-C36 Motor Oil Range	1.59	<u>B J</u>	0.274	4.00	1	05/21/2022 15:51	<a href="#">WG1867115</a>
(S) o-Terphenyl	52.5			18.0-148		05/21/2022 15:51	<a href="#">WG1867115</a>

## 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
Anthracene	U		0.00230	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Acenaphthene	U		0.00209	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Acenaphthylene	U		0.00216	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Chrysene	U		0.00232	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Fluoranthene	U		0.00227	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Fluorene	U		0.00205	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Naphthalene	U		0.00408	0.0200	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Phenanthrene	U		0.00231	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
Pyrene	U		0.00200	0.00600	1	05/19/2022 05:20	<a href="#">WG1865823</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	05/19/2022 05:20	<a href="#">WG1865823</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	05/19/2022 05:20	<a href="#">WG1865823</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	05/19/2022 05:20	<a href="#">WG1865823</a>
(S) p-Terphenyl-d14	86.3			23.0-120		05/19/2022 05:20	<a href="#">WG1865823</a>
(S) Nitrobenzene-d5	65.3			14.0-149		05/19/2022 05:20	<a href="#">WG1865823</a>
(S) 2-Fluorobiphenyl	67.9			34.0-125		05/19/2022 05:20	<a href="#">WG1865823</a>

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3793808-1 05/19/22 10:51

<sup>1</sup>Cp

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

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1489944-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489944-01 05/19/22 11:02 • (DUP) R3793808-3 05/19/22 11:07

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	0.555	0.610	1	9.50	J	20

## L1492939-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1492939-06 05/19/22 12:19 • (DUP) R3793808-4 05/19/22 12:25

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

## Laboratory Control Sample (LCS)

(LCS) R3793808-2 05/19/22 10:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	10.1	101	80.0-120	

## L1492955-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492955-04 05/19/22 12:56 • (MS) R3793808-5 05/19/22 13:01 • (MSD) R3793808-6 05/19/22 13:06

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 %
Hexavalent Chromium	20.0	U	16.0	13.1	80.0	65.5	1	75.0-125		J6	19.9	20

## L1492955-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1492955-04 05/19/22 12:56 • (MS) R3793808-7 05/19/22 13:11

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	651	U	656	101	50	75.0-125	

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## L1494981-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1494981-02 05/19/22 13:55 • (DUP) R3793910-2 05/19/22 13:55

<sup>1</sup>Cp

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	pH	SU		%		%
pH	7.72	7.66	1	0.780		1

## Sample Narrative:

OS: 7.72 at 22.8C

DUP: 7.66 at 22.9C

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1494981-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1494981-03 05/19/22 13:55 • (DUP) R3793910-3 05/19/22 13:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	pH	SU		%		%
pH	7.58	7.57	1	0.132		1

## Sample Narrative:

OS: 7.58 at 23C

DUP: 7.57 at 23.2C

## Laboratory Control Sample (LCS)

(LCS) R3793910-1 05/19/22 13:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.91	99.1	99.0-101	

## Sample Narrative:

LCS: 9.91 at 23C

WG1864049

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3791987-1 05/15/22 17:41

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

## Sample Narrative:

BLANK: at 25C

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

## L1492939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492939-01 05/15/22 17:41 • (DUP) R3791987-3 05/15/22 17:41

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	1300	1310	1	0.614		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1492957-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492957-01 05/15/22 17:41 • (DUP) R3791987-4 05/15/22 17:41

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	687	619	1	10.4		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3791987-2 05/15/22 17:41

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	268	280	105	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3793447-1 05/18/22 18:01

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3793447-2 05/18/22 18:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	104	104	80.0-120	
Cadmium	100	100	100	80.0-120	
Copper	100	102	102	80.0-120	
Lead	100	100	100	80.0-120	
Nickel	100	102	102	80.0-120	
Selenium	100	104	104	80.0-120	
Silver	20.0	19.9	99.7	80.0-120	
Zinc	100	98.2	98.2	80.0-120	

## L1492937-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492937-01 05/18/22 18:06 • (MS) R3793447-5 05/18/22 18:15 • (MSD) R3793447-6 05/18/22 18:17

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	423	612	500	189	77.2	1	75.0-125	V	13	20.1
Cadmium	100	0.687	109	101	109	100	1	75.0-125			7.75
Copper	100	23.0	138	130	115	107	1	75.0-125			6.58
Lead	100	16.3	127	118	111	102	1	75.0-125			7.42
Nickel	100	16.0	130	121	114	105	1	75.0-125			7.00
Selenium	100	U	113	105	113	105	1	75.0-125			7.57
Silver	20.0	U	21.8	20.3	109	102	1	75.0-125			6.96
Zinc	100	58.0	166	156	108	97.6	1	75.0-125			6.48

WG1865268

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

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3793538-1 05/19/22 01:53

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

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

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

(LCS) R3793538-2 05/19/22 01:55 • (LCSD) R3793538-3 05/19/22 01:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.06	1.06	106	106	80.0-120			0.497	20

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3792911-1 05/17/22 16:53

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

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

## Laboratory Control Sample (LCS)

(LCS) R3792911-2 05/17/22 16:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	88.7	88.7	80.0-120	

## L1492937-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492937-01 05/17/22 17:00 • (MS) R3792911-5 05/17/22 17:10 • (MSD) R3792911-6 05/17/22 17:13

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 %
Arsenic	100	5.47	96.6	86.0	91.2	80.6	5	75.0-125			11.6	20

WG1863882

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

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3793487-2 05/18/22 11:35

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	98.9		77.0-120	

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

## Laboratory Control Sample (LCS)

(LCS) R3793487-1 05/18/22 10:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TPH (GC/FID) Low Fraction	5.50	5.82	106	72.0-127	
(S) <i>a,a,a-Trifluorotoluene(FID)</i>		105		77.0-120	

## L1492937-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492937-01 05/18/22 12:22 • (MS) R3793487-3 05/18/22 19:10 • (MSD) R3793487-4 05/18/22 19:30

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
TPH (GC/FID) Low Fraction	5.45	0.0322	5.53	6.11	101	111	1	10.0-151			9.97	28
(S) <i>a,a,a-Trifluorotoluene(FID)</i>				109	112			77.0-120				

WG1864071

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

## QUALITY CONTROL SUMMARY

[L1492937-01](#)

## Method Blank (MB)

(MB) R3792603-3 05/15/22 09:45

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	113		75.0-131	
(S) 4-Bromofluorobenzene	83.1		67.0-138	
(S) 1,2-Dichloroethane-d4	97.2		70.0-130	

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

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

(LCS) R3792603-1 05/15/22 08:28 • (LCSD) R3792603-2 05/15/22 08:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	0.125	0.115	0.116	92.0	92.8	70.0-123			0.866	20
Toluene	0.125	0.130	0.128	104	102	75.0-121			1.55	20
Ethylbenzene	0.125	0.142	0.143	114	114	74.0-126			0.702	20
Xylenes, Total	0.375	0.416	0.411	111	110	72.0-127			1.21	20
1,2,4-Trimethylbenzene	0.125	0.125	0.122	100	97.6	70.0-126			2.43	20
1,3,5-Trimethylbenzene	0.125	0.119	0.118	95.2	94.4	73.0-127			0.844	20
(S) Toluene-d8				99.4	101	75.0-131				
(S) 4-Bromofluorobenzene				93.8	94.8	67.0-138				
(S) 1,2-Dichloroethane-d4				113	112	70.0-130				

ACCOUNT:

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PROJECT:

SDG:

DATE/TIME:

L1492937

PAGE:

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## Method Blank (MB)

(MB) R3794924-1 05/21/22 10:17

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	0.316	J	0.274	4.00
(S) o-Terphenyl	66.5			18.0-148

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

## Laboratory Control Sample (LCS)

(LCS) R3794924-2 05/21/22 10:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
C10-C28 Diesel Range	50.0	33.4	66.8	50.0-150	
(S) o-Terphenyl		55.6		18.0-148	

## L1492939-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492939-07 05/21/22 16:46 • (MS) R3794924-3 05/21/22 16:59 • (MSD) R3794924-4 05/21/22 17:13

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	227	304	461	154	468	1	50.0-150	V	E J3 V	41.0
(S) o-Terphenyl				43.4	84.5		18.0-148				20

## Method Blank (MB)

(MB) R3793741-2 05/19/22 05:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Anthracene	U		0.00230	0.00600	<sup>1</sup> Cp
Acenaphthene	U		0.00209	0.00600	<sup>2</sup> Tc
Acenaphthylene	U		0.00216	0.00600	<sup>3</sup> Ss
Benzo(a)anthracene	U		0.00173	0.00600	<sup>4</sup> Cn
Benzo(a)pyrene	U		0.00179	0.00600	<sup>5</sup> Sr
Benzo(b)fluoranthene	U		0.00153	0.00600	<sup>6</sup> Qc
Benzo(g,h,i)perylene	U		0.00177	0.00600	<sup>7</sup> Gl
Benzo(k)fluoranthene	U		0.00215	0.00600	<sup>8</sup> Al
Chrysene	U		0.00232	0.00600	<sup>9</sup> Sc
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	
Naphthalene	U		0.00408	0.0200	
Phenanthrene	U		0.00231	0.00600	
Pyrene	U		0.00200	0.00600	
1-Methylnaphthalene	U		0.00449	0.0200	
2-Methylnaphthalene	U		0.00427	0.0200	
2-Chloronaphthalene	U		0.00466	0.0200	
(S) p-Terphenyl-d14	101		23.0-120		
(S) Nitrobenzene-d5	67.3		14.0-149		
(S) 2-Fluorobiphenyl	77.2		34.0-125		

## Laboratory Control Sample (LCS)

(LCS) R3793741-1 05/19/22 04:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0573	71.6	50.0-126	
Acenaphthene	0.0800	0.0622	77.8	50.0-120	
Acenaphthylene	0.0800	0.0610	76.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0579	72.4	45.0-120	
Benzo(a)pyrene	0.0800	0.0543	67.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0767	95.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0668	83.5	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0715	89.4	49.0-125	
Chrysene	0.0800	0.0667	83.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0645	80.6	47.0-125	
Fluoranthene	0.0800	0.0597	74.6	49.0-129	

## QUALITY CONTROL SUMMARY

L1492937-01

## Laboratory Control Sample (LCS)

(LCS) R3793741-1 05/19/22 04:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0624	78.0	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0617	77.1	46.0-125	
Naphthalene	0.0800	0.0609	76.1	50.0-120	
Phenanthrene	0.0800	0.0644	80.5	47.0-120	
Pyrene	0.0800	0.0693	86.6	43.0-123	
1-Methylnaphthalene	0.0800	0.0622	77.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0596	74.5	50.0-120	
2-Chloronaphthalene	0.0800	0.0633	79.1	50.0-120	
(S) p-Terphenyl-d14		98.2	23.0-120		
(S) Nitrobenzene-d5		74.6	14.0-149		
(S) 2-Fluorobiphenyl		78.7	34.0-125		

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

## L1492236-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492236-16 05/19/22 10:59 • (MS) R3793741-3 05/19/22 11:17 • (MSD) R3793741-4 05/19/22 11:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	U	0.0646	0.0705	80.7	88.1	1	10.0-145		8.73	30
Acenaphthene	0.0800	0.113	0.0993	0.0954	0.000	0.000	1	14.0-127	J6	J6	4.01
Acenaphthylene	0.0800	U	0.0694	0.0728	86.8	91.0	1	21.0-124			4.78
Benzo(a)anthracene	0.0800	0.0377	0.0736	0.0835	44.9	57.3	1	10.0-139			12.6
Benzo(a)pyrene	0.0800	0.0422	0.0675	0.0822	31.6	50.0	1	10.0-141			19.6
Benzo(b)fluoranthene	0.0800	0.0510	0.0692	0.0915	22.8	50.6	1	10.0-140			27.8
Benzo(g,h,i)perylene	0.0800	0.0428	0.0627	0.0808	24.9	47.5	1	10.0-140			25.2
Benzo(k)fluoranthene	0.0800	0.0170	0.0556	0.0696	48.3	65.8	1	10.0-137			22.4
Chrysene	0.0800	0.0483	0.0789	0.0907	38.3	53.0	1	10.0-145			13.9
Dibenz(a,h)anthracene	0.0800	0.00784	0.0527	0.0612	56.1	66.7	1	10.0-132			14.9
Fluoranthene	0.0800	0.112	0.100	0.0991	0.000	0.000	1	10.0-153	J6	J6	0.904
Fluorene	0.0800	0.139	0.0896	0.0971	0.000	0.000	1	11.0-130	J6	J6	8.03
Indeno(1,2,3-cd)pyrene	0.0800	0.0327	0.0599	0.0801	34.0	59.3	1	10.0-137			28.9
Naphthalene	0.0800	0.0814	0.0669	0.0776	0.000	0.000	1	10.0-135	J6	J6	14.8
Phenanthrene	0.0800	0.211	0.118	0.129	0.000	0.000	1	10.0-144	J6	J6	8.91
Pyrene	0.0800	0.169	0.128	0.114	0.000	0.000	1	10.0-148	J6	J6	11.6
1-Methylnaphthalene	0.0800	0.249	0.106	0.177	0.000	0.000	1	10.0-142	J6	J3 J6	50.2
2-Methylnaphthalene	0.0800	0.138	0.0807	0.237	0.000	124	1	10.0-137	J6	J3	98.4
2-Chloronaphthalene	0.0800	U	0.0532	0.0571	66.5	71.4	1	29.0-120			7.07
(S) p-Terphenyl-d14					78.7	88.1		23.0-120			
(S) Nitrobenzene-d5					58.0	68.3		14.0-149			
(S) 2-Fluorobiphenyl					68.3	73.5		34.0-125			

# 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.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
(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.	<sup>6</sup> Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>7</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>8</sup> Al
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.	<sup>9</sup> Sc
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

B	The same analyte is found in the associated blank.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

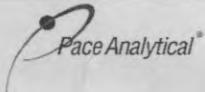
<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder  
MTJL Log-in Number Here

Company: Confluence Compliance Companies		Billing Information: Info on file						ALL BOLD OUTLINED AREAS are for LAB USE ONLY							
Address: Info on file								Container Preservative Type **							
Report To: Chris McKisson		Email To: Info on file						Lab Project Manager:							
Copy To: remediation@confluence-cc.com		Site Collection Info/Address:						** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) z (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____							
Customer Project Name/Number: P&A		State: County/City: Time Zone Collected: / [ ] PT [ ] MT [ ] CT [ ] ET						Analyses							
Phone: _____ Email: _____		Site/Facility ID #: Federal 1-30			Compliance Monitoring? [ ] Yes [X] No			Lab Profile/Line:							
Collected By (print): Alex Slorby		Purchase Order #: _____ Quote #: _____			DW PWS ID #: _____ DW Location Code: _____			Lab Sample Receipt Custody Seals Prese Custody Signatures Collector Signature Bottles Intact Correct Bottles Sufficient Volume Samples Received on VOA - Headspace Acc USDA Regulated Soil Samples in Holding Residual Chlorine P Cl Strips: _____ Sample pH Acceptabl pH Strips: _____ Sulfide Present Lead Acetate Strips							
Collected By (signature): <i>Alex Slorby</i>		Turnaround Date Required: <b>RUSH</b>			Immediately Packed on Ice: [X] Yes [ ] No			LAB USE ONLY: Lab Sample # / Comm <i>U492937</i>							
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____		Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day			Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____										
Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)															
Customer Sample ID 0220510-Fed_1-30-PIPELINE_BASE@6'		Matrix * SS	Comp / Grab G	Collected (or Composite Start)		Composite End		Res Cl 2	# of Ctns G	Container Type: Plastic (P) or Glass (G)					
				Date 5/10/2022	Time 1330	Date	Time			TPH (GRO/DRO/ORO)	X	Table 915-1 VOC	X	Table 915-1 PAHs	X
Customer Remarks / Special Conditions / Possible Hazards:															
Type of Ice Used: <input checked="" type="radio"/> Blue <input type="radio"/> Dry <input type="radio"/> None				SHORT HOLDS PRESENT (<72 hours): <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A						LAB Sample Temperature: Temp Blank Rece Therm ID#: _____ Cooler 1 Temp U Cooler 1 Therm Cooler 1 Correc Comments: _____					
Packing Material Used: _____				Lab Tracking #: _____											
Radchem sample(s) screened (<500 cpm): <input checked="" type="radio"/> N <input type="radio"/> NA				Samples received via: FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> Client <input type="checkbox"/> Courier <input type="checkbox"/> Pace Courier											
Relinquished by/Company: (Signature) <i>Alex Slorby</i>		Date/Time: <i>5/10/22 1500</i>		Received by/Company: (Signature) <i>RJ</i>		Date/Time: <i>5/11/22 1500</i>		Date/Time: <i>5/12/22 1500</i>		A060 <i>PRA1</i>					
Relinquished by/Company: (Signature) <i>DR</i>		Date/Time: <i>5/11/22 1700</i>		Received by/Company: (Signature) <i>AMM</i>		Date/Time: <i>5/12/22 1700</i>		Date/Time: <i>5/12/22 1700</i>		Accumulation: Template: _____					
Trip Blank Re HCl Me															



# ANALYTICAL REPORT

August 12, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1516270  
Samples Received: 07/19/2022  
Project Number:  
Description: Federal 1-30 P&A  
Site: FEDERAL 1-30  
Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

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](http://www.pacenational.com)

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# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time
			Andrew Smith	07/13/22 08:50	07/19/22 10:15

220713-FED\_1-30MH@1' L1516270-01 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:42	08/01/22 17:42	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 08:55	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1898105	1	07/20/22 13:16	07/20/22 14:50	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1898401	1	07/28/22 17:04	07/30/22 00:11	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:05	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1898410	5	07/28/22 17:08	07/30/22 03:18	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897815	1	07/19/22 19:30	07/22/22 04:45	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899141	1	07/19/22 19:30	07/22/22 12:38	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1900464	1	07/25/22 17:39	07/26/22 21:13	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1900466	1	07/26/22 04:51	07/27/22 00:21	AMM	Mt. Juliet, TN

220713-FED\_1-30PJ@1' L1516270-02 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:45	08/01/22 17:45	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1898105	1	07/20/22 13:16	07/20/22 14:50	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1898401	1	07/28/22 17:04	07/29/22 22:59	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:08	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1898410	5	07/28/22 17:08	07/30/22 01:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897815	1	07/19/22 19:30	07/22/22 05:20	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899141	1	07/19/22 19:30	07/22/22 12:58	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1900464	1	07/25/22 17:39	07/26/22 19:54	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1900466	1	07/26/22 04:51	07/27/22 00:39	AMM	Mt. Juliet, TN

220713-FED\_1-30WH@6' L1516270-03 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:47	08/01/22 17:47	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:05	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1898105	1	07/20/22 13:16	07/20/22 14:50	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1898413	1	07/25/22 15:54	07/26/22 10:48	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:11	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1898419	5	07/25/22 16:15	07/26/22 01:08	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897815	1	07/19/22 19:30	07/22/22 05:42	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899141	1	07/19/22 19:30	07/22/22 13:17	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1900464	1	07/25/22 17:39	07/26/22 21:26	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1900466	1	07/26/22 04:51	07/27/22 00:57	AMM	Mt. Juliet, TN

220713-FED\_1-30DEHY@1' L1516270-04 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:50	08/01/22 17:50	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:10	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1898105	1	07/20/22 13:16	07/20/22 14:50	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1898413	1	07/25/22 15:54	07/26/22 10:51	CCE	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

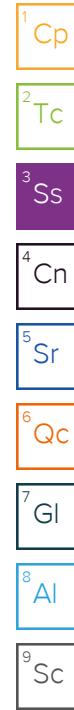
7 Gl

8 Al

9 Sc

# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
			Andrew Smith	07/13/22 16:10	07/19/22 10:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1898419	5	07/25/22 16:15	07/26/22 01:12	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897815	1	07/19/22 19:30	07/22/22 06:04	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899141	1	07/19/22 19:30	07/22/22 13:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1900464	1	07/25/22 17:39	07/26/22 20:07	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1900466	1	07/26/22 04:51	07/27/22 01:15	AMM	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
			Andrew Smith	07/13/22 16:15	07/19/22 10:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:53	08/01/22 17:53	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:15	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1898105	1	07/20/22 13:16	07/20/22 14:50	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1905586	1	08/04/22 14:06	08/05/22 14:30	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1905637	5	08/04/22 13:53	08/05/22 13:53	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897815	1	07/19/22 19:30	07/22/22 06:25	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899168	1	07/19/22 19:30	07/22/22 09:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1900464	1	07/25/22 17:39	07/26/22 20:20	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1900466	1	07/26/22 04:51	07/27/22 01:32	AMM	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	0.261		1	08/01/2022 17:42	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.565	J	0.255	1.00	1	08/12/2022 08:55	WG1904736

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.26	T8	1	07/20/2022 14:50	WG1898105

<sup>3</sup> Ss

## Sample Narrative:

L1516270-01 WG1898105: 8.26 at 25.3C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	262		10.0	1	07/31/2022 09:54	WG1901909

<sup>5</sup> Sr

## Sample Narrative:

L1516270-01 WG1901909: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	226		0.0852	0.500	1	07/30/2022 00:11	WG1898401
Cadmium	0.187	J	0.0471	0.500	1	07/30/2022 00:11	WG1898401
Copper	36.8		0.400	2.00	1	07/30/2022 00:11	WG1898401
Lead	11.9		0.208	0.500	1	07/30/2022 00:11	WG1898401
Nickel	21.8		0.132	2.00	1	07/30/2022 00:11	WG1898401
Selenium	U		0.764	2.00	1	07/30/2022 00:11	WG1898401
Silver	U		0.127	1.00	1	07/30/2022 00:11	WG1898401
Zinc	78.9		0.832	5.00	1	07/30/2022 00:11	WG1898401

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.551		0.0167	0.200	1	08/05/2022 00:05	WG1903564

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	2.11		0.100	1.00	5	07/30/2022 03:18	WG1898410

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0455	J	0.0217	0.100	1	07/22/2022 04:45	WG1897815
(S) a,a,a-Trifluorotoluene(FID)	111			77.0-120		07/22/2022 04:45	WG1897815

## 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	07/22/2022 12:38	<a href="#">WG1899141</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 12:38	<a href="#">WG1899141</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 12:38	<a href="#">WG1899141</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 12:38	<a href="#">WG1899141</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 12:38	<a href="#">WG1899141</a>
1,3,5-Trimethylbenzene	0.00200	J	0.00200	0.00500	1	07/22/2022 12:38	<a href="#">WG1899141</a>
(S) Toluene-d8	104			75.0-131		07/22/2022 12:38	<a href="#">WG1899141</a>
(S) 4-Bromofluorobenzene	102			67.0-138		07/22/2022 12:38	<a href="#">WG1899141</a>
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		07/22/2022 12:38	<a href="#">WG1899141</a>

## 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	7.41		1.61	4.00	1	07/26/2022 21:13	<a href="#">WG1900464</a>
C28-C36 Motor Oil Range	18.0		0.274	4.00	1	07/26/2022 21:13	<a href="#">WG1900464</a>
(S) o-Terphenyl	63.1			18.0-148		07/26/2022 21:13	<a href="#">WG1900464</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 00:21	<a href="#">WG1900466</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 00:21	<a href="#">WG1900466</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 00:21	<a href="#">WG1900466</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 00:21	<a href="#">WG1900466</a>
(S) p-Terphenyl-d14	75.5			23.0-120		07/27/2022 00:21	<a href="#">WG1900466</a>
(S) Nitrobenzene-d5	62.8			14.0-149		07/27/2022 00:21	<a href="#">WG1900466</a>
(S) 2-Fluorobiphenyl	70.4			34.0-125		07/27/2022 00:21	<a href="#">WG1900466</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	41.8		1	08/01/2022 17:45	WG1902326

<sup>1</sup>Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1898105

## Sample Narrative:

L1516270-02 WG1898105: 8.12 at 24.8C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

## Sample Narrative:

L1516270-02 WG1901909: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	776	V	0.0852	0.500	1	07/29/2022 22:59	WG1898401
Cadmium	0.438	J	0.0471	0.500	1	07/29/2022 22:59	WG1898401
Copper	27.2		0.400	2.00	1	07/29/2022 22:59	WG1898401
Lead	28.0		0.208	0.500	1	07/29/2022 22:59	WG1898401
Nickel	17.2		0.132	2.00	1	07/29/2022 22:59	WG1898401
Selenium	U		0.764	2.00	1	07/29/2022 22:59	WG1898401
Silver	U		0.127	1.00	1	07/29/2022 22:59	WG1898401
Zinc	101		0.832	5.00	1	07/29/2022 22:59	WG1898401

<sup>1</sup>Cp

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>2</sup>Tc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1898410

<sup>3</sup>Ss

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0678	J	0.0217	0.100	1	07/22/2022 05:20	WG1897815
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		07/22/2022 05:20	WG1897815

<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>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	07/22/2022 12:58	<a href="#">WG1899141</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 12:58	<a href="#">WG1899141</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 12:58	<a href="#">WG1899141</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 12:58	<a href="#">WG1899141</a>
1,2,4-Trimethylbenzene	0.00703		0.00158	0.00500	1	07/22/2022 12:58	<a href="#">WG1899141</a>
1,3,5-Trimethylbenzene	0.0143		0.00200	0.00500	1	07/22/2022 12:58	<a href="#">WG1899141</a>
(S) Toluene-d8	104			75.0-131		07/22/2022 12:58	<a href="#">WG1899141</a>
(S) 4-Bromofluorobenzene	103			67.0-138		07/22/2022 12:58	<a href="#">WG1899141</a>
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		07/22/2022 12:58	<a href="#">WG1899141</a>

## 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	2.19	J	1.61	4.00	1	07/26/2022 19:54	<a href="#">WG1900464</a>
C28-C36 Motor Oil Range	3.54	J	0.274	4.00	1	07/26/2022 19:54	<a href="#">WG1900464</a>
(S) o-Terphenyl	57.5			18.0-148		07/26/2022 19:54	<a href="#">WG1900464</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 00:39	<a href="#">WG1900466</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 00:39	<a href="#">WG1900466</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 00:39	<a href="#">WG1900466</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 00:39	<a href="#">WG1900466</a>
(S) p-Terphenyl-d14	76.1			23.0-120		07/27/2022 00:39	<a href="#">WG1900466</a>
(S) Nitrobenzene-d5	68.7			14.0-149		07/27/2022 00:39	<a href="#">WG1900466</a>
(S) 2-Fluorobiphenyl	74.4			34.0-125		07/27/2022 00:39	<a href="#">WG1900466</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	24.5		1	08/01/2022 17:47	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1898105

## Sample Narrative:

L1516270-03 WG1898105: 7.84 at 25C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

## Sample Narrative:

L1516270-03 WG1901909: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	108		0.0852	0.500	1	07/26/2022 10:48	WG1898413
Cadmium	0.470	J	0.0471	0.500	1	07/26/2022 10:48	WG1898413
Copper	30.2		0.400	2.00	1	07/26/2022 10:48	WG1898413
Lead	14.4		0.208	0.500	1	07/26/2022 10:48	WG1898413
Nickel	17.6		0.132	2.00	1	07/26/2022 10:48	WG1898413
Selenium	U		0.764	2.00	1	07/26/2022 10:48	WG1898413
Silver	U		0.127	1.00	1	07/26/2022 10:48	WG1898413
Zinc	71.6		0.832	5.00	1	07/26/2022 10:48	WG1898413

<sup>1</sup> Cp

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1898419

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.224		0.0217	0.100	1	07/22/2022 05:42	WG1897815
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-120		07/22/2022 05:42	WG1897815

<sup>1</sup> Cp

## 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	07/22/2022 13:17	<a href="#">WG1899141</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 13:17	<a href="#">WG1899141</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 13:17	<a href="#">WG1899141</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 13:17	<a href="#">WG1899141</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 13:17	<a href="#">WG1899141</a>
1,3,5-Trimethylbenzene	0.00361	J	0.00200	0.00500	1	07/22/2022 13:17	<a href="#">WG1899141</a>
(S) Toluene-d8	107			75.0-131		07/22/2022 13:17	<a href="#">WG1899141</a>
(S) 4-Bromofluorobenzene	105			67.0-138		07/22/2022 13:17	<a href="#">WG1899141</a>
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		07/22/2022 13:17	<a href="#">WG1899141</a>

## 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	32.5		1.61	4.00	1	07/26/2022 21:26	<a href="#">WG1900464</a>
C28-C36 Motor Oil Range	56.4		0.274	4.00	1	07/26/2022 21:26	<a href="#">WG1900464</a>
(S) o-Terphenyl	49.8			18.0-148		07/26/2022 21:26	<a href="#">WG1900464</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 00:57	<a href="#">WG1900466</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 00:57	<a href="#">WG1900466</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 00:57	<a href="#">WG1900466</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 00:57	<a href="#">WG1900466</a>
(S) p-Terphenyl-d14	52.7			23.0-120		07/27/2022 00:57	<a href="#">WG1900466</a>
(S) Nitrobenzene-d5	62.8			14.0-149		07/27/2022 00:57	<a href="#">WG1900466</a>
(S) 2-Fluorobiphenyl	44.8			34.0-125		07/27/2022 00:57	<a href="#">WG1900466</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	3.04		1	08/01/2022 17:50	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	U		0.255	1.00	1	08/12/2022 09:10	WG1904736

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	7.99	T8	1	07/20/2022 14:50	WG1898105

<sup>3</sup> Ss

## Sample Narrative:

L1516270-04 WG1898105: 7.99 at 24.9C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	933		10.0	1	07/31/2022 09:54	WG1901909

<sup>5</sup> Sr

## Sample Narrative:

L1516270-04 WG1901909: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	223		0.0852	0.500	1	07/26/2022 10:51	WG1898413
Cadmium	0.579		0.0471	0.500	1	07/26/2022 10:51	WG1898413
Copper	35.1		0.400	2.00	1	07/26/2022 10:51	WG1898413
Lead	12.8		0.208	0.500	1	07/26/2022 10:51	WG1898413
Nickel	22.3		0.132	2.00	1	07/26/2022 10:51	WG1898413
Selenium	U		0.764	2.00	1	07/26/2022 10:51	WG1898413
Silver	U		0.127	1.00	1	07/26/2022 10:51	WG1898413
Zinc	84.7		0.832	5.00	1	07/26/2022 10:51	WG1898413

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	1.42		0.0167	0.200	1	08/05/2022 00:14	WG1903564

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	3.47		0.100	1.00	5	07/26/2022 01:12	WG1898419

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	07/22/2022 06:04	WG1897815
(S) a,a,a-Trifluorotoluene(FID)	111			77.0-120		07/22/2022 06:04	WG1897815

## 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	07/22/2022 13:37	<a href="#">WG1899141</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 13:37	<a href="#">WG1899141</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 13:37	<a href="#">WG1899141</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 13:37	<a href="#">WG1899141</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 13:37	<a href="#">WG1899141</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 13:37	<a href="#">WG1899141</a>
(S) Toluene-d8	104			75.0-131		07/22/2022 13:37	<a href="#">WG1899141</a>
(S) 4-Bromofluorobenzene	102			67.0-138		07/22/2022 13:37	<a href="#">WG1899141</a>
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		07/22/2022 13:37	<a href="#">WG1899141</a>

## 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	2.68	J	1.61	4.00	1	07/26/2022 20:07	<a href="#">WG1900464</a>
C28-C36 Motor Oil Range	3.98	J	0.274	4.00	1	07/26/2022 20:07	<a href="#">WG1900464</a>
(S) o-Terphenyl	65.5			18.0-148		07/26/2022 20:07	<a href="#">WG1900464</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 01:15	<a href="#">WG1900466</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 01:15	<a href="#">WG1900466</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 01:15	<a href="#">WG1900466</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 01:15	<a href="#">WG1900466</a>
(S) p-Terphenyl-d14	68.7			23.0-120		07/27/2022 01:15	<a href="#">WG1900466</a>
(S) Nitrobenzene-d5	60.7			14.0-149		07/27/2022 01:15	<a href="#">WG1900466</a>
(S) 2-Fluorobiphenyl	65.9			34.0-125		07/27/2022 01:15	<a href="#">WG1900466</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	19.3		1	08/01/2022 17:53	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1898105

## Sample Narrative:

L1516270-05 WG1898105: 8.73 at 24.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

## Sample Narrative:

L1516270-05 WG1901909: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	156		0.0852	0.500	1	08/05/2022 14:30	WG1905586
Cadmium	0.483	J	0.0471	0.500	1	08/05/2022 14:30	WG1905586
Copper	26.0		0.400	2.00	1	08/05/2022 14:30	WG1905586
Lead	18.1		0.208	0.500	1	08/05/2022 14:30	WG1905586
Nickel	17.0		0.132	2.00	1	08/05/2022 14:30	WG1905586
Selenium	U		0.764	2.00	1	08/05/2022 14:30	WG1905586
Silver	U		0.127	1.00	1	08/05/2022 14:30	WG1905586
Zinc	64.3		0.832	5.00	1	08/05/2022 14:30	WG1905586

<sup>1</sup> Cp

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1905637

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	07/22/2022 06:25	WG1897815
(S) a,a,a-Trifluorotoluene(FID)	114			77.0-120		07/22/2022 06:25	WG1897815

<sup>1</sup> Cp

## 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	07/22/2022 09:46	<a href="#">WG1899168</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 09:46	<a href="#">WG1899168</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 09:46	<a href="#">WG1899168</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 09:46	<a href="#">WG1899168</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 09:46	<a href="#">WG1899168</a>
1,3,5-Trimethylbenzene	0.00213	J	0.00200	0.00500	1	07/22/2022 09:46	<a href="#">WG1899168</a>
(S) Toluene-d8	108			75.0-131		07/22/2022 09:46	<a href="#">WG1899168</a>
(S) 4-Bromofluorobenzene	103			67.0-138		07/22/2022 09:46	<a href="#">WG1899168</a>
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		07/22/2022 09:46	<a href="#">WG1899168</a>

## 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	27.1		1.61	4.00	1	07/26/2022 20:20	<a href="#">WG1900464</a>
C28-C36 Motor Oil Range	15.9		0.274	4.00	1	07/26/2022 20:20	<a href="#">WG1900464</a>
(S) o-Terphenyl	55.4			18.0-148		07/26/2022 20:20	<a href="#">WG1900464</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 01:32	<a href="#">WG1900466</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 01:32	<a href="#">WG1900466</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 01:32	<a href="#">WG1900466</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 01:32	<a href="#">WG1900466</a>
(S) p-Terphenyl-d14	74.9			23.0-120		07/27/2022 01:32	<a href="#">WG1900466</a>
(S) Nitrobenzene-d5	69.7			14.0-149		07/27/2022 01:32	<a href="#">WG1900466</a>
(S) 2-Fluorobiphenyl	74.3			34.0-125		07/27/2022 01:32	<a href="#">WG1900466</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

WG1904736

Wet Chemistry by Method 7199

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## Method Blank (MB)

(MB) R3825663-1 08/12/22 07:43

Analyst	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	U		0.255	1.00

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

## L1514822-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1514822-03 08/12/22 08:29 • (DUP) R3825663-7 08/12/22 08:34

Analyst	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	1.15	1.17	1	1.95		20

## L1516275-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1516275-03 08/12/22 09:31 • (DUP) R3825663-8 08/12/22 09:36

Analyst	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	U	U	1	0.000		20

## Laboratory Control Sample (LCS)

(LCS) R3825663-2 08/12/22 07:49

Analyst	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	10.5	105	80.0-120	

## L1514822-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-3 08/12/22 08:03 • (MSD) R3825663-4 08/12/22 08:08

Analyst	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 %
Hexavalent Chromium	20.0	1.16	20.8	20.6	98.2	97.1	1	75.0-125			1.04	20

## L1514822-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-6 08/12/22 08:18

Analyst	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	643	1.16	798	124	50	75.0-125	

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

SDG:

DATE/TIME:

L1516270

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## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## L1516270-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1516270-02 07/20/22 14:50 • (DUP) R3817299-2 07/20/22 14:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	8.12	8.11	1	0.123		1

## Sample Narrative:

OS: 8.12 at 24.8C  
 DUP: 8.11 at 24.9C

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

## L1516270-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1516270-05 07/20/22 14:50 • (DUP) R3817299-3 07/20/22 14:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	8.73	8.75	1	0.229		1

## Sample Narrative:

OS: 8.73 at 24.7C  
 DUP: 8.75 at 24.9C

## Laboratory Control Sample (LCS)

(LCS) R3817299-1 07/20/22 14:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.98	99.8	99.0-101	

## Sample Narrative:

LCS: 9.98 at 24.4C

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## Method Blank (MB)

(MB) R3821000-1 07/31/22 09:54

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

## Sample Narrative:

BLANK: at 25C

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

## L1516250-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1516250-16 07/31/22 09:54 • (DUP) R3821000-3 07/31/22 09:54

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	2250	2440	1	8.01		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1516291-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1516291-05 07/31/22 09:54 • (DUP) R3821000-4 07/31/22 09:54

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	238	245	1	2.98		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3821000-2 07/31/22 09:54

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	286	271	94.7	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

L1516270-01,02

## Method Blank (MB)

(MB) R3820927-1 07/29/22 22:54

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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3820927-2 07/29/22 22:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	104	104	80.0-120	
Cadmium	100	99.1	99.1	80.0-120	
Copper	100	102	102	80.0-120	
Lead	100	99.8	99.8	80.0-120	
Nickel	100	99.8	99.8	80.0-120	
Selenium	100	100	100	80.0-120	
Silver	20.0	19.3	96.7	80.0-120	
Zinc	100	99.7	99.7	80.0-120	

## L1516270-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516270-02 07/29/22 22:59 • (MS) R3820927-5 07/29/22 23:07 • (MSD) R3820927-6 07/29/22 23:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	100	776	1020	1080	248	303	1	75.0-125	V	V	5.20
Cadmium	100	0.438	100	105	99.6	104	1	75.0-125			4.72
Copper	100	27.2	130	135	103	108	1	75.0-125			3.84
Lead	100	28.0	119	123	91.1	94.8	1	75.0-125			3.02
Nickel	100	17.2	113	118	95.4	101	1	75.0-125			4.64
Selenium	100	U	101	106	101	106	1	75.0-125			5.26
Silver	20.0	U	19.6	20.6	98.1	103	1	75.0-125			5.00
Zinc	100	101	182	191	81.2	90.2	1	75.0-125			4.82

## QUALITY CONTROL SUMMARY

L1516270-03,04

## Method Blank (MB)

(MB) R3819281-1 07/26/22 09:29

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3819281-2 07/26/22 09:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	99.0	99.0	80.0-120	
Cadmium	100	94.4	94.4	80.0-120	
Copper	100	96.8	96.8	80.0-120	
Lead	100	94.7	94.7	80.0-120	
Nickel	100	95.1	95.1	80.0-120	
Selenium	100	94.7	94.7	80.0-120	
Silver	20.0	18.3	91.5	80.0-120	
Zinc	100	93.8	93.8	80.0-120	

## L1516261-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516261-06 07/26/22 09:35 • (MS) R3819281-4 07/26/22 09:43 • (MSD) R3819281-5 07/26/22 09:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	99.1	203	205	104	106	1	75.0-125		1.34	20
Cadmium	100	0.660	107	108	107	108	1	75.0-125		1.13	20
Copper	100	42.9	154	155	111	112	1	75.0-125		0.305	20
Lead	100	21.3	121	123	100	102	1	75.0-125		1.46	20
Nickel	100	26.4	127	129	100	102	1	75.0-125		1.51	20
Selenium	100	U	105	107	105	107	1	75.0-125		1.42	20
Silver	20.0	U	21.0	21.3	105	106	1	75.0-125		1.26	20
Zinc	100	100	199	201	99.0	101	1	75.0-125		1.17	20

## QUALITY CONTROL SUMMARY

L1516270-05

## Method Blank (MB)

(MB) R3823273-1 08/05/22 14:12

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3823273-2 08/05/22 14:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	101	101	80.0-120	
Cadmium	100	96.6	96.6	80.0-120	
Copper	100	101	101	80.0-120	
Lead	100	97.1	97.1	80.0-120	
Nickel	100	98.9	98.9	80.0-120	
Selenium	100	99.6	99.6	80.0-120	
Silver	20.0	18.0	90.2	80.0-120	
Zinc	100	97.2	97.2	80.0-120	

## L1521215-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1521215-01 08/05/22 14:17 • (MS) R3823273-5 08/05/22 14:25 • (MSD) R3823273-6 08/05/22 14:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	80.7	181	183	101	102	1	75.0-125		0.951	20
Cadmium	100	0.262	96.0	96.2	95.8	95.9	1	75.0-125		0.156	20
Copper	100	14.3	116	117	102	102	1	75.0-125		0.637	20
Lead	100	15.8	114	115	98.7	99.6	1	75.0-125		0.750	20
Nickel	100	13.0	114	115	101	102	1	75.0-125		0.423	20
Selenium	100	U	99.2	99.7	99.2	99.7	1	75.0-125		0.490	20
Silver	20.0	U	18.1	18.2	90.6	91.1	1	75.0-125		0.623	20
Zinc	100	51.6	145	144	93.1	92.2	1	75.0-125		0.643	20

WG1903564

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

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## Method Blank (MB)

(MB) R3822918-1 08/04/22 23:18

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

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

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

(LCS) R3822918-2 08/04/22 23:20 • (LCSD) R3822918-3 08/04/22 23:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.04	1.01	104	101	80.0-120			2.88	20

WG1898410

Metals (ICPMS) by Method 6020

## QUALITY CONTROL SUMMARY

L1516270-01,02

## Method Blank (MB)

(MB) R3820906-1 07/30/22 01:42

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

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

## Laboratory Control Sample (LCS)

(LCS) R3820906-2 07/30/22 01:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	92.6	92.6	80.0-120	

## L1516270-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516270-02 07/30/22 01:49 • (MS) R3820906-5 07/30/22 01:58 • (MSD) R3820906-6 07/30/22 02:02

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 %
Arsenic	100	5.25	97.4	92.6	92.2	87.4	5	75.0-125			5.05	20

## QUALITY CONTROL SUMMARY

L1516270-03,04

## Method Blank (MB)

(MB) R3819057-1 07/25/22 23:37

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

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

## Laboratory Control Sample (LCS)

(LCS) R3819057-2 07/25/22 23:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	87.1	87.1	80.0-120	

## L1516261-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516261-06 07/25/22 23:43 • (MS) R3819057-5 07/25/22 23:53 • (MSD) R3819057-6 07/25/22 23:56

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 %
Arsenic	100	5.66	95.2	99.6	89.6	93.9	5	75.0-125			4.50	20

## QUALITY CONTROL SUMMARY

L1516270-05

## Method Blank (MB)

(MB) R3823127-1 08/05/22 13:30

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

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

## Laboratory Control Sample (LCS)

(LCS) R3823127-2 08/05/22 13:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	85.9	85.9	80.0-120	

## L1521215-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1521215-01 08/05/22 13:37 • (MS) R3823127-5 08/05/22 13:47 • (MSD) R3823127-6 08/05/22 13:50

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 %
Arsenic	100	6.09	91.4	87.6	85.3	81.5	5	75.0-125			4.22	20

WG1897815

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

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## Method Blank (MB)

(MB) R3819762-2 07/21/22 21:07

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) <i>a,a,a-Trifluorotoluene(FID)</i>	112			77.0-120

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

## Laboratory Control Sample (LCS)

(LCS) R3819762-1 07/21/22 19:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.27	114	72.0-127	
(S) <i>a,a,a-Trifluorotoluene(FID)</i>		112		77.0-120	

WG1899141

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

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04](#)

## Method Blank (MB)

(MB) R3819568-3 07/22/22 07:05

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	102		67.0-138	
(S) 1,2-Dichloroethane-d4	98.1		70.0-130	

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

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

(LCS) R3819568-1 07/22/22 05:47 • (LCSD) R3819568-2 07/22/22 06:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	0.125	0.109	0.108	87.2	86.4	70.0-123			0.922	20
Toluene	0.125	0.110	0.113	88.0	90.4	75.0-121			2.69	20
Ethylbenzene	0.125	0.115	0.116	92.0	92.8	74.0-126			0.866	20
Xylenes, Total	0.375	0.341	0.337	90.9	89.9	72.0-127			1.18	20
1,2,4-Trimethylbenzene	0.125	0.123	0.126	98.4	101	70.0-126			2.41	20
1,3,5-Trimethylbenzene	0.125	0.115	0.118	92.0	94.4	73.0-127			2.58	20
(S) Toluene-d8			101	102		75.0-131				
(S) 4-Bromofluorobenzene			99.0	100		67.0-138				
(S) 1,2-Dichloroethane-d4			98.7	99.1		70.0-130				

ACCOUNT:

Confluence Compliance Companies - CO

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

## QUALITY CONTROL SUMMARY

[L1516270-05](#)

## Method Blank (MB)

(MB) R3819598-3 07/22/22 08:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	<sup>1</sup> Cp
Benzene	U		0.000467	0.00100	<sup>2</sup> Tc
Toluene	U		0.00130	0.00500	<sup>3</sup> Ss
Ethylbenzene	U		0.000737	0.00250	<sup>4</sup> Cn
Xylenes, Total	U		0.000880	0.00650	<sup>5</sup> Sr
1,2,4-Trimethylbenzene	U		0.00158	0.00500	<sup>6</sup> Qc
1,3,5-Trimethylbenzene	U		0.00200	0.00500	<sup>7</sup> Gl
(S) Toluene-d8	108		75.0-131		<sup>8</sup> Al
(S) 4-Bromofluorobenzene	104		67.0-138		<sup>9</sup> Sc
(S) 1,2-Dichloroethane-d4	89.4		70.0-130		

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

(LCS) R3819598-1 07/22/22 07:14 • (LCSD) R3819598-2 07/22/22 07:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	0.125	0.121	0.137	96.8	110	70.0-123			12.4	20
Toluene	0.125	0.130	0.144	104	115	75.0-121			10.2	20
Ethylbenzene	0.125	0.131	0.143	105	114	74.0-126			8.76	20
Xylenes, Total	0.375	0.406	0.452	108	121	72.0-127			10.7	20
1,2,4-Trimethylbenzene	0.125	0.134	0.143	107	114	70.0-126			6.50	20
1,3,5-Trimethylbenzene	0.125	0.126	0.137	101	110	73.0-127			8.37	20
(S) Toluene-d8			104	105		75.0-131				
(S) 4-Bromofluorobenzene			105	105		67.0-138				
(S) 1,2-Dichloroethane-d4			97.9	98.6		70.0-130				

ACCOUNT:

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## Method Blank (MB)

(MB) R3819157-1 07/26/22 04:06

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	64.4		18.0-148	

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

## Laboratory Control Sample (LCS)

(LCS) R3819157-2 07/26/22 04:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
C10-C28 Diesel Range	50.0	36.3	72.6	50.0-150	
(S) o-Terphenyl		86.3	18.0-148		

## L1516296-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516296-02 07/26/22 21:39 • (MS) R3819157-3 07/26/22 21:52 • (MSD) R3819157-4 07/26/22 22:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C28 Diesel Range	47.0	25.8	40.7	44.5	31.7	38.3	1	50.0-150	J6	8.92	20
(S) o-Terphenyl				57.0	66.0		18.0-148				

## Method Blank (MB)

(MB) R3819686-2 07/26/22 19:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	<sup>1</sup> Cp
Anthracene	U		0.00230	0.00600	
Acenaphthene	U		0.00209	0.00600	
Acenaphthylene	U		0.00216	0.00600	
Benzo(a)anthracene	U		0.00173	0.00600	
Benzo(a)pyrene	U		0.00179	0.00600	
Benzo(b)fluoranthene	U		0.00153	0.00600	
Benzo(g,h,i)perylene	U		0.00177	0.00600	
Benzo(k)fluoranthene	U		0.00215	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	
Naphthalene	U		0.00408	0.0200	
Phenanthrene	U		0.00231	0.00600	
Pyrene	U		0.00200	0.00600	
1-Methylnaphthalene	U		0.00449	0.0200	
2-Methylnaphthalene	U		0.00427	0.0200	
2-Chloronaphthalene	U		0.00466	0.0200	
(S) p-Terphenyl-d14	73.6		23.0-120		
(S) Nitrobenzene-d5	63.2		14.0-149		
(S) 2-Fluorobiphenyl	69.5		34.0-125		

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

## Laboratory Control Sample (LCS)

(LCS) R3819686-1 07/26/22 19:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0594	74.3	50.0-126	
Acenaphthene	0.0800	0.0573	71.6	50.0-120	
Acenaphthylene	0.0800	0.0580	72.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0601	75.1	45.0-120	
Benzo(a)pyrene	0.0800	0.0610	76.3	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0582	72.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0594	74.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0558	69.8	49.0-125	
Chrysene	0.0800	0.0609	76.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0620	77.5	47.0-125	
Fluoranthene	0.0800	0.0614	76.8	49.0-129	

## QUALITY CONTROL SUMMARY

[L1516270-01,02,03,04,05](#)

## Laboratory Control Sample (LCS)

(LCS) R3819686-1 07/26/22 19:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0588	73.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0657	82.1	46.0-125	
Naphthalene	0.0800	0.0554	69.3	50.0-120	
Phenanthrene	0.0800	0.0577	72.1	47.0-120	
Pyrene	0.0800	0.0612	76.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0578	72.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0584	73.0	50.0-120	
2-Chloronaphthalene	0.0800	0.0557	69.6	50.0-120	
(S) p-Terphenyl-d14		77.1	23.0-120		
(S) Nitrobenzene-d5		67.5	14.0-149		
(S) 2-Fluorobiphenyl		72.7	34.0-125		

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

## L1516104-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516104-01 07/26/22 21:23 • (MS) R3819686-3 07/26/22 21:40 • (MSD) R3819686-4 07/26/22 21:58

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0756	U	0.0448	0.0487	59.3	64.8	1	10.0-145		8.34	30
Acenaphthene	0.0756	U	0.0446	0.0487	59.0	64.8	1	14.0-127		8.79	27
Acenaphthylene	0.0756	U	0.0441	0.0476	58.3	63.3	1	21.0-124		7.63	25
Benzo(a)anthracene	0.0756	U	0.0444	0.0474	58.7	63.0	1	10.0-139		6.54	30
Benzo(a)pyrene	0.0756	U	0.0485	0.0517	64.2	68.8	1	10.0-141		6.39	31
Benzo(b)fluoranthene	0.0756	U	0.0458	0.0501	60.6	66.6	1	10.0-140		8.97	36
Benzo(g,h,i)perylene	0.0756	U	0.0480	0.0518	63.5	68.9	1	10.0-140		7.62	33
Benzo(k)fluoranthene	0.0756	U	0.0441	0.0468	58.3	62.2	1	10.0-137		5.94	31
Chrysene	0.0756	U	0.0476	0.0503	63.0	66.9	1	10.0-145		5.52	30
Dibenz(a,h)anthracene	0.0756	U	0.0475	0.0508	62.8	67.6	1	10.0-132		6.71	31
Fluoranthene	0.0756	U	0.0469	0.0513	62.0	68.2	1	10.0-153		8.96	33
Fluorene	0.0756	U	0.0460	0.0502	60.8	66.8	1	11.0-130		8.73	29
Indeno(1,2,3-cd)pyrene	0.0756	U	0.0486	0.0528	64.3	70.2	1	10.0-137		8.28	32
Naphthalene	0.0756	U	0.0403	0.0446	53.3	59.3	1	10.0-135		10.1	27
Phenanthrene	0.0756	U	0.0454	0.0489	60.1	65.0	1	10.0-144		7.42	31
Pyrene	0.0756	U	0.0499	0.0535	66.0	71.1	1	10.0-148		6.96	35
1-Methylnaphthalene	0.0756	U	0.0432	0.0480	57.1	63.8	1	10.0-142		10.5	28
2-Methylnaphthalene	0.0756	U	0.0437	0.0490	57.8	65.2	1	10.0-137		11.4	28
2-Chloronaphthalene	0.0756	U	0.0427	0.0472	56.5	62.8	1	29.0-120		10.0	24
(S) p-Terphenyl-d14				66.2	68.4		23.0-120				
(S) Nitrobenzene-d5				56.9	61.9		14.0-149				
(S) 2-Fluorobiphenyl				62.3	64.9		34.0-125				

# 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.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
(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.	<sup>6</sup> Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>7</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>8</sup> Al
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.	<sup>9</sup> Sc
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.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Confluence Compliance Companies, LLC.		Billing Information: Info on file												
Address: Info on file														
Report To: Chris McKisson		Email To: info on file												
Copy To: Chris McKisson, remediation@confluence-cc.com		Site Collection Info/Address:												
Customer Project Name/Number: Federal 1-30 P&A		State: CO / County/City: Rio Blanco	Time Zone Collected: [ ] PT [X] MT [ ] CT [ ] ET											
Phone:	Site/Facility ID #: Federal 1-30			Compliance Monitoring? [ ] Yes [X] No		Container Type: Plastic (P) or Glass (G)								
Email:				DW PWS ID #:										
Collected By (print): Andrew Smith	Purchase Order #: _____ Quote #: _____			DW Location Code: _____										
Collected By (signature):	Turnaround Date Required: RUSH			Immediately Packed on Ice: [X] Yes [ ] No										
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day			Field Filtered (if applicable): [ ] Yes [ ] No										
Analysis: _____														
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)														
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns						
			Date	Time	Date	Time								
220713-Fed_1-30-MH@1'	SL	G	7/13/2022	0850			2	G	X	X	X	X	X	
220713-Fed_1-30-PJ@1'	SL	G	7/13/2022	0855			2	G	X	X	X	X	X	
220713-Fed_1-30-WH@6'	SL	G	7/13/2022	0905			2	G	X	X	X	X	X	
220713-Fed_1-30-DEHY@1'	SL	G	7/13/2022	1610			2	G	X	X	X	X	X	
220713-Fed_1-30-SEP@1'	SL	G	7/13/2022	1615			2	G	X	X	X	X	X	
Customer Remarks / Special Conditions / Possible Hazards:			Type of Ice Used: Wet Blue Dry None	SHORT HOLDS PRESENT (<72 hours): Y N N/A				LAB Sample Temperature Info:						
			Packing Material Used: _____					Temp Blank Received: Y N NA Therm ID#: _____						
			Radchem sample(s) screened (<500 cpm): Y N NA					Cooler 1 Temp Upon Receipt: oC Cooler 1 Therm Corr. Factor: oC Cooler 1 Corrected Temp: oC						
Relinquished by/Company: (Signature)			Date/Time: 7/18/22 1145	Received by/Company: (Signature)				Date/Time: _____				Comments: .310-2.3 JAAAG		
Relinquished by/Company: (Signature)			Date/Time: 7/18/22 1320	Received by/Company: (Signature)				Date/Time: _____				Trip Blank Received: Y N NA HCl MeOH TSP Other		
Relinquished by/Company: (Signature)			Date/Time:	Received by/Company: (Signature)				Date/Time: 7/19/22 1015				Non Conformance(s): YES / NO Page: _____ of: _____		

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here							
<b>ALL BOLD OUTLINED AREAS are for LAB USE ONLY</b>							
Container Preservative Type **							
Lab Project Manager: _____							
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____							
Analyses							
Lab Profile/Line: _____							
Lab Sample Receipt Checklist: Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA - Headspace Acceptable Y N NA USDA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: _____ Sample pH Acceptable Y N NA pH Strips: _____ Sulfide Present Y N NA Lead Acetate Strips: _____							
LAB USE ONLY:							
Lab Sample # / Comments: <b>L1516270</b>							
-01							
-02							
-03							
-04							
-05							
F182							
Acnum: _____							
Template: _____							
Prelogin: _____							
PM: _____							
PB: _____							



# ANALYTICAL REPORT

August 12, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1517244

Samples Received: 07/21/2022

Project Number: FEDERAL 1-30

Description: P&A

Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

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](http://www.pacenational.com)

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# SAMPLE SUMMARY

			Collected by Jana Nilsen	Collected date/time 07/19/22 08:58	Received date/time 07/21/22 09:15
<b>CAP_TRENCH_END@6' L1517244-01 Solid</b>					

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902865	1	08/01/22 14:44	08/01/22 14:44	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 10:23	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901308	1	08/03/22 16:43	08/05/22 17:12	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901310	5	08/03/22 16:48	08/05/22 13:09	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 04:04	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 20:37	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 14:56	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901018	1	07/26/22 18:32	07/27/22 14:19	DSH	Mt. Juliet, TN

<b>METER_INLET@6' L1517244-02 Solid</b>			Collected by Jana Nilsen	Collected date/time 07/19/22 09:02	Received date/time 07/21/22 09:15
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902865	1	08/01/22 14:47	08/01/22 14:47	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 10:28	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901308	1	08/03/22 16:43	08/05/22 17:14	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:16	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901310	5	08/03/22 16:48	08/05/22 13:13	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 04:27	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 20:58	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 15:10	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901018	1	07/26/22 18:32	07/27/22 14:37	DSH	Mt. Juliet, TN

<b>METER_OUTLET_DEHY_IN/OUTLET@6' L1517244-03 Solid</b>			Collected by Jana Nilsen	Collected date/time 07/19/22 09:10	Received date/time 07/21/22 09:15
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902865	1	08/01/22 14:50	08/01/22 14:50	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 03:21	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901308	1	08/03/22 16:43	08/05/22 17:23	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:19	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901310	5	08/03/22 16:48	08/05/22 13:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 04:50	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 21:19	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 14:42	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901018	1	07/26/22 18:32	07/27/22 14:55	DSH	Mt. Juliet, TN

<b>SEP_INLET@6' L1517244-04 Solid</b>			Collected by Jana Nilsen	Collected date/time 07/19/22 09:18	Received date/time 07/21/22 09:15
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902865	1	08/01/22 14:53	08/01/22 14:53	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 03:26	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901308	1	08/03/22 16:43	08/05/22 17:25	KMG	Mt. Juliet, TN

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

FEDERAL 1-30

SDG:

L1517244

DATE/TIME:

08/12/22 16:02

PAGE:

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

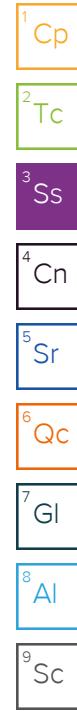
7 Gl

8 Al

9 Sc

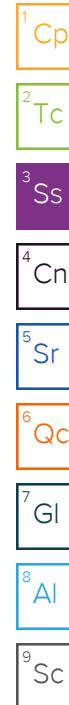
# SAMPLE SUMMARY

			Collected by Jana Nilsen	Collected date/time 07/19/22 09:18	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:22	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901310	5	08/03/22 16:48	08/05/22 13:29	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 05:13	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 21:40	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 15:52	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901018	1	07/26/22 18:32	07/27/22 15:13	DSH	Mt. Juliet, TN
SEP_OUTLET_TO_OIL@5' L1517244-05 Solid			Collected by Jana Nilsen	Collected date/time 07/19/22 09:25	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902871	1	08/02/22 20:05	08/02/22 20:05	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 04:02	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901316	1	08/01/22 17:43	08/03/22 06:19	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:24	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901314	5	08/01/22 17:39	08/02/22 17:40	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 05:35	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 22:01	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 15:38	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901020	1	07/26/22 21:54	07/28/22 02:37	DSH	Mt. Juliet, TN
MID_TRENCH_WH_PJ@4' L1517244-07 Solid			Collected by Jana Nilsen	Collected date/time 07/19/22 09:44	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902871	1	08/02/22 20:08	08/02/22 20:08	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 04:07	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901882	1	07/31/22 00:52	07/31/22 09:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901316	1	08/01/22 17:43	08/03/22 06:22	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901314	5	08/01/22 17:39	08/02/22 17:43	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 05:58	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 22:22	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 16:06	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901020	1	07/26/22 21:54	07/28/22 02:55	DSH	Mt. Juliet, TN
WELL_HEAD_PUMP_JACK@4' L1517244-08 Solid			Collected by Jana Nilsen	Collected date/time 07/19/22 09:50	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902871	1	08/02/22 20:11	08/02/22 20:11	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 04:13	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1901438	1	07/27/22 08:49	07/27/22 10:00	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901316	1	08/01/22 17:43	08/03/22 06:24	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:30	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901314	5	08/01/22 17:39	08/02/22 17:46	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 06:21	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 22:44	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901042	1	07/27/22 06:46	07/27/22 15:24	JAS	Mt. Juliet, TN



# SAMPLE SUMMARY

			Collected by Jana Nilsen	Collected date/time 07/19/22 09:50	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901020	1	07/26/22 21:54	07/28/22 03:12	DSH	Mt. Juliet, TN
<b>N_TRENCH@3' L1517244-09 Solid</b>			Collected by Jana Nilsen	Collected date/time 07/19/22 10:02	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902871	1	08/02/22 20:14	08/02/22 20:14	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 04:18	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899769	1	07/23/22 09:00	07/23/22 11:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901859	1	07/29/22 01:37	07/29/22 07:46	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901316	1	08/01/22 17:43	08/03/22 06:06	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:33	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901314	5	08/01/22 17:39	08/02/22 17:23	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 08:39	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 23:05	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901043	1	07/27/22 07:09	07/27/22 14:02	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901020	1	07/26/22 21:54	07/28/22 04:06	DSH	Mt. Juliet, TN
<b>MID_N_TRENCH@3' L1517244-10 Solid</b>			Collected by Jana Nilsen	Collected date/time 07/19/22 10:06	Received date/time 07/21/22 09:15	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902871	1	08/02/22 20:17	08/02/22 20:17	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1905133	1	08/03/22 17:00	08/04/22 04:23	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899784	1	07/23/22 11:00	07/23/22 13:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901882	1	07/31/22 00:52	07/31/22 09:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1901316	1	08/01/22 17:43	08/03/22 06:33	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903661	1	08/01/22 11:32	08/04/22 21:36	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1901314	5	08/01/22 17:39	08/02/22 17:56	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1899210	1	07/21/22 17:43	07/23/22 09:02	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1899607	1	07/21/22 17:43	07/22/22 23:26	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1901043	1	07/27/22 07:09	07/27/22 14:16	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1901020	1	07/26/22 21:54	07/28/22 04:24	DSH	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	16.5		1	08/01/2022 14:44	WG1902865

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1899784

## Sample Narrative:

L1517244-01 WG1899784: 8.5 at 24.8C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901859

## Sample Narrative:

L1517244-01 WG1901859: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	105		0.0852	0.500	1	08/05/2022 17:12	WG1901308
Cadmium	0.372	J	0.0471	0.500	1	08/05/2022 17:12	WG1901308
Copper	24.6		0.400	2.00	1	08/05/2022 17:12	WG1901308
Lead	15.6		0.208	0.500	1	08/05/2022 17:12	WG1901308
Nickel	16.6		0.132	2.00	1	08/05/2022 17:12	WG1901308
Selenium	U		0.764	2.00	1	08/05/2022 17:12	WG1901308
Silver	U		0.127	1.00	1	08/05/2022 17:12	WG1901308
Zinc	61.9		0.832	5.00	1	08/05/2022 17:12	WG1901308

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903661

<sup>1</sup> Cp

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1901310

<sup>2</sup> Tc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0580	B J	0.0217	0.100	1	07/23/2022 04:04	WG1899210
(S) a,a,a-Trifluorotoluene(FID)	99.2			77.0-120		07/23/2022 04:04	WG1899210

<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> 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	07/22/2022 20:37	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 20:37	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 20:37	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 20:37	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 20:37	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 20:37	<a href="#">WG1899607</a>
(S) Toluene-d8	107			75.0-131		07/22/2022 20:37	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	92.9			67.0-138		07/22/2022 20:37	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	87.6			70.0-130		07/22/2022 20:37	<a href="#">WG1899607</a>

## 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	U		1.61	4.00	1	07/27/2022 14:56	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	3.05	<u>B J</u>	0.274	4.00	1	07/27/2022 14:56	<a href="#">WG1901042</a>
(S) o-Terphenyl	67.0			18.0-148		07/27/2022 14:56	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Naphthalene	0.00440	<u>J</u>	0.00408	0.0200	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 14:19	<a href="#">WG1901018</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 14:19	<a href="#">WG1901018</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 14:19	<a href="#">WG1901018</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 14:19	<a href="#">WG1901018</a>
(S) p-Terphenyl-d14	79.4			23.0-120		07/27/2022 14:19	<a href="#">WG1901018</a>
(S) Nitrobenzene-d5	50.6			14.0-149		07/27/2022 14:19	<a href="#">WG1901018</a>
(S) 2-Fluorobiphenyl	66.3			34.0-125		07/27/2022 14:19	<a href="#">WG1901018</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	1.14		1	08/01/2022 14:47	WG1902865

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1899784

## Sample Narrative:

L1517244-02 WG1899784: 8.4 at 25.5C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901859

## Sample Narrative:

L1517244-02 WG1901859: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	123		0.0852	0.500	1	08/05/2022 17:14	WG1901308
Cadmium	0.400	J	0.0471	0.500	1	08/05/2022 17:14	WG1901308
Copper	25.8		0.400	2.00	1	08/05/2022 17:14	WG1901308
Lead	14.6		0.208	0.500	1	08/05/2022 17:14	WG1901308
Nickel	18.5		0.132	2.00	1	08/05/2022 17:14	WG1901308
Selenium	U		0.764	2.00	1	08/05/2022 17:14	WG1901308
Silver	U		0.127	1.00	1	08/05/2022 17:14	WG1901308
Zinc	67.6		0.832	5.00	1	08/05/2022 17:14	WG1901308

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903661

<sup>10</sup> Tl

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1901310

<sup>11</sup> Cd

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0608	B J	0.0217	0.100	1	07/23/2022 04:27	WG1899210
(S) a,a,a-Trifluorotoluene(FID)	99.2			77.0-120		07/23/2022 04:27	WG1899210

<sup>12</sup> Hg

## 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	07/22/2022 20:58	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 20:58	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 20:58	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 20:58	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 20:58	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 20:58	<a href="#">WG1899607</a>
(S) Toluene-d8	103			75.0-131		07/22/2022 20:58	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	96.7			67.0-138		07/22/2022 20:58	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	88.7			70.0-130		07/22/2022 20:58	<a href="#">WG1899607</a>

## 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	U		1.61	4.00	1	07/27/2022 15:10	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	4.27		0.274	4.00	1	07/27/2022 15:10	<a href="#">WG1901042</a>
(S) o-Terphenyl	68.2			18.0-148		07/27/2022 15:10	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 14:37	<a href="#">WG1901018</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 14:37	<a href="#">WG1901018</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 14:37	<a href="#">WG1901018</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 14:37	<a href="#">WG1901018</a>
(S) p-Terphenyl-d14	83.4			23.0-120		07/27/2022 14:37	<a href="#">WG1901018</a>
(S) Nitrobenzene-d5	50.6			14.0-149		07/27/2022 14:37	<a href="#">WG1901018</a>
(S) 2-Fluorobiphenyl	65.5			34.0-125		07/27/2022 14:37	<a href="#">WG1901018</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	16.0		1	08/01/2022 14:50	WG1902865

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.441	<u>B J</u>	0.255	1.00	1	08/04/2022 03:21	WG1905133

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.11	<u>T8</u>	1	07/23/2022 13:00	WG1899784

## Sample Narrative:

L1517244-03 WG1899784: 9.11 at 25.3C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	1000		umhos/cm	umhos/cm		WG1901859

## Sample Narrative:

L1517244-03 WG1901859: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	81.6		mg/kg	0.0852	0.500	1	08/05/2022 17:23
Cadmium	0.397	<u>J</u>	mg/kg	0.0471	0.500	1	08/05/2022 17:23
Copper	25.8		mg/kg	0.400	2.00	1	08/05/2022 17:23
Lead	13.9		mg/kg	0.208	0.500	1	08/05/2022 17:23
Nickel	17.6		mg/kg	0.132	2.00	1	08/05/2022 17:23
Selenium	U		mg/kg	0.764	2.00	1	08/05/2022 17:23
Silver	U		mg/kg	0.127	1.00	1	08/05/2022 17:23
Zinc	63.7		mg/kg	0.832	5.00	1	08/05/2022 17:23

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.848		mg/l	0.0167	0.200	1	08/04/2022 21:19

<sup>10</sup> Br

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	5.71		mg/kg	0.100	1.00	5	08/05/2022 13:25

<sup>11</sup> Cl

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0727	<u>B J</u>	mg/kg	0.0217	0.100	1	07/23/2022 04:50
(S) a,a,a-Trifluorotoluene(FID)	99.3		mg/kg		77.0-120	07/23/2022 04:50	WG1899210

<sup>12</sup> Br

## 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	07/22/2022 21:19	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 21:19	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 21:19	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 21:19	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 21:19	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 21:19	<a href="#">WG1899607</a>
(S) Toluene-d8	109			75.0-131		07/22/2022 21:19	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	94.3			67.0-138		07/22/2022 21:19	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	89.1			70.0-130		07/22/2022 21:19	<a href="#">WG1899607</a>

## 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	U		1.61	4.00	1	07/27/2022 14:42	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	1.40	<u>B J</u>	0.274	4.00	1	07/27/2022 14:42	<a href="#">WG1901042</a>
(S) o-Terphenyl	49.1			18.0-148		07/27/2022 14:42	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 14:55	<a href="#">WG1901018</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 14:55	<a href="#">WG1901018</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 14:55	<a href="#">WG1901018</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 14:55	<a href="#">WG1901018</a>
(S) p-Terphenyl-d14	79.9			23.0-120		07/27/2022 14:55	<a href="#">WG1901018</a>
(S) Nitrobenzene-d5	52.7			14.0-149		07/27/2022 14:55	<a href="#">WG1901018</a>
(S) 2-Fluorobiphenyl	63.5			34.0-125		07/27/2022 14:55	<a href="#">WG1901018</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	8.98		1	08/01/2022 14:53	WG1902865

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.361	<u>B J J5 J6</u>	0.255	1.00	1	08/04/2022 03:26	<u>WG1905133</u>

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.59	<u>T8</u>	1	07/23/2022 13:00	<u>WG1899784</u>

<sup>3</sup> Ss

## Sample Narrative:

L1517244-04 WG1899784: 8.59 at 25.1C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	1280		umhos/cm	umhos/cm		<u>WG1901859</u>

<sup>5</sup> Sr

## Sample Narrative:

L1517244-04 WG1901859: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	199		mg/kg	0.0852	0.500	1	08/05/2022 17:25
Cadmium	0.294	<u>J</u>	mg/kg	0.0471	0.500	1	08/05/2022 17:25
Copper	27.3		mg/kg	0.400	2.00	1	08/05/2022 17:25
Lead	25.1		mg/kg	0.208	0.500	1	08/05/2022 17:25
Nickel	15.2		mg/kg	0.132	2.00	1	08/05/2022 17:25
Selenium	U		mg/kg	0.764	2.00	1	08/05/2022 17:25
Silver	U		mg/kg	0.127	1.00	1	08/05/2022 17:25
Zinc	56.7		mg/kg	0.832	5.00	1	08/05/2022 17:25

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.794		mg/l	0.0167	0.200	1	08/04/2022 21:22

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	2.33		mg/kg	0.100	1.00	5	08/05/2022 13:29

<sup>9</sup> Sc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0525	<u>B J</u>	mg/kg	0.0217	0.100	1	07/23/2022 05:13
(S) a,a,a-Trifluorotoluene(FID)	99.2		mg/kg		77.0-120		07/23/2022 05:13

## 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	07/22/2022 21:40	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 21:40	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 21:40	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 21:40	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 21:40	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 21:40	<a href="#">WG1899607</a>
(S) Toluene-d8	102			75.0-131		07/22/2022 21:40	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	96.5			67.0-138		07/22/2022 21:40	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	91.5			70.0-130		07/22/2022 21:40	<a href="#">WG1899607</a>

## 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	18.1		1.61	4.00	1	07/27/2022 15:52	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	28.0		0.274	4.00	1	07/27/2022 15:52	<a href="#">WG1901042</a>
(S) o-Terphenyl	65.3			18.0-148		07/27/2022 15:52	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Acenaphthene	U		0.00209	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Acenaphthylene	U		0.00216	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Chrysene	U		0.00232	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Fluoranthene	U		0.00227	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Fluorene	U		0.00205	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Naphthalene	U		0.00408	0.0200	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Phenanthrene	U		0.00231	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
Pyrene	U		0.00200	0.00600	1	07/27/2022 15:13	<a href="#">WG1901018</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/27/2022 15:13	<a href="#">WG1901018</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/27/2022 15:13	<a href="#">WG1901018</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/27/2022 15:13	<a href="#">WG1901018</a>
(S) p-Terphenyl-d14	88.1			23.0-120		07/27/2022 15:13	<a href="#">WG1901018</a>
(S) Nitrobenzene-d5	49.9			14.0-149		07/27/2022 15:13	<a href="#">WG1901018</a>
(S) 2-Fluorobiphenyl	63.6			34.0-125		07/27/2022 15:13	<a href="#">WG1901018</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	6.46		1	08/02/2022 20:05	WG1902871

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.425	<u>B</u> <u>J</u>	0.255	1.00	1	08/04/2022 04:02	WG1905133

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.15	<u>T</u> <u>8</u>	1	07/23/2022 13:00	WG1899784

## Sample Narrative:

L1517244-05 WG1899784: 9.15 at 25C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	507		10.0	1	07/29/2022 07:46	WG1901859

## Sample Narrative:

L1517244-05 WG1901859: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	2590		0.0852	0.500	1	08/03/2022 06:19	WG1901316
Cadmium	0.362	<u>J</u>	0.0471	0.500	1	08/03/2022 06:19	WG1901316
Copper	32.0		0.400	2.00	1	08/03/2022 06:19	WG1901316
Lead	15.5		0.208	0.500	1	08/03/2022 06:19	WG1901316
Nickel	19.6		0.132	2.00	1	08/03/2022 06:19	WG1901316
Selenium	U		0.764	2.00	1	08/03/2022 06:19	WG1901316
Silver	U		0.127	1.00	1	08/03/2022 06:19	WG1901316
Zinc	77.6		0.832	5.00	1	08/03/2022 06:19	WG1901316

<sup>1</sup> Cp

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.949		0.0167	0.200	1	08/04/2022 21:24	WG1903661

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	2.65		0.100	1.00	5	08/02/2022 17:40	WG1901314

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.104	<u>B</u>	0.0217	0.100	1	07/23/2022 05:35	WG1899210
(S) a,a,a-Trifluorotoluene(FID)	99.2			77.0-120		07/23/2022 05:35	WG1899210

## 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	07/22/2022 22:01	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 22:01	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 22:01	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 22:01	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 22:01	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	0.00388	J	0.00200	0.00500	1	07/22/2022 22:01	<a href="#">WG1899607</a>
(S) Toluene-d8	107			75.0-131		07/22/2022 22:01	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	91.1			67.0-138		07/22/2022 22:01	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	89.3			70.0-130		07/22/2022 22:01	<a href="#">WG1899607</a>

## 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	35.3		1.61	4.00	1	07/27/2022 15:38	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	20.1		0.274	4.00	1	07/27/2022 15:38	<a href="#">WG1901042</a>
(S) o-Terphenyl	61.9			18.0-148		07/27/2022 15:38	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Acenaphthene	U		0.00209	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Acenaphthylene	U		0.00216	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Chrysene	U		0.00232	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Fluoranthene	U		0.00227	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Fluorene	U		0.00205	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Naphthalene	U		0.00408	0.0200	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Phenanthrene	U		0.00231	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
Pyrene	U		0.00200	0.00600	1	07/28/2022 02:37	<a href="#">WG1901020</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/28/2022 02:37	<a href="#">WG1901020</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/28/2022 02:37	<a href="#">WG1901020</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/28/2022 02:37	<a href="#">WG1901020</a>
(S) p-Terphenyl-d14	70.6			23.0-120		07/28/2022 02:37	<a href="#">WG1901020</a>
(S) Nitrobenzene-d5	57.6			14.0-149		07/28/2022 02:37	<a href="#">WG1901020</a>
(S) 2-Fluorobiphenyl	61.7			34.0-125		07/28/2022 02:37	<a href="#">WG1901020</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	60.7		1	08/02/2022 20:08	WG1902871

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.538	<u>B J</u>	0.255	1.00	1	08/04/2022 04:07	<u>WG1905133</u>

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.86	<u>T8</u>	1	07/23/2022 13:00	<u>WG1899784</u>

<sup>3</sup> Ss

## Sample Narrative:

L1517244-07 WG1899784: 8.86 at 25C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	8450		10.0	1	07/31/2022 09:05	<u>WG1901882</u>

<sup>5</sup> Sr

## Sample Narrative:

L1517244-07 WG1901882: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	589		0.0852	0.500	1	08/03/2022 06:22	<u>WG1901316</u>
Cadmium	0.384	<u>J</u>	0.0471	0.500	1	08/03/2022 06:22	<u>WG1901316</u>
Copper	24.8		0.400	2.00	1	08/03/2022 06:22	<u>WG1901316</u>
Lead	23.7		0.208	0.500	1	08/03/2022 06:22	<u>WG1901316</u>
Nickel	16.3		0.132	2.00	1	08/03/2022 06:22	<u>WG1901316</u>
Selenium	U		0.764	2.00	1	08/03/2022 06:22	<u>WG1901316</u>
Silver	U		0.127	1.00	1	08/03/2022 06:22	<u>WG1901316</u>
Zinc	84.2		0.832	5.00	1	08/03/2022 06:22	<u>WG1901316</u>

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.419		0.0167	0.200	1	08/04/2022 21:27	<u>WG1903661</u>

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	6.40		0.100	1.00	5	08/02/2022 17:43	<u>WG1901314</u>

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0265	<u>B J</u>	0.0217	0.100	1	07/23/2022 05:58	<u>WG1899210</u>
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-120		07/23/2022 05:58	<u>WG1899210</u>

## 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	07/22/2022 22:22	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 22:22	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 22:22	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 22:22	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 22:22	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 22:22	<a href="#">WG1899607</a>
(S) Toluene-d8	103			75.0-131		07/22/2022 22:22	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	96.1			67.0-138		07/22/2022 22:22	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		07/22/2022 22:22	<a href="#">WG1899607</a>

## 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	112		1.61	4.00	1	07/27/2022 16:06	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	30.6		0.274	4.00	1	07/27/2022 16:06	<a href="#">WG1901042</a>
(S) o-Terphenyl	56.1			18.0-148		07/27/2022 16:06	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Acenaphthene	U		0.00209	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Acenaphthylene	U		0.00216	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Chrysene	U		0.00232	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Fluoranthene	U		0.00227	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Fluorene	U		0.00205	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Naphthalene	U		0.00408	0.0200	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Phenanthrene	0.0208		0.00231	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
Pyrene	0.00204	J	0.00200	0.00600	1	07/28/2022 02:55	<a href="#">WG1901020</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/28/2022 02:55	<a href="#">WG1901020</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/28/2022 02:55	<a href="#">WG1901020</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/28/2022 02:55	<a href="#">WG1901020</a>
(S) p-Terphenyl-d14	61.5			23.0-120		07/28/2022 02:55	<a href="#">WG1901020</a>
(S) Nitrobenzene-d5	48.9			14.0-149		07/28/2022 02:55	<a href="#">WG1901020</a>
(S) 2-Fluorobiphenyl	49.9			34.0-125		07/28/2022 02:55	<a href="#">WG1901020</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	36.5		1	08/02/2022 20:11	WG1902871

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	1.35	B	0.255	1.00	1	08/04/2022 04:13	WG1905133

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.03	T8	1	07/27/2022 10:00	WG1901438

<sup>3</sup> Ss

## Sample Narrative:

L1517244-08 WG1901438: 8.03 at 23.7C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	9220		10.0	1	07/29/2022 07:46	WG1901859

<sup>5</sup> Sr

## Sample Narrative:

L1517244-08 WG1901859: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	302		0.0852	0.500	1	08/03/2022 06:24	WG1901316
Cadmium	0.456	J	0.0471	0.500	1	08/03/2022 06:24	WG1901316
Copper	28.7		0.400	2.00	1	08/03/2022 06:24	WG1901316
Lead	19.6		0.208	0.500	1	08/03/2022 06:24	WG1901316
Nickel	16.2		0.132	2.00	1	08/03/2022 06:24	WG1901316
Selenium	U		0.764	2.00	1	08/03/2022 06:24	WG1901316
Silver	U		0.127	1.00	1	08/03/2022 06:24	WG1901316
Zinc	72.2		0.832	5.00	1	08/03/2022 06:24	WG1901316

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.935		0.0167	0.200	1	08/04/2022 21:30	WG1903661

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	5.95		0.100	1.00	5	08/02/2022 17:46	WG1901314

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.428	B	0.0217	0.100	1	07/23/2022 06:21	WG1899210
(S) a,a,a-Trifluorotoluene(FID)	97.2			77.0-120		07/23/2022 06:21	WG1899210

## 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	0.000500	J	0.000467	0.00100	1	07/22/2022 22:44	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 22:44	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 22:44	<a href="#">WG1899607</a>
Xylenes, Total	0.00721		0.000880	0.00650	1	07/22/2022 22:44	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	0.00660		0.00158	0.00500	1	07/22/2022 22:44	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	0.00480	J	0.00200	0.00500	1	07/22/2022 22:44	<a href="#">WG1899607</a>
(S) Toluene-d8	107			75.0-131		07/22/2022 22:44	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	92.3			67.0-138		07/22/2022 22:44	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	89.9			70.0-130		07/22/2022 22:44	<a href="#">WG1899607</a>

## 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	24.9		1.61	4.00	1	07/27/2022 15:24	<a href="#">WG1901042</a>
C28-C36 Motor Oil Range	21.5		0.274	4.00	1	07/27/2022 15:24	<a href="#">WG1901042</a>
(S) o-Terphenyl	61.6			18.0-148		07/27/2022 15:24	<a href="#">WG1901042</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Acenaphthene	U		0.00209	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Acenaphthylene	U		0.00216	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Chrysene	U		0.00232	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Fluoranthene	U		0.00227	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Fluorene	0.00510	J	0.00205	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Naphthalene	U		0.00408	0.0200	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Phenanthrene	0.00947		0.00231	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
Pyrene	U		0.00200	0.00600	1	07/28/2022 03:12	<a href="#">WG1901020</a>
1-Methylnaphthalene	0.0109	J	0.00449	0.0200	1	07/28/2022 03:12	<a href="#">WG1901020</a>
2-Methylnaphthalene	0.00942	J	0.00427	0.0200	1	07/28/2022 03:12	<a href="#">WG1901020</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/28/2022 03:12	<a href="#">WG1901020</a>
(S) p-Terphenyl-d14	64.9			23.0-120		07/28/2022 03:12	<a href="#">WG1901020</a>
(S) Nitrobenzene-d5	74.6			14.0-149		07/28/2022 03:12	<a href="#">WG1901020</a>
(S) 2-Fluorobiphenyl	63.7			34.0-125		07/28/2022 03:12	<a href="#">WG1901020</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	42.5		1	08/02/2022 20:14	WG1902871

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.435	<u>B J</u>	0.255	1.00	1	08/04/2022 04:18	<u>WG1905133</u>

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result su	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.15	<u>T8</u>	1	07/23/2022 11:00	<u>WG1899769</u>

<sup>3</sup> Ss

## Sample Narrative:

L1517244-09 WG1899769: 9.15 at 24.6C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	3200		10.0	1	07/29/2022 07:46	<u>WG1901859</u>

<sup>5</sup> Sr

## Sample Narrative:

L1517244-09 WG1901859: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	2520	<u>O1 V</u>	0.0852	0.500	1	08/03/2022 06:06	<u>WG1901316</u>
Cadmium	0.382	<u>J</u>	0.0471	0.500	1	08/03/2022 06:06	<u>WG1901316</u>
Copper	26.1		0.400	2.00	1	08/03/2022 06:06	<u>WG1901316</u>
Lead	30.0		0.208	0.500	1	08/03/2022 06:06	<u>WG1901316</u>
Nickel	15.4		0.132	2.00	1	08/03/2022 06:06	<u>WG1901316</u>
Selenium	U		0.764	2.00	1	08/03/2022 06:06	<u>WG1901316</u>
Silver	U		0.127	1.00	1	08/03/2022 06:06	<u>WG1901316</u>
Zinc	64.5		0.832	5.00	1	08/03/2022 06:06	<u>WG1901316</u>

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.942		0.0167	0.200	1	08/04/2022 21:33	<u>WG1903661</u>

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	4.01		0.100	1.00	5	08/02/2022 17:23	<u>WG1901314</u>

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0553	<u>B J</u>	0.0217	0.100	1	07/23/2022 08:39	<u>WG1899210</u>
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-120		07/23/2022 08:39	<u>WG1899210</u>

## 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	07/22/2022 23:05	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 23:05	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 23:05	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 23:05	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 23:05	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 23:05	<a href="#">WG1899607</a>
(S) Toluene-d8	109			75.0-131		07/22/2022 23:05	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	96.1			67.0-138		07/22/2022 23:05	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	88.6			70.0-130		07/22/2022 23:05	<a href="#">WG1899607</a>

## 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	U		1.61	4.00	1	07/27/2022 14:02	<a href="#">WG1901043</a>
C28-C36 Motor Oil Range	3.30	J	0.274	4.00	1	07/27/2022 14:02	<a href="#">WG1901043</a>
(S) o-Terphenyl	42.3			18.0-148		07/27/2022 14:02	<a href="#">WG1901043</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Acenaphthene	U		0.00209	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Acenaphthylene	U		0.00216	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Chrysene	U		0.00232	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Fluoranthene	U		0.00227	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Fluorene	U		0.00205	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Naphthalene	U		0.00408	0.0200	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Phenanthrene	U		0.00231	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
Pyrene	U		0.00200	0.00600	1	07/28/2022 04:06	<a href="#">WG1901020</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/28/2022 04:06	<a href="#">WG1901020</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/28/2022 04:06	<a href="#">WG1901020</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/28/2022 04:06	<a href="#">WG1901020</a>
(S) p-Terphenyl-d14	63.3			23.0-120		07/28/2022 04:06	<a href="#">WG1901020</a>
(S) Nitrobenzene-d5	53.6			14.0-149		07/28/2022 04:06	<a href="#">WG1901020</a>
(S) 2-Fluorobiphenyl	53.2			34.0-125		07/28/2022 04:06	<a href="#">WG1901020</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	6.11		1	08/02/2022 20:17	WG1902871

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.854	<u>B J</u>	0.255	1.00	1	08/04/2022 04:23	<u>WG1905133</u>

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result SU	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.42	<u>T8</u>	1	07/23/2022 13:00	<u>WG1899784</u>

<sup>3</sup> Ss

## Sample Narrative:

L1517244-10 WG1899784: 8.42 at 25C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	1120		10.0	1	07/31/2022 09:05	<u>WG1901882</u>

<sup>5</sup> Sr

## Sample Narrative:

L1517244-10 WG1901882: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Barium	196		0.0852	0.500	1	08/03/2022 06:33	<u>WG1901316</u>
Cadmium	0.597		0.0471	0.500	1	08/03/2022 06:33	<u>WG1901316</u>
Copper	34.3		0.400	2.00	1	08/03/2022 06:33	<u>WG1901316</u>
Lead	20.3		0.208	0.500	1	08/03/2022 06:33	<u>WG1901316</u>
Nickel	19.5		0.132	2.00	1	08/03/2022 06:33	<u>WG1901316</u>
Selenium	U		0.764	2.00	1	08/03/2022 06:33	<u>WG1901316</u>
Silver	U		0.127	1.00	1	08/03/2022 06:33	<u>WG1901316</u>
Zinc	74.4		0.832	5.00	1	08/03/2022 06:33	<u>WG1901316</u>

<sup>7</sup> GI

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

Analyte	Result mg/l	<u>Qualifier</u>	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.586		0.0167	0.200	1	08/04/2022 21:36	<u>WG1903661</u>

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	6.05		0.100	1.00	5	08/02/2022 17:56	<u>WG1901314</u>

<sup>9</sup> Sc

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

Analyte	Result mg/kg	<u>Qualifier</u>	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) Low Fraction	0.0402	<u>B J</u>	0.0217	0.100	1	07/23/2022 09:02	<u>WG1899210</u>
(S) a,a,a-Trifluorotoluene(FID)	99.7			77.0-120		07/23/2022 09:02	<u>WG1899210</u>

## 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	07/22/2022 23:26	<a href="#">WG1899607</a>
Toluene	U		0.00130	0.00500	1	07/22/2022 23:26	<a href="#">WG1899607</a>
Ethylbenzene	U		0.000737	0.00250	1	07/22/2022 23:26	<a href="#">WG1899607</a>
Xylenes, Total	U		0.000880	0.00650	1	07/22/2022 23:26	<a href="#">WG1899607</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/22/2022 23:26	<a href="#">WG1899607</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/22/2022 23:26	<a href="#">WG1899607</a>
(S) Toluene-d8	110			75.0-131		07/22/2022 23:26	<a href="#">WG1899607</a>
(S) 4-Bromofluorobenzene	98.8			67.0-138		07/22/2022 23:26	<a href="#">WG1899607</a>
(S) 1,2-Dichloroethane-d4	86.1			70.0-130		07/22/2022 23:26	<a href="#">WG1899607</a>

## 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	U		1.61	4.00	1	07/27/2022 14:16	<a href="#">WG1901043</a>
C28-C36 Motor Oil Range	4.59		0.274	4.00	1	07/27/2022 14:16	<a href="#">WG1901043</a>
(S) o-Terphenyl	52.2			18.0-148		07/27/2022 14:16	<a href="#">WG1901043</a>

## 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
Anthracene	U		0.00230	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Acenaphthene	U		0.00209	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Acenaphthylene	U		0.00216	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Chrysene	U		0.00232	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Fluoranthene	U		0.00227	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Fluorene	U		0.00205	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Naphthalene	U		0.00408	0.0200	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Phenanthrene	U		0.00231	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
Pyrene	U		0.00200	0.00600	1	07/28/2022 04:24	<a href="#">WG1901020</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	07/28/2022 04:24	<a href="#">WG1901020</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	07/28/2022 04:24	<a href="#">WG1901020</a>
2-Chloronaphthalene	U		0.00466	0.0200	1	07/28/2022 04:24	<a href="#">WG1901020</a>
(S) p-Terphenyl-d14	54.8			23.0-120		07/28/2022 04:24	<a href="#">WG1901020</a>
(S) Nitrobenzene-d5	55.5			14.0-149		07/28/2022 04:24	<a href="#">WG1901020</a>
(S) 2-Fluorobiphenyl	57.1			34.0-125		07/28/2022 04:24	<a href="#">WG1901020</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> Sc

WG1904736

Wet Chemistry by Method 7199

## QUALITY CONTROL SUMMARY

[L1517244-01,02](#)

## Method Blank (MB)

(MB) R3825663-1 08/12/22 07:43

Analyst	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	U		0.255	1.00

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

## L1514822-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1514822-03 08/12/22 08:29 • (DUP) R3825663-7 08/12/22 08:34

Analyst	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	1.15	1.17	1	1.95		20

## L1516275-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1516275-03 08/12/22 09:31 • (DUP) R3825663-8 08/12/22 09:36

Analyst	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	U	U	1	0.000		20

## Laboratory Control Sample (LCS)

(LCS) R3825663-2 08/12/22 07:49

Analyst	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	10.5	105	80.0-120	

## L1514822-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-3 08/12/22 08:03 • (MSD) R3825663-4 08/12/22 08:08

Analyst	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 %
Hexavalent Chromium	20.0	1.16	20.8	20.6	98.2	97.1	1	75.0-125			1.04	20

## L1514822-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-6 08/12/22 08:18

Analyst	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	643	1.16	798	124	50	75.0-125	

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

FEDERAL 1-30

SDG:

L1517244

DATE/TIME:

08/12/22 16:02

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## QUALITY CONTROL SUMMARY

[L1517244-03,04,05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3822634-1 08/04/22 02:52

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	0.271	J	0.255	1.00

<sup>1</sup>Cp

## L1515310-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515310-01 08/04/22 03:10 • (DUP) R3822634-3 08/04/22 03:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.477	0.474	1	0.517	J	20

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc

## L1517741-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1517741-01 08/04/22 04:33 • (DUP) R3822634-8 08/04/22 04:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	mg/kg	mg/kg		%		%
Hexavalent Chromium	1.21	1.20	1	0.612		20

<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS)

(LCS) R3822634-2 08/04/22 02:57

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.7	107	80.0-120	

## L1517244-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517244-04 08/04/22 03:26 • (MS) R3822634-4 08/04/22 03:31 • (MSD) R3822634-5 08/04/22 03:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	0.361	33.0	31.1	163	154	1	75.0-125	J5	J5	6.04	20

<sup>10</sup>Ms

## L1517244-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1517244-04 08/04/22 03:26 • (MS) R3822634-7 08/04/22 03:57

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>
	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	0.361	104	16.2	50	75.0-125	J6

<sup>11</sup>Msd

## L1517284-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1517284-03 07/23/22 11:00 • (DUP) R3818433-2 07/23/22 11:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	7.52	7.49	1	0.400		1

## Sample Narrative:

OS: 7.52 at 24.7C

DUP: 7.49 at 24.8C

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

## L1517801-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1517801-03 07/23/22 11:00 • (DUP) R3818433-3 07/23/22 11:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	7.89	7.91	1	0.253		1

## Sample Narrative:

OS: 7.89 at 24.4C

DUP: 7.91 at 24.4C

## Laboratory Control Sample (LCS)

(LCS) R3818433-1 07/23/22 11:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.92	99.2	99.0-101	

## Sample Narrative:

LCS: 9.92 at 24C

## QUALITY CONTROL SUMMARY

L1517244-01,02,03,04,05,07,10

## L1517244-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1517244-01 07/23/22 13:00 • (DUP) R3818468-2 07/23/22 13:00

<sup>1</sup>Cp

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	8.50	8.53	1	0.352	1	

## Sample Narrative:

OS: 8.5 at 24.8C

DUP: 8.53 at 25.2C

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L1517725-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1517725-02 07/23/22 13:00 • (DUP) R3818468-3 07/23/22 13:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	8.61	8.60	1	0.116	1	

## Sample Narrative:

OS: 8.61 at 25.2C

DUP: 8.6 at 25.4C

## Laboratory Control Sample (LCS)

(LCS) R3818468-1 07/23/22 13:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.92	99.2	99.0-101	

## Sample Narrative:

LCS: 9.92 at 24.1C

## QUALITY CONTROL SUMMARY

[L1517244-08](#)

## L1517824-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1517824-01 07/27/22 10:00 • (DUP) R3819661-2 07/27/22 10:00

<sup>1</sup>Cp

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	pH	su		%		%
pH	8.66	8.63	1	0.347		1

## Sample Narrative:

OS: 8.66 at 23.5C  
 DUP: 8.63 at 23.5C

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc

## L1518221-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1518221-02 07/27/22 10:00 • (DUP) R3819661-3 07/27/22 10:00

<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	pH	su		%		%
pH	8.96	8.96	1	0.000		1

## Sample Narrative:

OS: 8.96 at 23.6C  
 DUP: 8.96 at 23.6C

## Laboratory Control Sample (LCS)

(LCS) R3819661-1 07/27/22 10:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

## Sample Narrative:

LCS: 10.01 at 23.9C

WG1901859

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04,05,08,09](#)

## Method Blank (MB)

(MB) R3820470-1 07/29/22 07:46

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

## Sample Narrative:

BLANK: at 25C

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

## L1516783-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1516783-02 07/29/22 07:46 • (DUP) R3820470-3 07/29/22 07:46

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	3020	2970	1	1.70		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1517244-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1517244-08 07/29/22 07:46 • (DUP) R3820470-4 07/29/22 07:46

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	9220	9140	1	0.871		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3820470-2 07/29/22 07:46

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	286	286	99.9	85.0-115	

## Sample Narrative:

LCS: at 25C

WG1901882

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

[L1517244-07,10](#)

## Method Blank (MB)

(MB) R3820998-1 07/31/22 09:05

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

## Sample Narrative:

BLANK: at 25C

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

## L1516407-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1516407-06 07/31/22 09:05 • (DUP) R3820998-3 07/31/22 09:05

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	11700	13000	1	10.9		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1517252-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1517252-01 07/31/22 09:05 • (DUP) R3820998-4 07/31/22 09:05

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	5070	5360	1	5.56		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3820998-2 07/31/22 09:05

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	286	281	98.1	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04](#)

## Method Blank (MB)

(MB) R3823275-1 08/05/22 16:15

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3823275-2 08/05/22 16:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	98.9	98.9	80.0-120	
Cadmium	100	94.7	94.7	80.0-120	
Copper	100	97.4	97.4	80.0-120	
Lead	100	95.0	95.0	80.0-120	
Nickel	100	96.3	96.3	80.0-120	
Selenium	100	98.2	98.2	80.0-120	
Silver	20.0	17.9	89.3	80.0-120	
Zinc	100	94.9	94.9	80.0-120	

## L1517897-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517897-01 08/05/22 16:20 • (MS) R3823275-5 08/05/22 16:29 • (MSD) R3823275-6 08/05/22 16:32

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	350	1290	249	943	0.000	1	75.0-125	J5	J3 J6	135
Cadmium	100	0.820	106	97.9	105	97.0	1	75.0-125			7.81
Copper	100	12.9	122	113	110	100	1	75.0-125			7.86
Lead	100	24.6	127	114	102	89.3	1	75.0-125			10.6
Nickel	100	16.9	125	113	108	96.4	1	75.0-125			10.1
Selenium	100	U	108	101	108	101	1	75.0-125			6.78
Silver	20.0	U	21.2	19.3	106	96.6	1	75.0-125			9.12
Zinc	100	169	288	253	119	84.0	1	75.0-125			13.0

## QUALITY CONTROL SUMMARY

[L1517244-05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3822087-1 08/03/22 06:01

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3822087-2 08/03/22 06:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	97.1	97.1	80.0-120	
Cadmium	100	93.4	93.4	80.0-120	
Copper	100	95.4	95.4	80.0-120	
Lead	100	92.0	92.0	80.0-120	
Nickel	100	92.5	92.5	80.0-120	
Selenium	100	94.0	94.0	80.0-120	
Silver	20.0	17.9	89.7	80.0-120	
Zinc	100	91.4	91.4	80.0-120	

## L1517244-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517244-09 08/03/22 06:06 • (MS) R3822087-5 08/03/22 06:14 • (MSD) R3822087-6 08/03/22 06:16

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	2520	2180	2670	0.000	150	1	75.0-125	V	V	20.0
Cadmium	100	0.382	92.2	93.5	91.8	93.2	1	75.0-125			1.48
Copper	100	26.1	122	125	95.9	98.9	1	75.0-125			2.41
Lead	100	30.0	109	116	79.5	85.5	1	75.0-125			5.34
Nickel	100	15.4	103	105	87.7	89.8	1	75.0-125			2.02
Selenium	100	U	92.3	92.9	92.3	92.9	1	75.0-125			0.607
Silver	20.0	U	17.7	18.1	88.4	90.5	1	75.0-125			2.35
Zinc	100	64.5	145	151	80.2	86.3	1	75.0-125			4.10

WG1903661

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

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04,05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3822916-1 08/04/22 20:39

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

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

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

(LCS) R3822916-2 08/04/22 20:41 • (LCSD) R3822916-3 08/04/22 20:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.05	1.03	105	103	80.0-120			1.89	20

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04](#)

## Method Blank (MB)

(MB) R3823121-1 08/05/22 12:02

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

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

## Laboratory Control Sample (LCS)

(LCS) R3823121-2 08/05/22 12:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	89.8	89.8	80.0-120	

## L1517897-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517897-01 08/05/22 12:09 • (MS) R3823121-5 08/05/22 12:18 • (MSD) R3823121-6 08/05/22 12:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Arsenic	100	18.2	112	102	94.0	83.8	5	75.0-125		9.47	20

## QUALITY CONTROL SUMMARY

[L1517244-05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3821900-1 08/02/22 17:17

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

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

## Laboratory Control Sample (LCS)

(LCS) R3821900-2 08/02/22 17:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	88.6	88.6	80.0-120	

## L1517244-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517244-09 08/02/22 17:23 • (MS) R3821900-5 08/02/22 17:33 • (MSD) R3821900-6 08/02/22 17:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Arsenic	100	4.01	84.0	90.3	79.9	86.3	5	75.0-125		7.28	20

WG1899210

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

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04,05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3820157-2 07/22/22 20:49

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0515	J	0.0217	0.100
(S) <i>a,a,a-Trifluorotoluene(FID)</i>	100			77.0-120

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

## Laboratory Control Sample (LCS)

(LCS) R3820157-1 07/22/22 19:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TPH (GC/FID) Low Fraction	5.50	5.04	91.6	72.0-127	
(S) <i>a,a,a-Trifluorotoluene(FID)</i>		106		77.0-120	

## L1516840-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1516840-19 07/22/22 21:50 • (MS) R3820157-3 07/23/22 10:56 • (MSD) R3820157-4 07/23/22 12:21

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
TPH (GC/FID) Low Fraction	5.50	U	3.24	3.08	58.9	56.0	1	10.0-151			5.06	28
(S) <i>a,a,a-Trifluorotoluene(FID)</i>				99.6	99.1			77.0-120				

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

FEDERAL 1-30

SDG:

L1517244

DATE/TIME:

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WG1899607

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

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04,05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3818444-3 07/22/22 18:09

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg	<sup>1</sup> Cp
Benzene	U		0.000467	0.00100	<sup>2</sup> Tc
Toluene	U		0.00130	0.00500	<sup>3</sup> Ss
Ethylbenzene	U		0.000737	0.00250	<sup>4</sup> Cn
Xylenes, Total	U		0.000880	0.00650	<sup>5</sup> Sr
1,2,4-Trimethylbenzene	U		0.00158	0.00500	<sup>6</sup> Qc
1,3,5-Trimethylbenzene	U		0.00200	0.00500	<sup>7</sup> Gl
(S) Toluene-d8	106		75.0-131		<sup>8</sup> Al
(S) 4-Bromofluorobenzene	95.9		67.0-138		<sup>9</sup> Sc
(S) 1,2-Dichloroethane-d4	89.4		70.0-130		

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

(LCS) R3818444-1 07/22/22 16:44 • (LCSD) R3818444-2 07/22/22 17:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Benzene	0.125	0.124	0.130	99.2	104	70.0-123			4.72	20
Toluene	0.125	0.125	0.125	100	100	75.0-121			0.000	20
Ethylbenzene	0.125	0.123	0.129	98.4	103	74.0-126			4.76	20
Xylenes, Total	0.375	0.384	0.400	102	107	72.0-127			4.08	20
1,2,4-Trimethylbenzene	0.125	0.134	0.138	107	110	70.0-126			2.94	20
1,3,5-Trimethylbenzene	0.125	0.129	0.136	103	109	73.0-127			5.28	20
(S) Toluene-d8			102	101		75.0-131				
(S) 4-Bromofluorobenzene			98.4	94.4		67.0-138				
(S) 1,2-Dichloroethane-d4			102	101		70.0-130				

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

FEDERAL 1-30

SDG:

L1517244

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

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04,05,07,08](#)

## Method Blank (MB)

(MB) R3819801-1 07/27/22 13:42

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	0.366	J	0.274	4.00
(S) o-Terphenyl	83.6			18.0-148

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

## Laboratory Control Sample (LCS)

(LCS) R3819801-2 07/27/22 13:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
C10-C28 Diesel Range	50.0	33.7	67.4	50.0-150	
(S) o-Terphenyl			69.7	18.0-148	

## L1517071-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517071-02 07/27/22 18:56 • (MS) R3820048-2 07/27/22 17:17 • (MSD) R3820048-1 07/27/22 17:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C28 Diesel Range	49.4	8.98	36.4	43.6	55.5	70.1	1	50.0-150		18.0	20
(S) o-Terphenyl					65.8	72.9		18.0-148			

## QUALITY CONTROL SUMMARY

[L1517244-09,10](#)

## Method Blank (MB)

(MB) R3819736-1 07/27/22 12:30

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	64.4		18.0-148	

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

## Laboratory Control Sample (LCS)

(LCS) R3819736-2 07/27/22 12:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
C10-C28 Diesel Range	50.0	35.3	70.6	50.0-150	
(S) o-Terphenyl		88.3	18.0-148		

## L1517291-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517291-04 07/27/22 17:33 • (MS) R3819736-3 07/27/22 17:47 • (MSD) R3819736-4 07/27/22 18:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %	
C10-C28 Diesel Range	49.8	358	U	U	0.000	0.000	20	50.0-150	V	V	0.000	20
(S) o-Terphenyl					0.000	0.000	18.0-148	J7	J7			

## Method Blank (MB)

(MB) R3819696-2 07/27/22 08:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	1 Cp
Anthracene	U		0.00230	0.00600	
Acenaphthene	U		0.00209	0.00600	
Acenaphthylene	U		0.00216	0.00600	
Benzo(a)anthracene	U		0.00173	0.00600	
Benzo(a)pyrene	U		0.00179	0.00600	
Benzo(b)fluoranthene	U		0.00153	0.00600	
Benzo(g,h,i)perylene	U		0.00177	0.00600	
Benzo(k)fluoranthene	U		0.00215	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	
Naphthalene	U		0.00408	0.0200	
Phenanthrene	U		0.00231	0.00600	
Pyrene	U		0.00200	0.00600	
1-Methylnaphthalene	U		0.00449	0.0200	
2-Methylnaphthalene	U		0.00427	0.0200	
2-Chloronaphthalene	U		0.00466	0.0200	
(S) p-Terphenyl-d14	56.8		23.0-120		
(S) Nitrobenzene-d5	38.0		14.0-149		
(S) 2-Fluorobiphenyl	45.9		34.0-125		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Laboratory Control Sample (LCS)

(LCS) R3819696-1 07/27/22 08:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0522	65.3	50.0-126	
Acenaphthene	0.0800	0.0485	60.6	50.0-120	
Acenaphthylene	0.0800	0.0500	62.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0545	68.1	45.0-120	
Benzo(a)pyrene	0.0800	0.0535	66.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0481	60.1	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0490	61.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0480	60.0	49.0-125	
Chrysene	0.0800	0.0529	66.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0525	65.6	47.0-125	
Fluoranthene	0.0800	0.0547	68.4	49.0-129	

## QUALITY CONTROL SUMMARY

[L1517244-01,02,03,04](#)

## Laboratory Control Sample (LCS)

(LCS) R3819696-1 07/27/22 08:21

<sup>1</sup> Cp

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0524	65.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0538	67.3	46.0-125	
Naphthalene	0.0800	0.0445	55.6	50.0-120	
Phenanthrene	0.0800	0.0509	63.6	47.0-120	
Pyrene	0.0800	0.0549	68.6	43.0-123	
1-Methylnaphthalene	0.0800	0.0474	59.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0485	60.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0451	56.4	50.0-120	
(S) p-Terphenyl-d14		78.3	23.0-120		
(S) Nitrobenzene-d5		59.5	14.0-149		
(S) 2-Fluorobiphenyl		67.1	34.0-125		

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## L1515904-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515904-14 07/27/22 09:15 • (MS) R3819696-3 07/27/22 09:33 • (MSD) R3819696-4 07/27/22 09:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0788	U	0.0488	0.0442	61.9	56.1	1	10.0-145		9.89	30
Acenaphthene	0.0788	U	0.0471	0.0403	59.8	51.1	1	14.0-127		15.6	27
Acenaphthylene	0.0788	U	0.0481	0.0411	61.0	52.2	1	21.0-124		15.7	25
Benzo(a)anthracene	0.0788	U	0.0521	0.0472	66.1	59.9	1	10.0-139		9.87	30
Benzo(a)pyrene	0.0788	U	0.0549	0.0519	69.7	65.9	1	10.0-141		5.62	31
Benzo(b)fluoranthene	0.0788	U	0.0502	0.0460	63.7	58.4	1	10.0-140		8.73	36
Benzo(g,h,i)perylene	0.0788	U	0.0515	0.0500	65.4	63.5	1	10.0-140		2.96	33
Benzo(k)fluoranthene	0.0788	U	0.0492	0.0465	62.4	59.0	1	10.0-137		5.64	31
Chrysene	0.0788	U	0.0547	0.0507	69.4	64.3	1	10.0-145		7.59	30
Dibenz(a,h)anthracene	0.0788	U	0.0534	0.0514	67.8	65.2	1	10.0-132		3.82	31
Fluoranthene	0.0788	U	0.0539	0.0466	68.4	59.1	1	10.0-153		14.5	33
Fluorene	0.0788	U	0.0503	0.0431	63.8	54.7	1	11.0-130		15.4	29
Indeno(1,2,3-cd)pyrene	0.0788	U	0.0545	0.0509	69.2	64.6	1	10.0-137		6.83	32
Naphthalene	0.0788	U	0.0430	0.0389	54.6	49.4	1	10.0-135		10.0	27
Phenanthrene	0.0788	U	0.0508	0.0437	64.5	55.5	1	10.0-144		15.0	31
Pyrene	0.0788	U	0.0563	0.0497	71.4	63.1	1	10.0-148		12.5	35
1-Methylnaphthalene	0.0788	U	0.0456	0.0399	57.9	50.6	1	10.0-142		13.3	28
2-Methylnaphthalene	0.0788	U	0.0460	0.0401	58.4	50.9	1	10.0-137		13.7	28
2-Chloronaphthalene	0.0788	U	0.0438	0.0386	55.5	48.9	1	29.0-120		12.6	24
(S) p-Terphenyl-d14				83.4	73.1		23.0-120				
(S) Nitrobenzene-d5				75.9	73.8		14.0-149				
(S) 2-Fluorobiphenyl				78.6	71.7		34.0-125				

WG1901020

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

## QUALITY CONTROL SUMMARY

[L1517244-05,07,08,09,10](#)

## Method Blank (MB)

(MB) R3821029-2 07/28/22 02:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	1 Cp
Anthracene	U		0.00230	0.00600	
Acenaphthene	U		0.00209	0.00600	
Acenaphthylene	U		0.00216	0.00600	
Benzo(a)anthracene	U		0.00173	0.00600	
Benzo(a)pyrene	U		0.00179	0.00600	
Benzo(b)fluoranthene	U		0.00153	0.00600	
Benzo(g,h,i)perylene	U		0.00177	0.00600	
Benzo(k)fluoranthene	U		0.00215	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	
Naphthalene	U		0.00408	0.0200	
Phenanthrene	U		0.00231	0.00600	
Pyrene	U		0.00200	0.00600	
1-Methylnaphthalene	U		0.00449	0.0200	
2-Methylnaphthalene	U		0.00427	0.0200	
2-Chloronaphthalene	U		0.00466	0.0200	
(S) p-Terphenyl-d14	63.2		23.0-120		
(S) Nitrobenzene-d5	57.3		14.0-149		
(S) 2-Fluorobiphenyl	60.0		34.0-125		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Laboratory Control Sample (LCS)

(LCS) R3821029-1 07/28/22 02:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0651	81.4	50.0-126	
Acenaphthene	0.0800	0.0632	79.0	50.0-120	
Acenaphthylene	0.0800	0.0658	82.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0672	84.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0662	82.8	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0595	74.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0608	76.0	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0582	72.8	49.0-125	
Chrysene	0.0800	0.0664	83.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0644	80.5	47.0-125	
Fluoranthene	0.0800	0.0669	83.6	49.0-129	

## Laboratory Control Sample (LCS)

(LCS) R3821029-1 07/28/22 02:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0658	82.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0677	84.6	46.0-125	
Naphthalene	0.0800	0.0616	77.0	50.0-120	
Phenanthrene	0.0800	0.0616	77.0	47.0-120	
Pyrene	0.0800	0.0643	80.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0641	80.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0660	82.5	50.0-120	
2-Chloronaphthalene	0.0800	0.0611	76.4	50.0-120	
(S) p-Terphenyl-d14		81.8	23.0-120		
(S) Nitrobenzene-d5		78.7	14.0-149		
(S) 2-Fluorobiphenyl		79.1	34.0-125		

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

## L1517244-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1517244-08 07/28/22 03:12 • (MS) R3821029-3 07/28/22 03:30 • (MSD) R3821029-4 07/28/22 03:48

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0792	U	0.0566	0.0533	71.5	67.3	1	10.0-145		6.01	30
Acenaphthene	0.0792	U	0.0535	0.0517	67.6	65.3	1	14.0-127		3.42	27
Acenaphthylene	0.0792	U	0.0556	0.0532	70.2	67.2	1	21.0-124		4.41	25
Benzo(a)anthracene	0.0792	U	0.0565	0.0533	71.3	67.3	1	10.0-139		5.83	30
Benzo(a)pyrene	0.0792	U	0.0573	0.0541	72.3	68.3	1	10.0-141		5.75	31
Benzo(b)fluoranthene	0.0792	U	0.0495	0.0472	62.5	59.6	1	10.0-140		4.76	36
Benzo(g,h,i)perylene	0.0792	U	0.0517	0.0493	65.3	62.2	1	10.0-140		4.75	33
Benzo(k)fluoranthene	0.0792	U	0.0479	0.0462	60.5	58.3	1	10.0-137		3.61	31
Chrysene	0.0792	U	0.0559	0.0530	70.6	66.9	1	10.0-145		5.33	30
Dibenz(a,h)anthracene	0.0792	U	0.0531	0.0506	67.0	63.9	1	10.0-132		4.82	31
Fluoranthene	0.0792	U	0.0578	0.0552	73.0	69.7	1	10.0-153		4.60	33
Fluorene	0.0792	0.00510	0.0570	0.0560	65.5	64.3	1	11.0-130		1.77	29
Indeno(1,2,3-cd)pyrene	0.0792	U	0.0574	0.0543	72.5	68.6	1	10.0-137		5.55	32
Naphthalene	0.0792	U	0.0529	0.0506	66.8	63.9	1	10.0-135		4.44	27
Phenanthrene	0.0792	0.00947	0.0553	0.0539	57.9	56.1	1	10.0-144		2.56	31
Pyrene	0.0792	U	0.0558	0.0525	70.5	66.3	1	10.0-148		6.09	35
1-Methylnaphthalene	0.0792	0.0109	0.0607	0.0599	62.9	61.9	1	10.0-142		1.33	28
2-Methylnaphthalene	0.0792	0.00942	0.0597	0.0593	63.5	63.0	1	10.0-137		0.672	28
2-Chloronaphthalene	0.0792	U	0.0514	0.0497	64.9	62.8	1	29.0-120		3.36	24
(S) p-Terphenyl-d14					64.4	64.6		23.0-120			
(S) Nitrobenzene-d5					68.8	61.0		14.0-149			
(S) 2-Fluorobiphenyl					65.9	63.0		34.0-125			

# 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.	1 Cp
RDL	Reported Detection Limit.	2 Tc
Rec.	Recovery.	3 Ss
RPD	Relative Percent Difference.	4 Cn
SDG	Sample Delivery Group.	5 Sr
(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.	6 Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	7 GI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	8 AI
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.	9 Sc
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

B	The same analyte is found in the associated blank.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



### CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
**Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields**

Company: Confluence Compliance Companies		Billing Information: Info on file	
Address: Info on file			
Report To: Chris McKisson		Email To: Info on file	
Copy To: remediation@confluence-cc.com		Site Collection Info/Address:	
Customer Project Name/Number: P&A		State: County/City: Time Zone Collected: [ ] PT [ ] MTD [ ] CDT [ ] ET	
Phone:	Site/Facility ID #: Federal 1-30		Compliance Monitoring? [ ] Yes [X] No
Email:			
Collected By (print): Jana Nilsen	Purchase Order #:		DW PWS ID #:
Collected By (signature):	Quote #:		DW Location Code:
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Turnaround Date Required: Rush: (Expedite Charges Apply) [ ] Same Day [x] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day		Immediately Packed on Ice: [X] Yes [ ] No Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID  
Sample Prefix: 20220719-FED\_1-30\_FL

Customer Sample ID Sample Prefix: 20220719-FED_1-30_FL	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)
			Date	Time	Date	Time			
CAP_TRENCH-END@6'	SS	G	7/19/2022	0858			3	G	X X X X X X
METER_INLET@6'	SS	G	7/19/2022	0902			3	G	X X X X X X
METER_OUTLET_DEHY_IN/OUTLET@6'	SS	G	7/19/2022	0910			3	G	X X X X X X
SEP_INLET@6'	SS	G	7/19/2022	0918			3	G	X X X X X X
SEP_OUTLET_TO_OIL@5'	SS	G	7/19/2022	0925			3	G	X X X X X X
SEP_OUTLET_GAS@2'	SS	G	7/19/2022	0935			3	G	
MID_TRENCH_WH_PJ@4'	SS	G	7/19/2022	0944			3	G	X X X X X X
WELL_HEAD_PUMP_JACK@4'	SS	G	7/19/2022	0950			3	G	X X X X X X
N_TRENCH@3'	SS	G	7/19/2022	1002			3	G	X X X X X X
MID_N_TRENCH@3'	SS	G	7/19/2022	1006			3	G	X X X X X X

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used:	Wet	Blue	Dry	None	SHORT HOLDS PRESENT (<72 hours): Y N N/A
Packing Material Used:					Lab Tracking #: 519 6187 2184
Radchem sample(s) screened (<500 cpm):	Y	N	NA	Samples received via: FEDEX UPS Client Courier Pace Courier	

Relinquished by/Company: (Signature)

Date/Time:

07/19/22 1700

Received by/Company: (Signature)

Date/Time:

E226

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

All.....  
Template:  
Prelogin:  
PM:  
PB:

Trip Blank Received: Y N NA  
HCl MeOH TSP Other

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Lake Taer

Date/Time:

2022 08:15

Non Conformance(s): YES / NO Page: \_\_\_\_\_  
of: \_\_\_\_\_

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or  
MTJL Log-In Number Here

**ALL BOLD OUTLINED AREAS are for LAB USE ONLY**

Container Preservative Type \*\*

Lab Project Manager:

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact  N NA  
 Custody Signatures Present  N NA  
 Collector Signature Present  N NA  
 Bottles Intact  N NA  
 Correct Bottles  N NA  
 Sufficient Volume  N NA  
 Samples Received on Ice  Y N NA  
 VOA - Headspace Acceptable  Y N NA  
 USDA Regulated Soils  Y N NA  
 Samples in Holding Time  Y N NA  
 Residual Chlorine Present  Y N NA  
 Cl Strips: \_\_\_\_\_  
 Sample pH Acceptable  Y N NA  
 pH Strips: \_\_\_\_\_  
 Sulfide Present  Y N NA  
 Lead Acetate Strips: \_\_\_\_\_

LAB USE ONLY:  
Lab Sample # / Comments: LIS17244

-01

-02

-03

-04

-05

-06

-07

-08

-09

-10

Lab Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: \_\_\_\_\_  
 Cooler 1 Temp Upon Receipt: 20.6  
 Cooler 1 Therm Corr. Factor: 0C  
 Cooler 1 Corrected Temp: 0C  
 Comments: 10.4 + 0 = 10.4  
 0.237



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Z OF Z  
LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

Company: Confluence Compliance Companies	Billing Information: Info on file
Address: Info on file	
Report To: Chris McKisson	Email To: Info on file
Copy To: remediation@confluence-cc.com	Site Collection Info/Address:

Customer Project Name/Number: P&A	State: / County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET	
Phone: _____ Email: _____	Site/Facility ID #: Federal 1-30	Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Jana Nilsen	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required:	Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [x] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day	Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID Sample Prefix: 20220719-FED_1-30_FL	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns	Container Type: Plastic (P) or Glass (G)
			Date	Time	Date	Time			
PW TRENCH@3'	SS	G	7/19/2022	0920			3	G	

Customer Remarks / Special Conditions / Possible Hazards:		Type of Ice Used: Wet Blue Dry None	SHORT HOLDS PRESENT (<72 hours): Y N N/A
		Packing Material Used:	Lab Tracking #: <i>5219 G1C7 2189</i>
		Radchem sample(s) screened (<500 cpm): Y N NA	Samples received via: FEDEX UPS Client Courier Pace Courier

Relinquished by/Company: (Signature)	Date/Time: <i>07/20/22 1700</i>	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Table #:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature) <i>Carlo Tree</i>	Date/Time: <i>7-26 08:16</i>	Acctnum: Template: Prelogin: PM: PB:

ALL BOLD OUTLINED AREAS are for LAB USE ONLY							
Container Preservative Type **				Lab Project Manager:			
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other \_\_\_\_\_

Analyses								Lab Profile/Line:
TPH (GRO/DRO/ORO)	Table 915-1 VOC	Table 915-1 PAHs	EC, SAR, pH	Boron (hot water soluble)	Table 915-1 Metals	HOLD		Lab Sample Receipt Checklist:
						x		Custody Seals Present/Intact N NA
								Custody Signatures Present N NA
								Collector Signature Present N NA
								Bottles Intact N NA
								Correct Bottles N NA
								Sufficient Volume Y N NA
								Samples Received on Ice Y N NA
								VOA - Headspace Acceptable Y N NA
								USDA Regulated Soils Y N NA
								Samples in Holding Time Y N NA
								Residual Chlorine Present Y N NA
								Cl Strips: _____
								Sample pH Acceptable Y N NA
								pH Strips: _____
								Sulfide Present Y N NA
								Lead Acetate Strips: _____

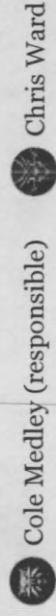
LAB USE ONLY:  
Lab Sample # / Comments:  
*U1517244*

-11

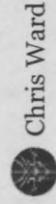
LAB Sample Temperature Info:  
Temp Blank Received: Y N NA  
Therm ID#: \_\_\_\_\_  
Cooler 1 Temp Upon Receipt: *18°C*  
Cooler 1 Therm Corr. Factor: *0°C*  
Cooler 1 Corrected Temp: *0°C*  
Comments: *18°C w/ 0°C*

Trip Blank Received: Y N NA  
HCL MeOH TSP Other

Non Conformance(s): YES / NO  
Page: \_\_\_\_\_  
of: \_\_\_\_\_

**07/21-L1517244-NCF CONCOMGJCO****R5****Time estimate:** oh**Grouping date:** 26 July 2022**Members**

Cole Medley (responsible)



Chris Ward

**Due on 25 July 2022 5:00 PM for target Done (Was done by Cole Medley at 26 July 2022 9:29 AM)**

- Parameter(s) past holding time  
 Temperature not in range  
 Improper container type  
 pH not in range  
 Insufficient sample volume  
 Sample is biphasic  
 Vials received with headspace  
 Broken container  
 Sufficient sample remains  
 If broken container: Insufficient packing material around container  
 If broken container: Insufficient packing material inside cooler  
 If broken container: Improper handling by carrier: \_\_\_\_\_  
 If broken container: Sample was frozen  
 If broken container: Container lid not intact  
 Client informed by Call  
 Client informed by Email  
 Client informed by Voicemail  
 Date/Time: 7/21/22@1329  
 PM initials: CMW  
 Client Contact: Chris McKisson \_\_\_\_\_

**Comments**

*Cole Medley* 21 July 2022 1:28 PM  
 OOT @ 18.4 Deg C; Ice Melted.

*Cole Medley* 26 July 2022 7:59 AM  
 Any Word?

*Chris Ward* 26 July 2022 9:28 AM  
 Client notified, please proceed

*Cole Medley* 26 July 2022 9:29 AM  
 Done.



# ANALYTICAL REPORT

May 25, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1494266  
Samples Received: 05/14/2022  
Project Number: FEDERAL 1-30  
Description: P & A  
Site: FEDERAL 1-30  
Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

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

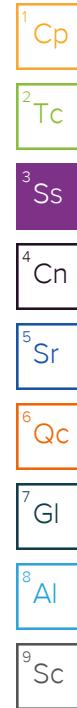
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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<b>Tc: Table of Contents</b>	<b>2</b>		<sup>2</sup> Tc
<b>Ss: Sample Summary</b>	<b>3</b>		<sup>3</sup> Ss
<b>Cn: Case Narrative</b>	<b>4</b>		<sup>4</sup> Cn
<b>Sr: Sample Results</b>	<b>5</b>		<sup>5</sup> Sr
<b>20220513-FED_1-30-BGN (1205) L1494266-01</b>	<b>5</b>		<sup>6</sup> Qc
<b>20220513-FED_1-30-BGN (1215) L1494266-02</b>	<b>6</b>		<sup>7</sup> Gl
<b>20220513-FED_1-30-BGN (1220) L1494266-03</b>	<b>7</b>		<sup>8</sup> Al
<b>20220513-FED_1-30-BGN (1235) L1494266-04</b>	<b>8</b>		<sup>9</sup> Sc
<b>Qc: Quality Control Summary</b>	<b>9</b>		
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# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
20220513-FED_1-30-BGN (1205) L1494266-01 Solid			Alex Slorby	05/13/22 12:05	05/14/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1866951	1	05/23/22 18:44	05/23/22 18:44	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1867789	1	05/23/22 03:24	05/23/22 11:59	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1866926	1	05/20/22 13:20	05/20/22 13:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1867394	1	05/21/22 09:52	05/22/22 12:27	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1867053	1	05/22/22 17:28	05/23/22 00:00	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1866967	1	05/22/22 17:20	05/24/22 11:40	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1867058	5	05/22/22 17:31	05/22/22 20:46	LD	Mt. Juliet, TN
20220513-FED_1-30-BGN (1215) L1494266-02 Solid			Collected by	Collected date/time	Received date/time	
20220513-FED_1-30-BGN (1215) L1494266-02 Solid			Alex Slorby	05/13/22 12:15	05/14/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1866951	1	05/23/22 18:46	05/23/22 18:46	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1867789	1	05/23/22 03:24	05/23/22 12:04	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1866926	1	05/20/22 13:20	05/20/22 13:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1867394	1	05/21/22 09:52	05/22/22 12:27	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1867053	1	05/22/22 17:28	05/23/22 00:14	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1866967	1	05/22/22 17:20	05/24/22 11:49	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1867058	5	05/22/22 17:31	05/22/22 21:03	LD	Mt. Juliet, TN
20220513-FED_1-30-BGN (1220) L1494266-03 Solid			Collected by	Collected date/time	Received date/time	
20220513-FED_1-30-BGN (1220) L1494266-03 Solid			Alex Slorby	05/13/22 12:20	05/14/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1866951	1	05/23/22 18:49	05/23/22 18:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1867789	1	05/23/22 03:24	05/23/22 12:15	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1866926	1	05/20/22 13:20	05/20/22 13:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1867394	1	05/21/22 09:52	05/22/22 12:27	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1867053	1	05/22/22 17:28	05/23/22 00:17	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1866967	1	05/22/22 17:20	05/24/22 11:52	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1867058	5	05/22/22 17:31	05/22/22 21:06	LD	Mt. Juliet, TN
20220513-FED_1-30-BGN (1235) L1494266-04 Solid			Collected by	Collected date/time	Received date/time	
20220513-FED_1-30-BGN (1235) L1494266-04 Solid			Alex Slorby	05/13/22 12:35	05/14/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1866951	1	05/24/22 13:49	05/24/22 13:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1867789	1	05/23/22 03:24	05/23/22 12:20	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1866926	1	05/20/22 13:20	05/20/22 13:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1867394	1	05/21/22 09:52	05/22/22 12:27	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1867053	1	05/22/22 17:28	05/23/22 00:19	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1866967	1	05/22/22 17:20	05/24/22 11:55	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1867058	5	05/22/22 17:31	05/22/22 21:10	LD	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	0.378		1	05/23/2022 18:44	WG1866951

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1867789

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1866926

<sup>3</sup> Ss

## Sample Narrative:

L1494266-01 WG1866926: 8.13 at 22.9C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1867394

<sup>5</sup> Sr

## Sample Narrative:

L1494266-01 WG1867394: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1867053
Cadmium	28.2		0.0852	0.500	1	05/23/2022 00:00	WG1867053
Copper	0.582		0.0471	0.500	1	05/23/2022 00:00	WG1867053
Lead	41.3		0.400	2.00	1	05/23/2022 00:00	WG1867053
Nickel	20.5	<u>O1</u>	0.208	0.500	1	05/23/2022 00:00	WG1867053
Selenium	24.1	<u>O1</u>	0.132	2.00	1	05/23/2022 00:00	WG1867053
Silver	U	<u>J3 J6</u>	0.764	2.00	1	05/23/2022 00:00	WG1867053
Zinc	91.6	<u>J6</u>	0.832	5.00	1	05/23/2022 00:00	WG1867053

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1866967

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg	<u>O1</u>	mg/kg	mg/kg			WG1867058

<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	1.38		1	05/23/2022 18:46	WG1866951

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.414	J P1	0.255	1.00	1	05/23/2022 12:04	WG1867789

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.25	T8	1	05/20/2022 13:25	WG1866926

<sup>3</sup> Ss

## Sample Narrative:

L1494266-02 WG1866926: 8.25 at 22.8C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	59.2		umhos/cm	umhos/cm		WG1867394

<sup>5</sup> Sr

## Sample Narrative:

L1494266-02 WG1867394: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	18.2		mg/kg	0.0852	0.500	1	05/23/2022 00:14	WG1867053
Cadmium	0.131	J	mg/kg	0.0471	0.500	1	05/23/2022 00:14	WG1867053
Copper	46.9		mg/kg	0.400	2.00	1	05/23/2022 00:14	WG1867053
Lead	21.2		mg/kg	0.208	0.500	1	05/23/2022 00:14	WG1867053
Nickel	13.1		mg/kg	0.132	2.00	1	05/23/2022 00:14	WG1867053
Selenium	U		mg/kg	0.764	2.00	1	05/23/2022 00:14	WG1867053
Silver	U		mg/kg	0.127	1.00	1	05/23/2022 00:14	WG1867053
Zinc	56.3		mg/kg	0.832	5.00	1	05/23/2022 00:14	WG1867053

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	0.502		mg/l	0.0167	0.200	1	05/24/2022 11:49	WG1866967

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	0.843	J	mg/kg	0.100	1.00	5	05/22/2022 21:03	WG1867058

<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	0.306		1	05/23/2022 18:49	WG1866951

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.344	J	0.255	1.00	1	05/23/2022 12:15	WG1867789

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.52	T8	1	05/20/2022 13:25	WG1866926

<sup>3</sup> Ss

## Sample Narrative:

L1494266-03 WG1866926: 8.52 at 22.9C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	136		umhos/cm	umhos/cm		WG1867394

<sup>5</sup> Sr

## Sample Narrative:

L1494266-03 WG1867394: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	38.1		mg/kg	0.0852	0.500	1	05/23/2022 00:17	WG1867053
Cadmium	0.344	J	mg/kg	0.0471	0.500	1	05/23/2022 00:17	WG1867053
Copper	33.6		mg/kg	0.400	2.00	1	05/23/2022 00:17	WG1867053
Lead	18.2		mg/kg	0.208	0.500	1	05/23/2022 00:17	WG1867053
Nickel	18.0		mg/kg	0.132	2.00	1	05/23/2022 00:17	WG1867053
Selenium	U		mg/kg	0.764	2.00	1	05/23/2022 00:17	WG1867053
Silver	U		mg/kg	0.127	1.00	1	05/23/2022 00:17	WG1867053
Zinc	74.3		mg/kg	0.832	5.00	1	05/23/2022 00:17	WG1867053

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	0.283		mg/l	0.0167	0.200	1	05/24/2022 11:52	WG1866967

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	2.52		mg/kg	0.100	1.00	5	05/22/2022 21:06	WG1867058

<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	2030		1	05/24/2022 13:49	WG1866951

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.298	J	0.255	1.00	1	05/23/2022 12:20	WG1867789

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	10.1	T8	1	05/20/2022 13:25	WG1866926

<sup>3</sup> Ss

## Sample Narrative:

L1494266-04 WG1866926: 10.1 at 22.8C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	20200		umhos/cm	umhos/cm		WG1867394

<sup>5</sup> Sr

## Sample Narrative:

L1494266-04 WG1867394: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	36.1		mg/kg	0.0852	0.500	1	05/23/2022 00:19	WG1867053
Cadmium	0.292	J		0.0471	0.500	1	05/23/2022 00:19	WG1867053
Copper	23.0			0.400	2.00	1	05/23/2022 00:19	WG1867053
Lead	12.5			0.208	0.500	1	05/23/2022 00:19	WG1867053
Nickel	12.9			0.132	2.00	1	05/23/2022 00:19	WG1867053
Selenium	U			0.764	2.00	1	05/23/2022 00:19	WG1867053
Silver	U			0.127	1.00	1	05/23/2022 00:19	WG1867053
Zinc	54.6			0.832	5.00	1	05/23/2022 00:19	WG1867053

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	6.29		mg/l	0.0167	0.200	1	05/24/2022 11:55	WG1866967

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	6.76		mg/kg	0.100	1.00	5	05/22/2022 21:10	WG1867058

<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Method Blank (MB)

(MB) R3795014-1 05/23/22 10:44

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

## L1494266-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1494266-02 05/23/22 12:04 • (DUP) R3795014-3 05/23/22 12:10

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	0.414	0.306	1	30.0	J_P1	20

## L1495823-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1495823-02 05/23/22 13:22 • (DUP) R3795014-8 05/23/22 13:27

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

## Laboratory Control Sample (LCS)

(LCS) R3795014-2 05/23/22 10:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	9.56	95.6	80.0-120	

## L1495416-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1495416-01 05/23/22 12:36 • (MS) R3795014-4 05/23/22 12:51 • (MSD) R3795014-5 05/23/22 12:56

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 %
Hexavalent Chromium	20.0	0.444	15.4	17.4	74.9	85.0	1	75.0-125	J_6		12.3	20

## L1495416-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1495416-01 05/23/22 12:36 • (MS) R3795014-6 05/23/22 13:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	685	0.444	617	90.0	50	75.0-125	

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)

## L1494261-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1494261-21 05/20/22 13:25 • (DUP) R3794440-2 05/20/22 13:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	pH	su		%		%
pH	8.83	8.82	1	0.113		1

## Sample Narrative:

OS: 8.83 at 23.4C

DUP: 8.82 at 23.6C

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

## L1494266-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1494266-01 05/20/22 13:25 • (DUP) R3794440-3 05/20/22 13:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	su	su		%		%
pH	8.13	8.09	1	0.493		1

## Sample Narrative:

OS: 8.13 at 22.9C

DUP: 8.09 at 23C

## Laboratory Control Sample (LCS)

(LCS) R3794440-1 05/20/22 13:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	su	su	%	%	
pH	10.0	9.93	99.3	99.0-101	

## Sample Narrative:

LCS: 9.93 at 23.3C

WG1867394

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)

## Method Blank (MB)

(MB) R3794617-1 05/22/22 12:27

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

## Sample Narrative:

BLANK: at 25C

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

## L1494261-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1494261-21 05/22/22 12:27 • (DUP) R3794617-3 05/22/22 12:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	3470	3810	1	9.34		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1494266-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1494266-01 05/22/22 12:27 • (DUP) R3794617-4 05/22/22 12:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	120	111	1	8.33		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3794617-2 05/22/22 12:27

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	268	279	104	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)

## Method Blank (MB)

(MB) R3794756-1 05/22/22 23:54

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3794756-2 05/22/22 23:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	84.2	84.2	80.0-120	
Cadmium	100	80.9	80.9	80.0-120	
Copper	100	81.9	81.9	80.0-120	
Lead	100	81.4	81.4	80.0-120	
Nickel	100	82.3	82.3	80.0-120	
Selenium	100	81.7	81.7	80.0-120	
Silver	20.0	16.1	80.7	80.0-120	
Zinc	100	81.0	81.0	80.0-120	

## L1494266-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1494266-01 05/23/22 00:00 • (MS) R3794756-5 05/23/22 00:08 • (MSD) R3794756-6 05/23/22 00:11

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	28.2	113	116	84.8	87.4	1	75.0-125		2.28	20
Cadmium	100	0.582	87.6	86.3	87.0	85.7	1	75.0-125		1.50	20
Copper	100	41.3	124	134	82.7	92.6	1	75.0-125		7.69	20
Lead	100	20.5	111	112	90.2	91.0	1	75.0-125		0.792	20
Nickel	100	24.1	116	117	91.4	93.3	1	75.0-125		1.66	20
Selenium	100	U	67.0	82.2	67.0	82.2	1	75.0-125	J6	J3	20.3
Silver	20.0	U	17.6	17.3	88.0	86.4	1	75.0-125			1.85
Zinc	100	91.6	159	177	67.5	85.8	1	75.0-125	J6		10.9

WG1866967

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

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)

## Method Blank (MB)

(MB) R3795575-1 05/24/22 11:15

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

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

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

(LCS) R3795575-2 05/24/22 11:17 • (LCSD) R3795575-3 05/24/22 11:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.02	1.01	102	101	80.0-120			0.513	20

WG1867058

Metals (ICPMS) by Method 6020

## QUALITY CONTROL SUMMARY

[L1494266-01,02,03,04](#)

## Method Blank (MB)

(MB) R3794688-1 05/22/22 20:40

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

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

## Laboratory Control Sample (LCS)

(LCS) R3794688-2 05/22/22 20:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	80.1	80.1	80.0-120	

## L1494266-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1494266-01 05/22/22 20:46 • (MS) R3794688-5 05/22/22 20:56 • (MSD) R3794688-6 05/22/22 21:00

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 %
Arsenic	100	1.47	85.1	82.7	83.7	81.3	5	75.0-125			2.85	20

# 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.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>6</sup> Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>7</sup> Gl
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.	<sup>8</sup> Al
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.	<sup>9</sup> Sc
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.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Confluence Compliance Companies

Address: Info on file

Report To: Chris McKisson

Copy To: remediation@confluence-cc.com

Customer Project Name/Number: P&A

Phone: Site/Facility ID #: Federal 1-30

Email: Collected By (print): Alex Slorby

Collected By (signature): *Alex Slorby*

Sample Disposal: Rush: (Expedite Charges Apply)

[ ] Dispose as appropriate [ ] Same Day [ ] Next Day

[ ] Return [ ] 2 Day [ ] 3 Day

[ ] Archive: [ ] 4 Day [ ] 5 Day

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW),

Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix \*

Comp / Grab

Collected (or Composite Start)

Composite End

Date Time Date Time

20220513-FED\_1-30-BGN(1205)

SL G 5/13/2022 1205

20220513-FED\_1-30-BGN(1215)

SL G 5/13/2022 1215

20220513-FED\_1-30-BGN(1220)

SL G 5/13/2022 1220

20220513-FED\_1-30-BGN(1235)

SL G 5/13/2022 1235

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

## ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Container Preservative Type \*\*

Lab Project Manager:

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

## Analyses

Lab Profile/Line: **NA**

Lab Sample Receipt Checklist:  
Custody Seals Present/Intact **Y N**  
Custody Signatures Present **Y N**  
Collector Signature Present **Y N**  
Bottles Intact **Y N**  
Correct Bottles **Y N**  
Sufficient Volume **Y N**  
Samples Received on Ice **Y N**  
VOA - Headspace Acceptable **Y N**  
USDA Regulated Soils **Y N**  
Samples in Holding Time **Y N**  
Residual Chlorine Present **Y N**  
Cl Strips: **Y N**  
Sample pH Acceptable **Y N**  
pH Strips: **Y N**  
Sulfide Present **Y N**  
Lead Acetate Strips: **Y N**

LAB USE ONLY:  
Lab Sample # / Comments:

**U4942d6**  
-01  
-02  
-03  
-04

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: **5433 8386 0914**

Samples received via:

FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:

Temp Blank Received: Y N

Therm ID#:

Cooler 1 Temp Upon Receipt:

Cooler 1 Therm Corr. Factor:

Cooler 1 Corrected Temp:

Comments:

Relinquished by/Company: (Signature) *Alex Slorby*

Date/Time: **5/13/2022 1615**

Received by/Company: (Signature)

Date/Time: **5/13/2022 1615**

**D042**

Relinquished by/Company: (Signature) *Alex Slorby*

Date/Time: **5/13/22 1700**

Received by/Company: (Signature)

Date/Time:

Acctnum: **00000000000000000000000000000000**

Template: **00000000000000000000000000000000**

Prelogin: **00000000000000000000000000000000**

PM: **00000000000000000000000000000000**

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time: **5/13/22 0915**

Non Conformance(s): **00000000000000000000000000000000**

Page: **00000000000000000000000000000000**



# ANALYTICAL REPORT

August 12, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1516275  
Samples Received: 07/19/2022  
Project Number:  
Description: Federal 1-30 Backgrounds  
Site: FEDERAL 1-30  
Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

Entire Report Reviewed By:

Chris Ward  
Project Manager

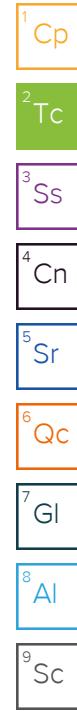
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory 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](http://www.pacenational.com)

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# SAMPLE SUMMARY

		Collected by	Collected date/time	Received date/time
220713-FED_1-30BG(0930)@1' L1516275-01 Solid		Andrew Smith	07/13/22 09:30	07/19/22 10:15

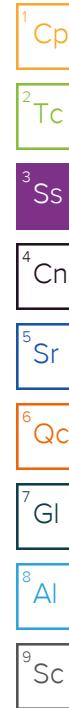
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:56	08/01/22 17:56	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:21	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899278	1	07/22/22 08:00	07/22/22 10:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1905586	1	08/04/22 14:06	08/05/22 14:33	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1905637	5	08/04/22 13:53	08/05/22 13:57	JPD	Mt. Juliet, TN

220713-FED_1-30BG(0935)@0.5' L1516275-02 Solid	Collected by	Collected date/time	Received date/time
	Andrew Smith	07/13/22 09:35	07/19/22 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 17:59	08/01/22 17:59	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:26	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899278	1	07/22/22 08:00	07/22/22 10:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1905586	1	08/04/22 14:06	08/05/22 14:36	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:23	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1905637	5	08/04/22 13:53	08/05/22 14:00	JPD	Mt. Juliet, TN

220713-FED_1-30BG(0945)@0.5' L1516275-03 Solid	Collected by	Collected date/time	Received date/time
	Andrew Smith	07/13/22 09:45	07/19/22 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1902326	1	08/01/22 18:01	08/01/22 18:01	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1904736	1	08/10/22 23:49	08/12/22 09:31	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1899278	1	07/22/22 08:00	07/22/22 10:00	GI	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1901909	1	07/31/22 07:01	07/31/22 09:54	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1905586	1	08/04/22 14:06	08/05/22 14:44	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1903564	1	07/31/22 17:02	08/05/22 00:26	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1905637	5	08/04/22 13:53	08/05/22 14:10	JPD	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	55.3		1	08/01/2022 17:56	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1899278

<sup>3</sup> Ss

## Sample Narrative:

L1516275-01 WG1899278: 9.57 at 24.6C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

<sup>5</sup> Sr

## Sample Narrative:

L1516275-01 WG1901909: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1905586
Cadmium	44.6		0.0852	0.500	1	08/05/2022 14:33	WG1905586
Copper	0.281	J	0.0471	0.500	1	08/05/2022 14:33	WG1905586
Lead	10.0		0.400	2.00	1	08/05/2022 14:33	WG1905586
Nickel	7.66		0.208	0.500	1	08/05/2022 14:33	WG1905586
Selenium	7.28		0.132	2.00	1	08/05/2022 14:33	WG1905586
Silver	U		0.764	2.00	1	08/05/2022 14:33	WG1905586
Zinc	U		0.127	1.00	1	08/05/2022 14:33	WG1905586

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1905637

<sup>9</sup> Sc

## SAMPLE RESULTS - 02

L1516275

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	308		1	08/01/2022 17:59	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su	T8	1	07/22/2022 10:00	WG1899278

## Sample Narrative:

L1516275-02 WG1899278: 9.84 at 24.3C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

## Sample Narrative:

L1516275-02 WG1901909: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1905586
Cadmium	34.9		0.0852	0.500	1	08/05/2022 14:36	WG1905586
Copper	0.210	J	0.0471	0.500	1	08/05/2022 14:36	WG1905586
Lead	7.56		0.400	2.00	1	08/05/2022 14:36	WG1905586
Nickel	5.95		0.208	0.500	1	08/05/2022 14:36	WG1905586
Selenium	5.97		0.132	2.00	1	08/05/2022 14:36	WG1905586
Silver	U		0.764	2.00	1	08/05/2022 14:36	WG1905586
Zinc	U		0.127	1.00	1	08/05/2022 14:36	WG1905586

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1905637

## SAMPLE RESULTS - 03

L1516275

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	306		1	08/01/2022 18:01	WG1902326

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1904736

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1899278

## Sample Narrative:

L1516275-03 WG1899278: 10.25 at 24.2C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1901909

## Sample Narrative:

L1516275-03 WG1901909: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1905586
Cadmium	95.6		0.0852	0.500	1	08/05/2022 14:44	WG1905586
Copper	0.172	J	0.0471	0.500	1	08/05/2022 14:44	WG1905586
Lead	8.71		0.400	2.00	1	08/05/2022 14:44	WG1905586
Nickel	6.62		0.208	0.500	1	08/05/2022 14:44	WG1905586
Selenium	5.91		0.132	2.00	1	08/05/2022 14:44	WG1905586
Silver	U		0.764	2.00	1	08/05/2022 14:44	WG1905586
Zinc	U		0.127	1.00	1	08/05/2022 14:44	WG1905586
	24.8		0.832	5.00	1	08/05/2022 14:44	WG1905586

<sup>1</sup> Cp

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1903564

<sup>2</sup> Tc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1905637

<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

WG1904736

Wet Chemistry by Method 7199

## QUALITY CONTROL SUMMARY

L1516275-01,02,03

## Method Blank (MB)

(MB) R3825663-1 08/12/22 07:43

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

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

## L1514822-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1514822-03 08/12/22 08:29 • (DUP) R3825663-7 08/12/22 08:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Hexavalent Chromium	1.15	1.17	1	1.95		20

## L1516275-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1516275-03 08/12/22 09:31 • (DUP) R3825663-8 08/12/22 09:36

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

## Laboratory Control Sample (LCS)

(LCS) R3825663-2 08/12/22 07:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	10.5	105	80.0-120	

## L1514822-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-3 08/12/22 08:03 • (MSD) R3825663-4 08/12/22 08:08

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 %
Hexavalent Chromium	20.0	1.16	20.8	20.6	98.2	97.1	1	75.0-125			1.04	20

## L1514822-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1514822-01 08/12/22 07:55 • (MS) R3825663-6 08/12/22 08:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	643	1.16	798	124	50	75.0-125	

ACCOUNT:

Confluence Compliance Companies - CO

PROJECT:

SDG:

L1516275

DATE/TIME:

08/12/22 16:06

PAGE:

8 of 18

## L1516296-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1516296-01 07/22/22 10:00 • (DUP) R3818103-2 07/22/22 10:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	8.57	8.53	1	0.468	1	

## Sample Narrative:

OS: 8.57 at 24.4C

DUP: 8.53 at 24.2C

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

## L1516557-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1516557-01 07/22/22 10:00 • (DUP) R3818103-3 07/22/22 10:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU		%		%
pH	7.01	7.02	1	0.143	1	

## Sample Narrative:

OS: 7.01 at 24.2C

DUP: 7.02 at 24.3C

## Laboratory Control Sample (LCS)

(LCS) R3818103-1 07/22/22 10:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.90	99.0	99.0-101	

## Sample Narrative:

LCS: 9.9 at 23.5C

WG1901909

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

L1516275-01,02,03

## Method Blank (MB)

(MB) R3821000-1 07/31/22 09:54

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

## Sample Narrative:

BLANK: at 25C

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

## L1516250-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1516250-16 07/31/22 09:54 • (DUP) R3821000-3 07/31/22 09:54

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	2250	2440	1	8.01		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1516291-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1516291-05 07/31/22 09:54 • (DUP) R3821000-4 07/31/22 09:54

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	238	245	1	2.98		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3821000-2 07/31/22 09:54

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	286	271	94.7	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

L1516275-01,02,03

## Method Blank (MB)

(MB) R3823273-1 08/05/22 14:12

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3823273-2 08/05/22 14:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	101	101	80.0-120	
Cadmium	100	96.6	96.6	80.0-120	
Copper	100	101	101	80.0-120	
Lead	100	97.1	97.1	80.0-120	
Nickel	100	98.9	98.9	80.0-120	
Selenium	100	99.6	99.6	80.0-120	
Silver	20.0	18.0	90.2	80.0-120	
Zinc	100	97.2	97.2	80.0-120	

## L1521215-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1521215-01 08/05/22 14:17 • (MS) R3823273-5 08/05/22 14:25 • (MSD) R3823273-6 08/05/22 14:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	80.7	181	183	101	102	1	75.0-125		0.951	20
Cadmium	100	0.262	96.0	96.2	95.8	95.9	1	75.0-125		0.156	20
Copper	100	14.3	116	117	102	102	1	75.0-125		0.637	20
Lead	100	15.8	114	115	98.7	99.6	1	75.0-125		0.750	20
Nickel	100	13.0	114	115	101	102	1	75.0-125		0.423	20
Selenium	100	U	99.2	99.7	99.2	99.7	1	75.0-125		0.490	20
Silver	20.0	U	18.1	18.2	90.6	91.1	1	75.0-125		0.623	20
Zinc	100	51.6	145	144	93.1	92.2	1	75.0-125		0.643	20

WG1903564

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

## QUALITY CONTROL SUMMARY

[L1516275-01,02,03](#)

## Method Blank (MB)

(MB) R3822918-1 08/04/22 23:18

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

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

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

(LCS) R3822918-2 08/04/22 23:20 • (LCSD) R3822918-3 08/04/22 23:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.04	1.01	104	101	80.0-120			2.88	20

## QUALITY CONTROL SUMMARY

L1516275-01,02,03

## Method Blank (MB)

(MB) R3823127-1 08/05/22 13:30

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

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

## Laboratory Control Sample (LCS)

(LCS) R3823127-2 08/05/22 13:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	85.9	85.9	80.0-120	

## L1521215-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1521215-01 08/05/22 13:37 • (MS) R3823127-5 08/05/22 13:47 • (MSD) R3823127-6 08/05/22 13:50

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 %
Arsenic	100	6.09	91.4	87.6	85.3	81.5	5	75.0-125			4.22	20

# 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.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>6</sup> Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>7</sup> Gl
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.	<sup>8</sup> Al
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.	<sup>9</sup> Sc
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.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
**Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields**

Company: Confluence Compliance Companies, LLC.		Billing Information: Info on file						LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here										
Address: Info on file																		
Report To: Chris McKisson		Email To: info on file						ALL BOLD OUTLINED AREAS are for LAB USE ONLY										
Copy To: Chris McKisson, remediation@confluence-cc.com		Site Collection Info/Address:						Container Preservative Type **										
Customer Project Name/Number: Federal 1-30 Backgrounds		State: CO / County/City: Rio Blanco Time Zone Collected: [ ] PT [X] MT [ ] CT [ ] ET						Lab Project Manager:										
Phone:	Site/Facility ID #: Federal 1-30			Compliance Monitoring? [ ] Yes [X] No			Analyses						Lab Profile/Line:					
Email:													Lab Sample Receipt Checklist:					
Collected By (print): Andrew Smith	Purchase Order #:			DW PWS ID #:									Custody Seals Present/Intact Y N NA					
	Quote #:			DW Location Code:									Custody Signatures Present Y N NA					
Collected By (signature): <i>A. Smith</i>	Turnaround Date Required: RUSH			Immediately Packed on Ice: [X] Yes [ ] No									Collector Signature Present Y N NA					
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day			Field Filtered (if applicable): [ ] Yes [ ] No									Bottles Intact Y N NA					
													Correct Bottles Y N NA					
													Sufficient Volume Y N NA					
													Samples Received on Ice Y N NA					
													VOA - Headspace Acceptable Y N NA					
													USDA Regulated Soils Y N NA					
													Samples in Holding Time Y N NA					
													Residual Chlorine Present Y N NA					
													Cl Strips: _____					
													Sample pH Acceptable Y N NA					
													pH Strips: _____					
													Sulfide Present Y N NA					
													Lead Acetate Strips: _____					
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)														LAB USE ONLY: Lab Sample # / Comments: <i>U1516275</i>				
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns	Container Type: Plastic (P) or Glass (G)	Table 915-1 VOCs	TPH (ORO, GRO, DRO)	Table 915-1 Metal's	Table 915-1 PAHs	pH, EC, SAR	Boron (Hot Water Soluble Soil)			
			Date	Time	Date	Time				X	X	X	X					
220713-Fed_1-30-BG(0930)@1'	SL	G	7/13/2022	0930			1	P										
220713-Fed_1-30-BG(0935)@0.5'	SL	G	7/13/2022	0935			1	P										
220713-Fed_1-30-BG(0945)@0.5'	SL	G	7/13/2022	0945			1	P										
Customer Remarks / Special Conditions / Possible Hazards:			Type of Ice Used: Wet Blue Dry None				SHORT HOLDS PRESENT (<72 hours): Y N N/A				LAB Sample Temperature Info:							
			Packing Material Used:				Lab Tracking #:				Temp Blank Received: Y N NA							
			Radchern sample(s) screened (<500 cpm): Y N NA				Samples received via:				Therm ID#:							
							FEDEX UPS Client Courier Pace Courier				Cooler 1 Temp Upon Receipt: ____°C							
											Cooler 1 Therm Corr. Factor: ____°C							
											Cooler 1 Corrected Temp: ____°C							
											Comments: <i>2.8 to 2.8</i>							
Relinquished by/Company: (Signature) <i>A. Smith</i>			Date/Time: 7/18/21:45		Received by/Company: (Signature)			Date/Time:		F183			Trip Blank Received: Y N NA					
													HCL MeOH TSP Other					
Relinquished by/Company: (Signature) <i>A. Smith</i>			Date/Time: 7/18 13:00		Received by/Company: (Signature)			Date/Time:		Acctnum: _____			Non Conformance(s): YES / NO					
										Template: _____			Page: _____					
Relinquished by/Company: (Signature)			Date/Time:		Received by/Company: (Signature)			Date/Time: 7/19/22 10:15		Prelogin: _____			of: _____					
										PM: _____								
										PB: _____								

## 07/19-L1516275-NCF CONCOMGJCO

R5

**Time estimate:** oh      **Time spent:** oh      **Grouping date:** 19 July 2022

### Members



Cole Medley (responsible)



Chris Ward

**Due-on-22-July-2022 5:00 PM for target Done** (Was done by Cole Medley at 19 July 2022 3:39 PM)

- Login Clarification needed
- Chain of custody is incomplete
- Please specify Metals requested
- Please specify TCLP requested
- Received additional samples not listed on COC
- Sample IDs on containers do not match IDs on COC
- Client did not "X" analysis
- Chain of Custody is missing
- If no COC: Received by: \_\_\_\_\_
- If no COC: Date/Time: \_\_\_\_\_
- If no COC: Temp./Cont.Rec./pH: \_\_\_\_\_
- If no COC: Carrier: \_\_\_\_\_
- If no COC: Tracking #: \_\_\_\_\_
- Client informed by call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: 7/19/22@1534
- PM initials: CMW
- Client Contact: Andy Smith

### Comments

Cole Medley

19 July 2022 2:24 PM

Times listed on containers don't match COC.

IDs:

220713-FED\_1-3oBG(0930)@1' 07/13/22 0930(COC)= 0900 (Container)

Logged per COC.

220713-FED\_1-3oBG(0935)@0.5' 07/13/22 0935(COC)= 0905 (Container)

Logged per COC.

220713-FED\_1-3oBG(0945)@0.5' 07/13/22 0945(COC)= 0910 (Container)

Logged per COC.

Chris Ward

Please log per COC

19 July 2022 3:36 PM

Cole Medley

Done.

19 July 2022 3:38 PM



# ANALYTICAL REPORT

October 20, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1541683  
Samples Received: 09/30/2022  
Project Number: FEDERAL 1-30  
Description: Federal 1-30  
Site: FEDERAL 1-30  
Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

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](http://www.pacenational.com)

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Cn: Case Narrative	4	<sup>4</sup> Cn
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FL_WELL_HEAD_PUMP_JACK @ 7' L1541683-01	5	<sup>6</sup> Qc
Qc: Quality Control Summary	6	<sup>7</sup> Gl
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# SAMPLE SUMMARY

FL_WELL_HEAD_PUMP_JACK @ 7' L1541683-01 Solid			Collected by Alex Slorby	Collected date/time 09/28/22 08:45	Received date/time 09/30/22 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 06:25	ARD

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

# 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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## 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	10/13/2022 06:25	<a href="#">WG1939667</a>	<sup>1</sup> Cp <sup>2</sup> Tc <sup>3</sup> Ss <sup>4</sup> Cn <sup>5</sup> Sr <sup>6</sup> Qc <sup>7</sup> Gl <sup>8</sup> Al <sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

[L1541683-01](#)

## Method Blank (MB)

(MB) R3850788-1 10/13/22 02:48

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

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

## L1541423-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1541423-01 10/13/22 06:08 • (DUP) R3850788-3 10/13/22 06:15

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

## L1541862-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1541862-02 10/13/22 09:47 • (DUP) R3850788-8 10/13/22 10:04

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

## Laboratory Control Sample (LCS)

(LCS) R3850788-2 10/13/22 02:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Hexavalent Chromium	10.0	9.98	99.8	80.0-120	

## L1541860-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541860-03 10/13/22 09:03 • (MS) R3850788-5 10/13/22 09:14 • (MSD) R3850788-6 10/13/22 09:19

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 %
Hexavalent Chromium	20.0	U	18.6	17.9	92.8	89.5	1	75.0-125			3.63	20

<sup>1</sup>Cp

## L1541860-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1541860-03 10/13/22 09:03 • (MS) R3850788-7 10/13/22 09:24

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	641	U	582	90.9	50	75.0-125	

<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>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.
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
The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or  
MTJL Log-in Number Here

D077

Company: Confluence Compliance Companies		Billing Information: Info on file																	
Address: Info on file																			
Report To: Chris McKisson		Email To: Info on file																	
Copy To: remediation@confluence-cc.com		Site Collection Info/Address:																	
Customer Project Name/Number: P&A		State: County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET																	
Phone: _____		Site/Facility ID #: Federal 1-30	Compliance Monitoring? [ ] Yes [X] No																
Email: _____																			
Collected By (print): Alex Slorby		Purchase Order #: _____	DW PWS ID #: _____																
Collected By (signature): <i>Alex Slorby</i>		Quote #: _____	DW Location Code: _____																
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____		Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day	Immediately Packed on Ice: [X] Yes [ ] No																
			Field Filtered (if applicable): [ ] Yes [ ] No																
			Analysis: _____																
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)																			
Customer Sample ID Sample Prefix: 20220928-FED_1-30-		Matrix * SL	Comp / Grab G	Collected (or Composite Start) Date 9/28/2022 Time 0845		Composite End Date _____ Time _____		Res Cl 3	# of Ctns. P/G X	Container Type: Plastic (P) or Glass (G) Cr6	Analyses						Lab Profile/Line:		
FL WELL HEAD PUMP JACK@7'																			
Customer Remarks / Special Conditions / Possible Hazards:		Type of Ice Used: Wet Blue Dry None				SHORT HOLDS PRESENT (<72 hours): Y N N/A				LAB Sample Temperature Info:									
		Packing Material Used:				Lab Tracking #:				Temp Blank Received: Y N NA Therm ID#: <i>NS Mo</i>									
		Radchem sample(s) screened (<500 cpm): Y N NA				Samples received via: FEDEX UPS Client Courier Pace Courier				Cooler 1 Temp Upon Receipt: <i>60</i> °C Cooler 1 Therm Corr. Factor: <i>.20</i> Cooler 1 Corrected Temp: <i>7</i> °C Comments: _____									
Relinquished by/Company: (Signature) <i>Alex Slorby</i>		Date/Time: <i>9/29/22 1600</i>	Received by/Company: (Signature) <i>K</i>				Date/Time:		MTJL LAB USE ONLY		Trip Blank Received: Y N NA HCL MeOH TSP Other								
Relinquished by/Company: (Signature) <i>[Signature]</i>		Date/Time: <i>9/29/22 1600</i>	Received by/Company: (Signature)				Date/Time:		Table #:		Non Conformance(s): YES / NO								
Relinquished by/Company: (Signature)		Date/Time:	Received by/Company: (Signature) <i>D. Ramsey</i>				Date/Time: <i>09-30-21 1000</i>		Acctnum: Template: Prelogin: PM: PB:		Page: _____ of: _____								

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Container Preservative Type \*\* Lab Project Manager:

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other \_\_\_\_\_

Lab Sample Receipt Checklist:  
Custody Seals Present/Intact Y N NA  
Custody Signatures Present Y N NA  
Collector Signature Present Y N NA  
Bottles Intact Y N NA  
Correct Bottles Y N NA  
Sufficient Volume Y N NA  
Samples Received on Ice Y N NA  
VOA - Headspace Acceptable Y N NA  
USDA Regulated Soils Y N NA  
Samples in Holding Time Y N NA  
Residual Chlorine Present Y N NA  
Cl Strips: \_\_\_\_\_  
Sample pH Acceptable Y N NA  
pH Strips: \_\_\_\_\_  
Sulfide Present Y N NA  
Lead Acetate Strips: \_\_\_\_\_

LAB USE ONLY:  
Lab Sample #: *U541683* Comments:  
*-01*



# ANALYTICAL REPORT

November 11, 2022

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Confluence Compliance Companies - CO

Sample Delivery Group: L1551283  
Samples Received: 10/27/2022  
Project Number: FED 1-30  
Description: Fed 1-30 Backgrounds  
Site: FEDERAL 1-30  
Report To: Chris McKisson  
403 ½ Rockwood Lane  
Grand Junction, CO 81507

Entire Report Reviewed By:

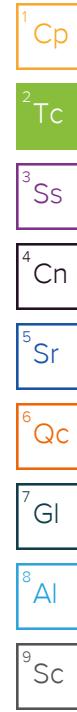
Chris Ward  
Project Manager

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Pace Analytical National

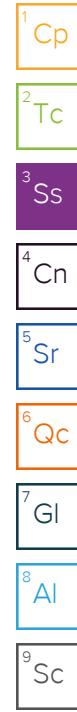
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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<b>Sr: Sample Results</b>	<b>6</b>	
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221025-FED_1-30-BG01@12.5'-15' L1551283-02	7	
221025-FED_1-30-BG02@12.5'-15' L1551283-03	8	
221025-FED_1-30-BG02@17.5'-20' L1551283-04	9	
221025-FED_1-30-BG03@12.5'-15' L1551283-05	10	 <sup>2</sup> Tc
221025-FED_1-30-BG03@17.5'-20' L1551283-06	11	
221025-FED_1-30-BG04@7.5'-10' L1551283-07	12	
221025-FED_1-30-BG04@12.5'-15' L1551283-08	13	
221025-FED_1-30-BG04@17.5'-20' L1551283-09	14	
<b>Qc: Quality Control Summary</b>	<b>15</b>	
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Wet Chemistry by Method 9045D	17	
Wet Chemistry by Method 9050AMod	18	
Metals (ICP) by Method 6010B	21	 <sup>3</sup> Ss
Metals (ICP) by Method 6010B-NE493 Ch 2	22	
Metals (ICPMS) by Method 6020	23	
<b>Gl: Glossary of Terms</b>	<b>24</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>25</b>	
<b>Sc: Sample Chain of Custody</b>	<b>26</b>	

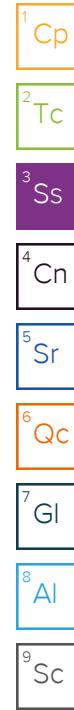
# SAMPLE SUMMARY

			Collected by A. Smith	Collected date/time 10/25/22 09:10	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:32	11/04/22 15:32	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 09:33	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1951039	1	10/29/22 07:50	10/29/22 10:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:16	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 12:59	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:29	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG01@7.5'-10' L1551283-01 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 09:25	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:35	11/04/22 15:35	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 09:38	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1952173	1	11/01/22 09:57	11/01/22 13:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:19	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:02	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:33	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG02@12.5'-15' L1551283-02 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 09:45	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:37	11/04/22 15:37	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 09:43	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1957628	1	11/10/22 16:54	11/11/22 07:23	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:22	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:05	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:36	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG02@12.5'-15' L1551283-03 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 09:45	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:40	11/04/22 15:40	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 10:04	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1951039	1	10/29/22 07:50	10/29/22 10:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:30	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:08	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:45	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG02@17.5'-20' L1551283-04 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 09:50	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:40	11/04/22 15:40	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 10:04	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1951039	1	10/29/22 07:50	10/29/22 10:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:30	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:08	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:45	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG03@12.5'-15' L1551283-05 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 10:10	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:43	11/04/22 15:43	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 10:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1952173	1	11/01/22 09:57	11/01/22 13:00	NTG	Mt. Juliet, TN



# SAMPLE SUMMARY

			Collected by A. Smith	Collected date/time 10/25/22 10:10	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:33	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:11	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:49	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG03@17.5'-20' L1551283-06 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 10:15	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:46	11/04/22 15:46	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952779	1	11/02/22 17:53	11/03/22 10:35	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1952173	1	11/01/22 09:57	11/01/22 13:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:36	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:14	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:52	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG04@7.5'-10' L1551283-07 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 10:45	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 15:49	11/04/22 15:49	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952780	1	11/02/22 21:04	11/03/22 11:36	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1952173	1	11/01/22 09:57	11/01/22 13:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:39	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:17	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:55	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG04@12.5'-15' L1551283-08 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 10:50	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953791	1	11/04/22 14:20	11/04/22 14:20	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952780	1	11/02/22 21:04	11/03/22 11:41	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1951039	1	10/29/22 07:50	10/29/22 10:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:42	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:20	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 18:58	LD	Mt. Juliet, TN
<b>221025-FED_1-30-BG04@17.5'-20' L1551283-09 Solid</b>			Collected by A. Smith	Collected date/time 10/25/22 10:55	Received date/time 10/27/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1953886	1	11/04/22 22:25	11/04/22 22:25	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1952780	1	11/02/22 21:04	11/03/22 11:46	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1953399	1	11/04/22 06:16	11/04/22 08:16	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1952173	1	11/01/22 09:57	11/01/22 13:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1950971	1	11/06/22 18:46	11/08/22 04:45	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1950671	1	11/02/22 14:54	11/08/22 13:29	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1950975	5	11/06/22 18:58	11/07/22 19:01	LD	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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	10.0		1	11/04/2022 15:32	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.594	J	0.255	1.00	1	11/03/2022 09:33	WG1952779

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	7.79	T8	1	11/04/2022 08:16	WG1953399

<sup>6</sup> Qc<sup>7</sup> GI

## Sample Narrative:

L1551283-01 WG1953399: 7.79 at 20.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	4380		umhos/cm	umhos/cm		WG1951039

<sup>8</sup> Al<sup>9</sup> Sc

## Sample Narrative:

L1551283-01 WG1951039: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	21.7		mg/kg	0.0852	0.500	1	11/08/2022 04:16	WG1950971
Cadmium	0.145	J	mg/kg	0.0471	0.500	1	11/08/2022 04:16	WG1950971
Copper	9.44		mg/kg	0.400	2.00	1	11/08/2022 04:16	WG1950971
Lead	6.39		mg/kg	0.208	0.500	1	11/08/2022 04:16	WG1950971
Nickel	5.64		mg/kg	0.132	2.00	1	11/08/2022 04:16	WG1950971
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:16	WG1950971
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:16	WG1950971
Zinc	23.1		mg/kg	0.832	5.00	1	11/08/2022 04:16	WG1950971

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	1.51		mg/l	0.0167	0.200	1	11/08/2022 12:59	WG1950671

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	1.17		mg/kg	0.100	1.00	5	11/07/2022 18:29	WG1950975

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	9.14		1	11/04/2022 15:35	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.308	J	0.255	1.00	1	11/03/2022 09:38	WG1952779

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	7.45	T8	1	11/04/2022 08:16	WG1953399

<sup>3</sup> Ss

## Sample Narrative:

L1551283-02 WG1953399: 7.45 at 20.7C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	6370		umhos/cm	umhos/cm		WG1952173

<sup>5</sup> Sr

## Sample Narrative:

L1551283-02 WG1952173: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	91.0		mg/kg	0.0852	0.500	1	11/08/2022 04:19	WG1950971
Cadmium	1.46		mg/kg	0.0471	0.500	1	11/08/2022 04:19	WG1950971
Copper	56.2		mg/kg	0.400	2.00	1	11/08/2022 04:19	WG1950971
Lead	30.3		mg/kg	0.208	0.500	1	11/08/2022 04:19	WG1950971
Nickel	42.3		mg/kg	0.132	2.00	1	11/08/2022 04:19	WG1950971
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:19	WG1950971
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:19	WG1950971
Zinc	129		mg/kg	0.832	5.00	1	11/08/2022 04:19	WG1950971

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	3.18		mg/l	0.0167	0.200	1	11/08/2022 13:02	WG1950671

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	25.4		mg/kg	0.100	1.00	5	11/07/2022 18:33	WG1950975

<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	17.9		1	11/04/2022 15:37	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.384	J	0.255	1.00	1	11/03/2022 09:43	WG1952779

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.04	T8	1	11/04/2022 08:16	WG1953399

## Sample Narrative:

L1551283-03 WG1953399: 8.04 at 20.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	4580		umhos/cm	umhos/cm		WG1957628

## Sample Narrative:

L1551283-03 WG1957628: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	135		mg/kg	0.0852	0.500	1	11/08/2022 04:22
Cadmium	0.612		mg/kg	0.0471	0.500	1	11/08/2022 04:22
Copper	42.9		mg/kg	0.400	2.00	1	11/08/2022 04:22
Lead	28.4		mg/kg	0.208	0.500	1	11/08/2022 04:22
Nickel	24.2		mg/kg	0.132	2.00	1	11/08/2022 04:22
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:22
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:22
Zinc	96.1		mg/kg	0.832	5.00	1	11/08/2022 04:22

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.794		mg/l	0.0167	0.200	1	11/08/2022 13:05

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	7.62		mg/kg	0.100	1.00	5	11/07/2022 18:36

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	21.6		1	11/04/2022 15:40	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.296	J	0.255	1.00	1	11/03/2022 10:04	WG1952779

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.32	T8	1	11/04/2022 08:16	WG1953399

<sup>6</sup> Qc<sup>7</sup> GI

## Sample Narrative:

L1551283-04 WG1953399: 8.32 at 20.8C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Specific Conductance	3350		umhos/cm	10.0	1	10/29/2022 10:10	WG1951039

<sup>8</sup> Al<sup>9</sup> Sc

## Sample Narrative:

L1551283-04 WG1951039: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	70.6		mg/kg	0.0852	0.500	1	11/08/2022 04:30	WG1950971
Cadmium	0.315	J	mg/kg	0.0471	0.500	1	11/08/2022 04:30	WG1950971
Copper	23.7		mg/kg	0.400	2.00	1	11/08/2022 04:30	WG1950971
Lead	20.7		mg/kg	0.208	0.500	1	11/08/2022 04:30	WG1950971
Nickel	12.8		mg/kg	0.132	2.00	1	11/08/2022 04:30	WG1950971
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:30	WG1950971
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:30	WG1950971
Zinc	55.1		mg/kg	0.832	5.00	1	11/08/2022 04:30	WG1950971

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	0.564		mg/l	0.0167	0.200	1	11/08/2022 13:08	WG1950671

<sup>1</sup> Cp

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	2.95		mg/kg	0.100	1.00	5	11/07/2022 18:45	WG1950975

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	45.4		1	11/04/2022 15:43	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.281	J	0.255	1.00	1	11/03/2022 10:30	WG1952779

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	8.26	T8	1	11/04/2022 08:16	WG1953399

## Sample Narrative:

L1551283-05 WG1953399: 8.26 at 20.8C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	3250		umhos/cm	umhos/cm		WG1952173

## Sample Narrative:

L1551283-05 WG1952173: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	86.1		mg/kg	0.0852	0.500	1	11/08/2022 04:33
Cadmium	0.474	J	mg/kg	0.0471	0.500	1	11/08/2022 04:33
Copper	31.2		mg/kg	0.400	2.00	1	11/08/2022 04:33
Lead	20.1		mg/kg	0.208	0.500	1	11/08/2022 04:33
Nickel	19.0		mg/kg	0.132	2.00	1	11/08/2022 04:33
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:33
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:33
Zinc	71.7		mg/kg	0.832	5.00	1	11/08/2022 04:33

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	0.609		mg/l	0.0167	0.200	1	11/08/2022 13:11

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	6.36		mg/kg	0.100	1.00	5	11/07/2022 18:49

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	117		1	11/04/2022 15:46	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.327	J	0.255	1.00	1	11/03/2022 10:35	WG1952779

<sup>2</sup> Tc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.58	T8	1	11/04/2022 08:16	WG1953399

<sup>3</sup> Ss

## Sample Narrative:

L1551283-06 WG1953399: 9.58 at 20.6C

<sup>4</sup> Cn

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Specific Conductance	3280		umhos/cm	umhos/cm	1	11/01/2022 13:00	WG1952173

<sup>5</sup> Sr

## Sample Narrative:

L1551283-06 WG1952173: at 25C

<sup>6</sup> Qc

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	220		mg/kg	0.0852	0.500	1	11/08/2022 04:36	WG1950971
Cadmium	0.617		mg/kg	0.0471	0.500	1	11/08/2022 04:36	WG1950971
Copper	51.7		mg/kg	0.400	2.00	1	11/08/2022 04:36	WG1950971
Lead	34.8		mg/kg	0.208	0.500	1	11/08/2022 04:36	WG1950971
Nickel	28.1		mg/kg	0.132	2.00	1	11/08/2022 04:36	WG1950971
Selenium	U		mg/kg	0.764	2.00	1	11/08/2022 04:36	WG1950971
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:36	WG1950971
Zinc	111		mg/kg	0.832	5.00	1	11/08/2022 04:36	WG1950971

<sup>7</sup> GI

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	1.25		mg/l	0.0167	0.200	1	11/08/2022 13:14	WG1950671

<sup>8</sup> Al

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	6.27		mg/kg	0.100	1.00	5	11/07/2022 18:52	WG1950975

<sup>9</sup> Sc

## SAMPLE RESULTS - 07

L1551283

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	24.9		1	11/04/2022 15:49	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	0.431	J	0.255	1.00	1	11/03/2022 11:36	WG1952780

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	9.81	T8	1	11/04/2022 08:16	WG1953399

## Sample Narrative:

L1551283-07 WG1953399: 9.81 at 20.6C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	2300		umhos/cm	umhos/cm		WG1952173

## Sample Narrative:

L1551283-07 WG1952173: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Barium	88.0		mg/kg	0.0852	0.500	1	11/08/2022 04:39	WG1950971
Cadmium	0.731		mg/kg	0.0471	0.500	1	11/08/2022 04:39	WG1950971
Copper	18.0		mg/kg	0.400	2.00	1	11/08/2022 04:39	WG1950971
Lead	18.7		mg/kg	0.208	0.500	1	11/08/2022 04:39	WG1950971
Nickel	12.8		mg/kg	0.132	2.00	1	11/08/2022 04:39	WG1950971
Selenium	2.73		mg/kg	0.764	2.00	1	11/08/2022 04:39	WG1950971
Silver	U		mg/kg	0.127	1.00	1	11/08/2022 04:39	WG1950971
Zinc	54.2		mg/kg	0.832	5.00	1	11/08/2022 04:39	WG1950971

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Hot Water Sol. Boron	1.70		mg/l	0.0167	0.200	1	11/08/2022 13:17	WG1950671

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>	
Arsenic	11.0		mg/kg	0.100	1.00	5	11/07/2022 18:55	WG1950975

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	13.5		1	11/04/2022 14:20	WG1953791

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1952780

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1953399

<sup>6</sup> Qc

## Sample Narrative:

L1551283-08 WG1953399: 9.69 at 20.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1951039

<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Sample Narrative:

L1551283-08 WG1951039: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1950971
Cadmium	81.8		0.0852	0.500	1	11/08/2022 04:42	WG1950971
Copper	0.657		0.0471	0.500	1	11/08/2022 04:42	WG1950971
Lead	20.9		0.400	2.00	1	11/08/2022 04:42	WG1950971
Nickel	17.9		0.208	0.500	1	11/08/2022 04:42	WG1950971
Selenium	16.3		0.132	2.00	1	11/08/2022 04:42	WG1950971
Silver	U		0.764	2.00	1	11/08/2022 04:42	WG1950971
Zinc	U		0.127	1.00	1	11/08/2022 04:42	WG1950971

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1950671

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1950975

## Calculated Results

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Sodium Adsorption Ratio	4.56		1	11/04/2022 22:25	WG1953886

<sup>1</sup> Cp

## Wet Chemistry by Method 7199

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	mg/kg		mg/kg	mg/kg			WG1952780

<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Wet Chemistry by Method 9045D

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
pH	su				WG1953399

## Sample Narrative:

L1551283-09 WG1953399: 9.77 at 20.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result	<u>Qualifier</u>	RDL	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	umhos/cm		umhos/cm			WG1952173

## Sample Narrative:

L1551283-09 WG1952173: at 25C

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Barium	mg/kg		mg/kg	mg/kg			WG1950971
Cadmium	0.568		0.0471	0.500	1	11/08/2022 04:45	WG1950971
Copper	35.9		0.400	2.00	1	11/08/2022 04:45	WG1950971
Lead	23.4		0.208	0.500	1	11/08/2022 04:45	WG1950971
Nickel	23.1		0.132	2.00	1	11/08/2022 04:45	WG1950971
Selenium	U		0.764	2.00	1	11/08/2022 04:45	WG1950971
Silver	U		0.127	1.00	1	11/08/2022 04:45	WG1950971
Zinc	84.1		0.832	5.00	1	11/08/2022 04:45	WG1950971

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

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

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Hot Water Sol. Boron	mg/l		mg/l	mg/l			WG1950671

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Metals (ICPMS) by Method 6020

Analyte	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	mg/kg		mg/kg	mg/kg			WG1950975

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

[L1551283-01,02,03,04,05,06](#)

## Method Blank (MB)

(MB) R3857722-1 11/03/22 07:23

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

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

## L1551008-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1551008-07 11/03/22 07:57 • (DUP) R3857722-3 11/03/22 08:02

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

## L1551283-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1551283-03 11/03/22 09:43 • (DUP) R3857722-4 11/03/22 09:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.384	0.316	1	19.4	J	20

## Laboratory Control Sample (LCS)

(LCS) R3857722-2 11/03/22 07:31

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.99	99.9	80.0-120	

## L1551283-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551283-04 11/03/22 10:04 • (MS) R3857722-6 11/03/22 10:14 • (MSD) R3857722-7 11/03/22 10:19

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	0.296	20.2	19.4	99.4	95.6	1	75.0-125			3.77	20

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

## L1551283-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1551283-04 11/03/22 10:04 • (MS) R3857722-8 11/03/22 10:25

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>
	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	0.296	728	114	50	75.0-125	

## QUALITY CONTROL SUMMARY

L1551283-07,08,09

## Method Blank (MB)

(MB) R3857934-1 11/03/22 11:23

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

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

## L1551444-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1551444-05 11/03/22 12:12 • (DUP) R3857934-3 11/03/22 12:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	mg/kg	mg/kg		%		%
Hexavalent Chromium	1.63	1.69	1	3.75		20

## L1551444-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1551444-12 11/03/22 13:35 • (DUP) R3857934-8 11/03/22 13:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	mg/kg	mg/kg		%		%
Hexavalent Chromium	1.47	1.19	1	20.8	P1	20

## Laboratory Control Sample (LCS)

(LCS) R3857934-2 11/03/22 11:31

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.5	105	80.0-120	

## L1551444-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551444-10 11/03/22 12:54 • (MS) R3857934-4 11/03/22 12:59 • (MSD) R3857934-5 11/03/22 13:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	1.68	20.4	21.0	93.5	96.8	1	75.0-125			3.23	20

## L1551444-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1551444-10 11/03/22 12:54 • (MS) R3857934-7 11/03/22 13:14

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>
	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	638	1.68	663	104	50	75.0-125	

WG1953399

Wet Chemistry by Method 9045D

## QUALITY CONTROL SUMMARY

[L1551283-01,02,03,04,05,06,07,08,09](#)

## L1551283-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1551283-03 11/04/22 08:16 • (DUP) R3856891-2 11/04/22 08:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU	%	%		%
pH	8.04	8.08	1	0.496	1	

## Sample Narrative:

OS: 8.04 at 20.7C

DUP: 8.08 at 20.8C

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

## L1552416-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1552416-08 11/04/22 08:16 • (DUP) R3856891-3 11/04/22 08:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	SU	SU	%	%		%
pH	8.03	8.02	1	0.125	1	

## Sample Narrative:

OS: 8.03 at 20.8C

DUP: 8.02 at 20.8C

## Laboratory Control Sample (LCS)

(LCS) R3856891-1 11/04/22 08:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	SU	SU	%	%	
pH	10.0	9.91	99.1	99.0-101	

## Sample Narrative:

LCS: 9.91 at 21.2C

WG1951039

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

L1551283-01,04,08

## Method Blank (MB)

(MB) R3854533-1 10/29/22 10:10

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

## Sample Narrative:

BLANK: at 25C

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

## L1551267-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1551267-08 10/29/22 10:10 • (DUP) R3854533-3 10/29/22 10:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	245	244	1	0.573		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1551283-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1551283-04 10/29/22 10:10 • (DUP) R3854533-4 10/29/22 10:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	3350	3300	1	1.50		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3854533-2 10/29/22 10:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	1120	1140	102	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

[L1551283-02,05,06,07,09](#)

## Method Blank (MB)

(MB) R3855470-1 11/01/22 13:00

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

## Sample Narrative:

BLANK: at 25C

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

## L1551267-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1551267-07 11/01/22 13:00 • (DUP) R3855470-3 11/01/22 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	2820	2800	1	0.890		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1551816-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1551816-02 11/01/22 13:00 • (DUP) R3855470-4 11/01/22 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	139	138	1	0.796		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3855470-2 11/01/22 13:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	1120	1110	98.7	85.0-115	

## Sample Narrative:

LCS: at 25C

WG1957628

Wet Chemistry by Method 9050AMod

## QUALITY CONTROL SUMMARY

L1551283-03

## Method Blank (MB)

(MB) R3859776-1 11/11/22 07:23

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

## Sample Narrative:

BLANK: at 25C

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

## L1550229-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1550229-01 11/11/22 07:23 • (DUP) R3859776-3 11/11/22 07:23

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	261	258	1	1.23		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## L1553463-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1553463-04 11/11/22 07:23 • (DUP) R3859776-4 11/11/22 07:23

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Specific Conductance	179	188	1	4.58		20

## Sample Narrative:

OS: at 25C

DUP: at 25C

## Laboratory Control Sample (LCS)

(LCS) R3859776-2 11/11/22 07:23

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	1120	1130	100	85.0-115	

## Sample Narrative:

LCS: at 25C

## QUALITY CONTROL SUMMARY

[L1551283-01,02,03,04,05,06,07,08,09](#)

## Method Blank (MB)

(MB) R3858101-1 11/08/22 03:20

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	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	U		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

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

## Laboratory Control Sample (LCS)

(LCS) R3858101-2 11/08/22 03:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Barium	100	106	106	80.0-120	
Cadmium	100	101	101	80.0-120	
Copper	100	103	103	80.0-120	
Lead	100	99.6	99.6	80.0-120	
Nickel	100	100	100	80.0-120	
Selenium	100	102	102	80.0-120	
Silver	20.0	19.1	95.4	80.0-120	
Zinc	100	101	101	80.0-120	

## L1550304-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1550304-01 11/08/22 03:26 • (MS) R3858101-5 11/08/22 03:34 • (MSD) R3858101-6 11/08/22 03:37

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Barium	100	131	229	229	97.5	97.9	1	75.0-125		0.192	20
Cadmium	100	0.141	105	101	105	100	1	75.0-125		4.33	20
Copper	100	8.73	116	113	107	104	1	75.0-125		3.02	20
Lead	100	13.1	118	115	105	102	1	75.0-125		2.89	20
Nickel	100	19.2	124	121	105	101	1	75.0-125		2.95	20
Selenium	100	U	104	100	104	100	1	75.0-125		3.44	20
Silver	20.0	U	19.3	18.7	96.4	93.6	1	75.0-125		3.01	20
Zinc	100	49.1	149	141	99.9	92.3	1	75.0-125		5.25	20

WG1950671

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

## QUALITY CONTROL SUMMARY

[L1551283-01,02,03,04,05,06,07,08,09](#)

## Method Blank (MB)

(MB) R3858463-1 11/08/22 12:18

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

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

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

(LCS) R3858463-2 11/08/22 12:21 • (LCSD) R3858463-3 11/08/22 12:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.02	1.04	102	104	80.0-120			1.52	20

## QUALITY CONTROL SUMMARY

[L1551283-01,02,03,04,05,06,07,08,09](#)

## Method Blank (MB)

(MB) R3858049-1 11/07/22 17:27

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

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

## Laboratory Control Sample (LCS)

(LCS) R3858049-2 11/07/22 17:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	98.9	98.9	80.0-120	

## L1550304-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1550304-01 11/07/22 17:34 • (MS) R3858049-5 11/07/22 17:43 • (MSD) R3858049-6 11/07/22 17:46

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 %
Arsenic	100	5.19	98.9	94.5	93.7	89.3	5	75.0-125			4.53	20

# 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.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>6</sup> Qc
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>7</sup> Gl
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.	<sup>8</sup> Al
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.	<sup>9</sup> Sc
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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



# CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>  
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Confluence Compliance Companies, LLC.	Billing Information: Info on file
Address: Info on file	
Report To: Chris McKisson	Email To: info on file
Copy To: Chris McKisson, remediation@confluence-cc.com	Site Collection Info/Address:
Customer Project Name/Number: Fed 1-30 Backgrounds	State: CO County/City: Rio Blanco Time Zone Collected: [ ] PT [X] MT [ ] CT [ ] ET
Phone: _____ Email: _____	Site/Facility ID #: Federal 1-30 Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Andrew Smith	Purchase Order #: _____ Quote #: _____
Collected By (signature): <i>A. Smith</i>	Turnaround Date Required: Standard Turnaround
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis: _____

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns	Container Type: Plastic (P) or Glass (G)	Table 915-1 Metals		Boron - Hot Water Soluble		CR6IC		Analyses	Lab Profile/Line:
			Date	Time	Date	Time				EC, SAR, pH	X	X	X	X	X		
221025-FED_1-30-BG01@7.5'-10'	SL	G	10/25/2022	0910			12		G	X	X	X	X				Lab Sample Receipt Checklist: Custody Seals Present/Intact <input checked="" type="checkbox"/> N NA Custody Signatures Present <input checked="" type="checkbox"/> Y N NA Collector Signature Present <input checked="" type="checkbox"/> Y N NA Bottles Intact <input checked="" type="checkbox"/> Y N NA Correct Bottles <input checked="" type="checkbox"/> Y N NA Sufficient Volume <input checked="" type="checkbox"/> Y N NA Samples Received on Ice <input checked="" type="checkbox"/> Y N NA VOA - Headspace Acceptable <input checked="" type="checkbox"/> Y N NA USDA Regulated Soils <input checked="" type="checkbox"/> Y N NA Samples in Holding Time <input checked="" type="checkbox"/> Y N NA Residual Chlorine Present <input checked="" type="checkbox"/> Y N NA Cl Strips: _____ Sample pH Acceptable <input checked="" type="checkbox"/> Y N NA pH Strips: _____ Sulfide Present <input checked="" type="checkbox"/> Y N NA Lead Acetate Strips: _____
221025-FED_1-30-BG01@12.5'-15'	SL	G	10/25/2022	0925			2		G	X	X	X	X				
221025-FED_1-30-BG02@12.5'-15'	SL	G	10/25/2022	0945			2		G	X	X	X	X				
221025-FED_1-30-BG02@17.5'-20'	SL	G	10/25/2022	0950			2		G	X	X	X	X				
221025-FED_1-30-BG03@12.5'-15'	SL	G	10/25/2022	1010			2		G	X	X	X	X				
221025-FED_1-30-BG03@17.5'-20'	SL	G	10/25/2022	1015			2		G	X	X	X	X				
221025-FED_1-30-BG04@7.5'-10'	SL	G	10/25/2022	1045			2		G	X	X	X	X				
221025-FED_1-30-BG04@12.5'-15'	SL	G	10/25/2022	1050			2		G	X	X	X	X				
221025-FED_1-30-BG04@17.5'-20'	SL	G	10/25/2022	1055			2		G	X	X	X	X				

Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> Dry <input type="checkbox"/> None	SHORT HOLDS PRESENT (<72 hours): <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	LAB Sample Temperature Info: Temp Blank Received: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA Therm ID#: <i>GBA7 1.910-1.9</i>
	Packing Material Used: _____	Lab Tracking #: <i>5016 1232 177</i>	Cooler 1 Temp Upon Receipt: <input type="checkbox"/> °C Cooler 1 Therm Corr. Factor: <input type="checkbox"/> °C Cooler 1 Corrected Temp: <input type="checkbox"/> °C Comments: _____
	Radchem sample(s) screened (<500 cpm): <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Samples received via: <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> Client <input type="checkbox"/> Courier <input type="checkbox"/> Pace Courier	

Relinquished by/Company: (Signature) <i>A. Smith</i>	Date/Time: 10/26/22 1300	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY	Template: Prelogin: PM: PB:	Trip Blank Received: Y N NA HCL MeOH TSP Other Non Conformance(s): YES / NO Page: _____ of: _____
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	G200		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature) <i>C. Jones</i>	Date/Time: 10/26 D900			