January 11, 2024

Jake Janicek
EHS Specialist
Caerus Oil & Gas LLC
jjanicek@caerusoilandgas.com

Report of Work Completed – Partially Buried Vessel Removal

ECMC Location Name (ID)	PUCKETT- 67S97W/1SWNE (324312)
Operator Location Name	Puckett 264-1
ECMC Remediation Project Number	30192
Legal Description	SWNE Sec. 1 T7S-R97W
Coordinates (Lat/Long)	39.475337 / -108.165348
County	Garfield County, Colorado

Mr. Janicek,

Confluence Compliance Companies, LLC (Confluence) prepared this Report of Work Completed (ROWC) for Caerus Oil & Gas LLC (Caerus) to document findings of the site assessment activities associated with the removal of a partially buried vessel (PBV) at the Puckett 264-1 well pad (Location). The Location is 6.2 miles northwest of Parachute, Colorado, in Garfield County as illustrated in the attached Topographic Map. Additional information on the Location and the associated remediation project is provided in the title block above, the attached Site Diagrams, and laboratory analytical reports. This ROWC provides background on the Location, methods used to complete the assessment, results of the assessment, and recommendations for how to proceed with this information.

Background

On June 28, 2023, Energy & Carbon Management Commission (ECMC) Form 27 Document 403425262 was submitted as notification to remove the PBV and to open Remediation Project 30192. The form and associated investigation plan were approved on July 7, 2023.

Methodology

On October 26, 2023, following the removal of the PBV, Confluence completed an initial investigation of the excavation. One soil sample was collected from the base of the excavation at 4 feet below ground surface (bgs), and four samples were collected from the sidewalls of the excavation at depths ranging from 2.5 to 3 feet bgs. The soil samples were characterized using visual and olfactory observations and field screened using a photoionization detector (PID). Additionally, two background soil samples were collected from comparable, nearby, non-impacted soil to establish native levels of inorganic constituents.

All samples were collected in laboratory provided jars, immediately placed on ice, and shipped under a completed chain-of-custody form to Pace Analytical Services (Pace). Excavation samples were analyzed for ECMC Table 915-1 soil constituents of concern, while background samples were analyzed for electrical conductivity (EC), sodium adsorption ratio (SAR), pH,

boron, and Table 915-1 metals. The sample locations are illustrated in the attached Site Diagrams.

Results

These results summarize observations from onsite investigation efforts and associated laboratory analytical results. For organizational and presentation purposes the results summary is divided between general observations of lithology and hydrogeology for the entire Location and site investigation activities. Collected spatial data are depicted in the attached Site Diagrams. Laboratory analytical reports are attached and summarized in the Laboratory Results Summary Table.

Lithology and Hydrogeology

Lithology at the Location is characterized as organic silts and clays. Groundwater is expected to flow northeast toward Starkey Gulch and ultimately to the Colorado River, located 6.0 miles southeast of the Location. Division of Water Resources well permit 271289, located approximately 0.58 miles north of the Location, lists depth to groundwater as 234 feet bgs. The well sits at the same approximate elevation as the Location. Based on this information, it is estimated that depth to groundwater at the Location is greater than 100 feet bgs. No groundwater was observed during sampling activities.

Initial Investigation Results

Field screening results indicated PID measurements ranging from 0.5 to 1.2 parts per million (ppm). Analytical results of excavation soil samples indicate compliance with Table 915-1 Residential Soil Screening Levels (RSSLs) except for arsenic and hexavalent chromium. Arsenic exceedances range from 3.76 to 11.1 milligrams per kilogram (mg/kg). One hexavalent chromium exceedance was detected at the north wall at 0.329 mg/kg.

Background Results

Analytical results of background samples indicated arsenic concentrations of 11.7 and 30.5 mg/kg, and a hexavalent chromium exceedance of 0.524 mg/kg.

Analysis and Recommendations

Based on the estimated depth to groundwater of greater than 100 feet bgs, Confluence recommends that Caerus request to compare analytical results for the site assessment to Table 915-1 RSSLs as no reasonable pathway to groundwater appears to exist.

Although levels of arsenic and hexavalent chromium exceeding Table 915-1 RSSLs remain in the investigation area, background data demonstrates these values are within native conditions at the Location. Site-specific background samples collected adjacent to the Location indicate a native arsenic and hexavalent chromium value of 30.5 mg/kg and 0.534 mg/kg, respectively. Confluence recommends Caerus request an alternative allowable limit for arsenic of 30.5 mg/kg and 0.534 mg/kg for hexavalent chromium per ECMC Table 915-1 Footnote 1.

Based on initial investigation results, and assuming all requests are approved, all constituents of concern are within Table 915-1 RSSLs or relevant alternative allowable limits. Confluence recommends Caerus request closure of Remediation Project 30192 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 us.

Regards,

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Chris McKisson
Managing Partner
(720) 490-6758
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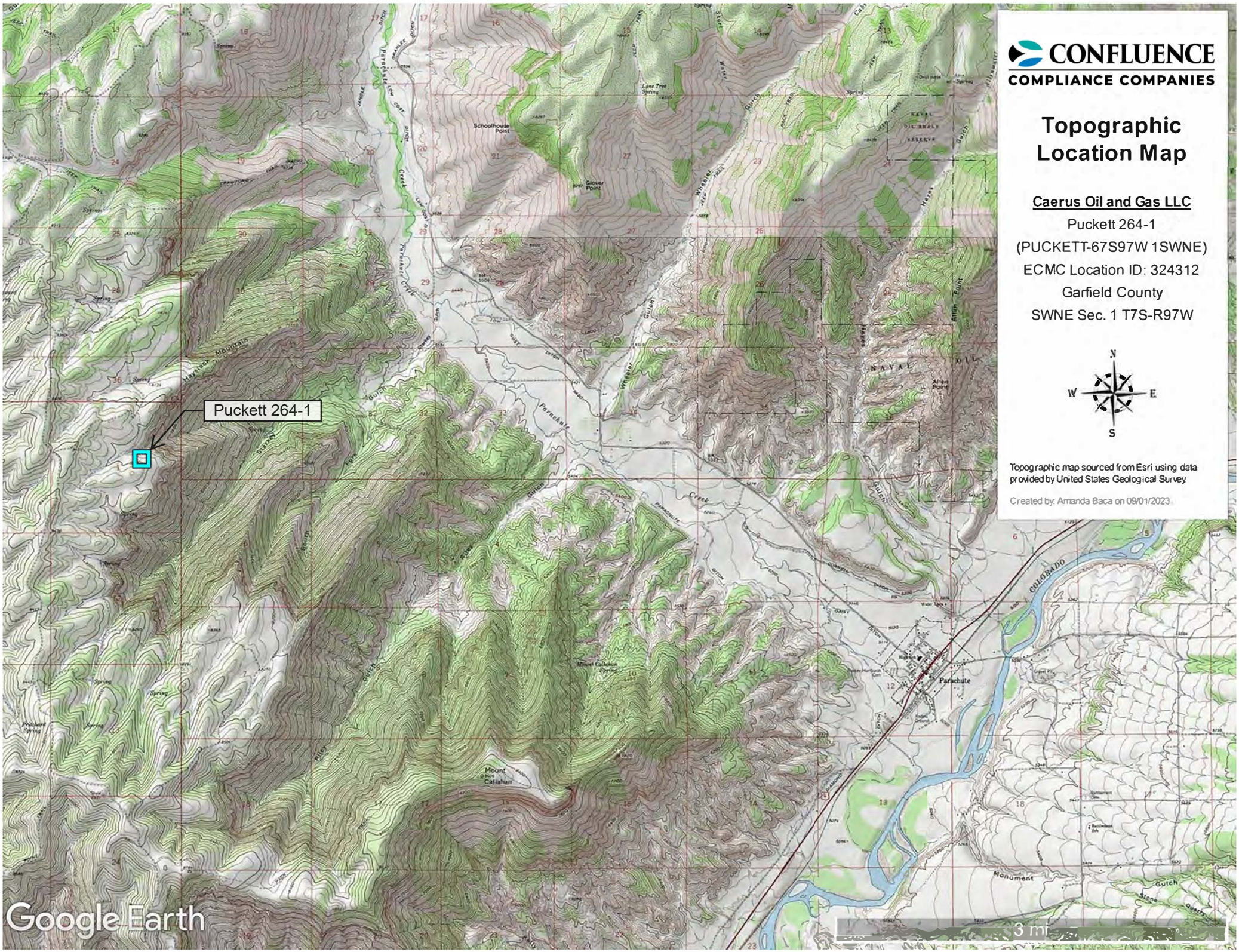
Attachments

- Topographic Location Diagram
- Site Diagram – Excavation Samples
- Site Diagram – Background Samples
- Analytical Results Summary Table
- Laboratory Reports



CONFLUENCE
COMPLIANCE COMPANIES

Topographic Location Map

Caerus Oil and Gas LLC

Puckett 264-1

(PUCKETT-67S97W 1SWNE)

ECMC Location ID: 324312

Garfield County

SWNE Sec. 1 T7S-R97W

N
W E
S

Topographic map sourced from Esri using data provided by United States Geological Survey

Created by: Amanda Baca on 09/01/2023

CONFLUENCE
COMPLIANCE COMPANIES

Site Diagram
Excavation Samples

Caerus Oil and Gas LLC
Puckett 264-1
(PUCKETT-67S97W/1SWNE)
ECMC Location ID: 324312
Garfield County
SWNE Sec. 1 T7S-R97W

N
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Legend
- Soil Sample
- Excavation Extent

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: Amanda Baca on 11/14/2023.

CONFLUENCE
COMPLIANCE COMPANIES

Site Diagram
Background Samples

Caerus Oil and Gas LLC
Puckett 264-1
(PUCKETT-67S97W/1SWNE)
ECMC Location ID: 324312
Garfield County
swne Sec. 1 T7S-R97W

N
W E
S

Legend
- Background Soil Sample
- Excavation Extent

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: Miranda Beard on 01/10/2024.

CONFLUENCE

Laboratory Results Summary Table - Soil
Puckett 264-1

11/15/2023

					Organic Compounds (mg/kg [ppm])																								
ECMC Soil Screening Levels																													
ECMC Table 915-1 Residential -->				NA	500	NA	NA	NA	1.2	490	5.8	58	30	27	360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	18	24	2	180
Sample Date	Solid/Soil Source (Equipment) [Vault/Sump, Separator, Tank Battery, Dump Line, Pit, Cuttings, Background, etc.]	Depth - Z (feet) (NEGATIVE VALUE) below ground surface (bgs)	Sample ID	PID (ppm)	TPH (total volatile and extractable petroleum hydrocarbons) (GRO+DRO+ORO)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	TPH-ORO (C28-C36) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total (sum of o-, m-, p- isomers)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Acenaphthene	Anthracene	Benzo(A)anthracene	Benzo(A)pyrene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Chrysene	Dibenz(A,H)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3,C,D)pyrene	1- Methylnaphthalene	2- Methylnaphthalene	Naphthalene	Pyrene
10/26/2023	Vault	-4	20231026-PUCKETT 264-1-(BASE)@4	0.8	79.0	<0.100	18.7	60.3	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
10/26/2023	Vault	-3	20231026-PUCKETT 264-1-(NW)@3	1.2	29.4	<0.100	9.40	20.0	<0.00100	0.00155	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(WW)@2.5	0.7	41.7	<0.100	9.12	32.6	<0.00100	0.00149	<0.00250	0.00196	0.00956	0.00336	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(SW)@2.5	0.5	5.39	<0.100	1.98	3.41	<0.00100	0.00143	<0.00250	<0.00650	0.00268	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(EW)@2.5	0.8	34.8	0.0242	9.84	24.9	<0.00100	0.00158	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
10/26/2023	Background	-2	20231026-LMBG-(PUCKETT 264-1-N)@2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/26/2023	Background	-3	20231026-LMBG-(PUCKETT 264-1-W)@3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Orange Fill = Exceedance
Dark Gray Italics = Below Reporting Detection Limit (RDL)
"NA" = Not Analyzed
mg/kg = milligrams per kilogram / parts per million

CONFLUENCE

Laboratory Results Summary Table - Soil
Puckett 264-1

11/15/2023

ECMC Soil Screening Levels					Soil Suitability for Reclamation				Metals (mg/kg [ppm])									
ECMC Table 915-1 Residential -->				NA	4	6	6-8.3	2	0.68	15000	71	0.3	3100	400	1500	390	390	23000
Sample Date	Solid/Soil Source (Equipment) [Vault/Sump, Separator, Tank Battery, Dump Line, Pit, Cuttings, Background, etc.]	Depth - Z (feet) (NEGATIVE VALUE) below ground surface (bgs)	Sample ID	PID (ppm)	EC (Specific Conductance) (millimhos/centimeter) (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
10/26/2023	Vault	-4	20231026-PUCKETT 264-1-(BASE)@4	0.8	0.148	0.478	7.86	0.362	6.32	203	0.392	<1.00	16.3	16.1	19.4	0.384	<0.500	59.6
10/26/2023	Vault	-3	20231026-PUCKETT 264-1-(NW)@3	1.2	0.161	0.485	8.20	0.1540	3.76	79.0	0.149	0.329	6.78	5.47	8.20	0.270	<0.500	27.5
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(WW)@2.5	0.7	0.261	0.327	7.56	0.220	3.77	152	0.439	<1.00	10.5	11.0	12.1	0.513	<0.500	46.3
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(SW)@2.5	0.5	0.170	0.314	7.74	0.202	6.53	182	0.325	<1.00	15.1	12.0	17.0	0.495	<0.500	51.6
10/26/2023	Vault	-2.5	20231026-PUCKETT 264-1-(EW)@2.5	0.8	0.149	0.480	8.10	0.271	11.1	201	0.374	0.288	16.9	14.0	17.0	0.603	<0.500	59.1
10/26/2023	Background	-2	20231026-LMBG-(PUCKETT 264-1-N)@2	NA	0.202	0.153	7.44	0.626	30.5	401	0.698	<1.00	31.2	23.7	27.9	1.20	0.145	74.1
10/26/2023	Background	-3	20231026-LMBG-(PUCKETT 264-1-W)@3	NA	0.0773	0.140	6.95	0.276	11.7	224	0.356	0.534	25.5	16.7	23.9	0.611	0.108	63.4

Confluence Compliance Companies, LLC
info@confluence-cc.com

Orange Fill = Exceedance
Dark Gray Italics = Below Reporting Detection Limit (RDL)
"NA" = Not Analyzed
mg/kg = milligrams per kilogram / parts per million

ANALYTICAL REPORT

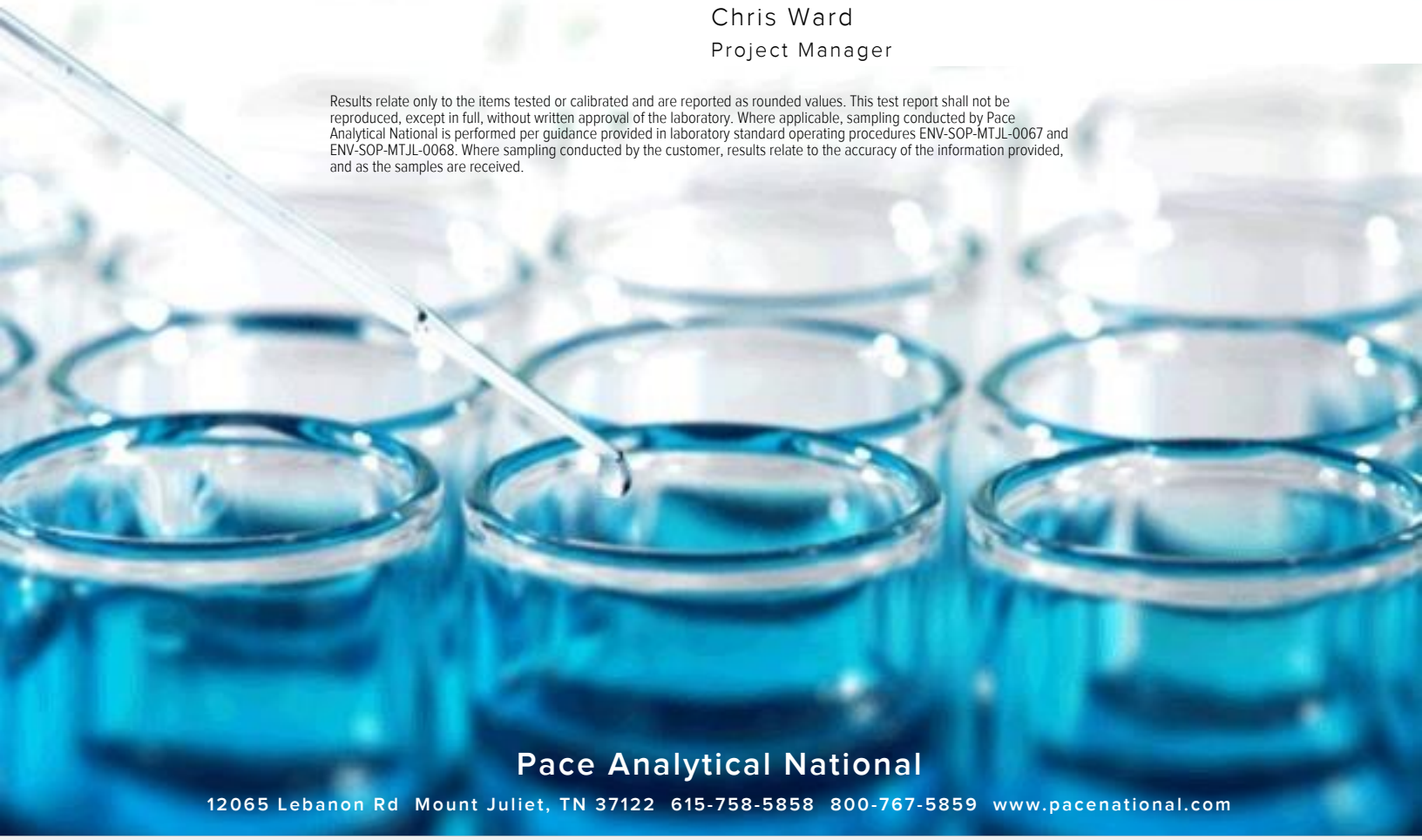
November 07, 2023

Caerus Oil and Gas

Sample Delivery Group:	L1671524
Samples Received:	10/28/2023
Project Number:	
Description:	Puckett 264-1 PBV Closure
Site:	PUCKETT 264-1
Report To:	Jake J. / Brett M. / Blair R. / Andy V. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



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

TABLE OF CONTENTS

20231026-PUCKETT 264-1-(BASE)@4 L1671524-01 Solid

Collected by: Alex Slorby | Collected date/time: 10/26/23 12:30 | Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 17:15	11/04/23 17:15	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 09:02	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 20:52	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161880	5	11/01/23 07:52	11/02/23 14:38	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2164188	1	10/26/23 12:30	11/04/23 01:43	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2162751	1	10/26/23 12:30	11/02/23 06:05	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2162843	1	11/02/23 16:20	11/03/23 01:34	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2163639	1	11/03/23 13:06	11/03/23 20:49	ALM	Mt. Juliet, TN

20231026-PUCKETT 264-1-(NW)@3 L1671524-02 Solid

Collected by: Alex Slorby | Collected date/time: 10/26/23 12:40 | Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 17:33	11/04/23 17:33	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 09:07	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 20:46	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161880	5	11/01/23 07:52	11/02/23 14:41	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2164188	1	10/26/23 12:40	11/04/23 02:02	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2162751	1	10/26/23 12:40	11/02/23 06:24	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2162843	1	11/02/23 16:20	11/03/23 01:34	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2163639	1	11/03/23 13:06	11/03/23 22:51	ALM	Mt. Juliet, TN

20231026-PUCKETT 264-1-(WW)@2.5 L1671524-03 Solid

Collected by: Alex Slorby | Collected date/time: 10/26/23 12:45 | Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 17:57	11/04/23 17:57	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 09:28	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 20:49	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 14:34	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 22:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2164188	1	10/26/23 12:45	11/04/23 02:21	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2163038	1	10/26/23 12:45	11/02/23 14:29	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2162843	1	11/02/23 16:20	11/03/23 02:09	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2163714	1	11/03/23 16:09	11/03/23 23:28	NWH	Mt. Juliet, TN

20231026-PUCKETT 264-1-(SW)@2.5 L1671524-04 Solid

Collected by: Alex Slorby | Collected date/time: 10/26/23 12:50 | Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 16:58	11/04/23 16:58	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 09:33	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 20:43	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 14:37	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 22:13	LD	Mt. Juliet, TN

SAMPLE SUMMARY

20231026-PUCKETT 264-1-(SW)@2.5 L1671524-04 Solid

Collected by: Alex Slorby
Collected date/time: 10/26/23 12:50
Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2164188	1	10/26/23 12:50	11/04/23 02:40	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2163038	1	10/26/23 12:50	11/02/23 14:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2162843	1	11/02/23 16:20	11/03/23 01:10	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2163714	1	11/03/23 16:09	11/03/23 23:46	NWH	Mt. Juliet, TN

20231026-PUCKETT 264-1-(EW)@2.5 L1671524-05 Solid

Collected by: Alex Slorby
Collected date/time: 10/26/23 12:55
Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 17:51	11/04/23 17:51	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 09:38	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 21:15	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 14:40	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161881	5	11/01/23 07:55	11/05/23 22:16	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2164449	1	10/26/23 12:55	11/04/23 16:51	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2163038	1	10/26/23 12:55	11/02/23 15:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2163701	1	11/04/23 07:05	11/04/23 11:51	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2163714	1	11/03/23 16:09	11/04/23 00:03	NWH	Mt. Juliet, TN

CASE NARRATIVE

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

Chris Ward
Project Manager

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	SAR				
Sodium Adsorption Ratio	0.478		1	11/04/2023 17:15	WG2163189

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	11/06/2023 09:02	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.86	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671524-01 WG2162964: 7.86 at 20.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	148		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671524-01 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.362		0.0167	0.200	1	11/06/2023 20:52	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.32		0.100	1.00	5	11/02/2023 14:38	WG2161880
Barium	203		0.152	2.50	5	11/02/2023 14:38	WG2161880
Cadmium	0.392	J	0.0855	1.00	5	11/02/2023 14:38	WG2161880
Copper	16.3		0.132	5.00	5	11/02/2023 14:38	WG2161880
Lead	16.1		0.0990	2.00	5	11/02/2023 14:38	WG2161880
Nickel	19.4		0.197	2.50	5	11/02/2023 14:38	WG2161880
Selenium	0.384	J	0.180	2.50	5	11/02/2023 14:38	WG2161880
Silver	U		0.0865	0.500	5	11/02/2023 14:38	WG2161880
Zinc	59.6		0.740	25.0	5	11/02/2023 14:38	WG2161880

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	11/04/2023 01:43	WG2164188
(S) a,a,a-Trifluorotoluene(FID)	*88.8*			*77.0-120*		*11/04/2023 01:43*	WG2164188

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	11/02/2023 06:05	WG2162751
Toluene	U		0.00130	0.00500	1	11/02/2023 06:05	WG2162751
Ethylbenzene	U		0.000737	0.00250	1	11/02/2023 06:05	WG2162751
Xylenes, Total	U		0.000880	0.00650	1	11/02/2023 06:05	WG2162751
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	11/02/2023 06:05	WG2162751
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/02/2023 06:05	WG2162751
(S) Toluene-d8	*109*			*75.0-131*		*11/02/2023 06:05*	WG2162751
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/02/2023 06:05*	WG2162751
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*11/02/2023 06:05*	WG2162751

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	18.7		1.61	4.00	1	11/03/2023 01:34	WG2162843
C28-C36 Motor Oil Range	60.3		0.274	4.00	1	11/03/2023 01:34	WG2162843
(S) o-Terphenyl	*45.3*			*18.0-148*		*11/03/2023 01:34*	WG2162843

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	11/03/2023 20:49	WG2163639
Anthracene	U		0.00230	0.00600	1	11/03/2023 20:49	WG2163639
Benzo(a)anthracene	U		0.00173	0.00600	1	11/03/2023 20:49	WG2163639
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/03/2023 20:49	WG2163639
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/03/2023 20:49	WG2163639
Benzo(a)pyrene	U		0.00179	0.00600	1	11/03/2023 20:49	WG2163639
Chrysene	U		0.00232	0.00600	1	11/03/2023 20:49	WG2163639
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/03/2023 20:49	WG2163639
Fluoranthene	U		0.00227	0.00600	1	11/03/2023 20:49	WG2163639
Fluorene	U		0.00205	0.00600	1	11/03/2023 20:49	WG2163639
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/03/2023 20:49	WG2163639
1-Methylnaphthalene	U		0.00449	0.0200	1	11/03/2023 20:49	WG2163639
2-Methylnaphthalene	U		0.00427	0.0200	1	11/03/2023 20:49	WG2163639
Naphthalene	U		0.00408	0.0200	1	11/03/2023 20:49	WG2163639
Pyrene	U		0.00200	0.00600	1	11/03/2023 20:49	WG2163639
(S) p-Terphenyl-d14	*175*	J1		*23.0-120*		*11/03/2023 20:49*	WG2163639
(S) Nitrobenzene-d5	*197*	J1		*14.0-149*		*11/03/2023 20:49*	WG2163639
(S) 2-Fluorobiphenyl	*167*	J1		*34.0-125*		*11/03/2023 20:49*	WG2163639

Sample Narrative:

L1671524-01 WG2163639: Reporting BDL resilts only.

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	SAR				
Sodium Adsorption Ratio	0.485		1	11/04/2023 17:33	WG2163189

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.329	J	0.255	1.00	1	11/06/2023 09:07	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.20	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671524-02 WG2162964: 8.2 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	161		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671524-02 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.154	J	0.0167	0.200	1	11/06/2023 20:46	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.76		0.100	1.00	5	11/02/2023 14:41	WG2161880
Barium	79.0		0.152	2.50	5	11/02/2023 14:41	WG2161880
Cadmium	0.149	J	0.0855	1.00	5	11/02/2023 14:41	WG2161880
Copper	6.78		0.132	5.00	5	11/02/2023 14:41	WG2161880
Lead	5.47		0.0990	2.00	5	11/02/2023 14:41	WG2161880
Nickel	8.20		0.197	2.50	5	11/02/2023 14:41	WG2161880
Selenium	0.270	J	0.180	2.50	5	11/02/2023 14:41	WG2161880
Silver	U		0.0865	0.500	5	11/02/2023 14:41	WG2161880
Zinc	27.5		0.740	25.0	5	11/02/2023 14:41	WG2161880

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	11/04/2023 02:02	WG2164188
(S) a,a,a-Trifluorotoluene(FID)	*87.1*			*77.0-120*		*11/04/2023 02:02*	WG2164188

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	11/02/2023 06:24	WG2162751
Toluene	0.00155	J	0.00130	0.00500	1	11/02/2023 06:24	WG2162751
Ethylbenzene	U		0.000737	0.00250	1	11/02/2023 06:24	WG2162751
Xylenes, Total	U		0.000880	0.00650	1	11/02/2023 06:24	WG2162751
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	11/02/2023 06:24	WG2162751
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/02/2023 06:24	WG2162751
(S) Toluene-d8	*112*			*75.0-131*		*11/02/2023 06:24*	WG2162751
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/02/2023 06:24*	WG2162751
(S) 1,2-Dichloroethane-d4	*87.8*			*70.0-130*		*11/02/2023 06:24*	WG2162751

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	9.40		1.61	4.00	1	11/03/2023 01:34	WG2162843
C28-C36 Motor Oil Range	20.0		0.274	4.00	1	11/03/2023 01:34	WG2162843
(S) o-Terphenyl	*42.5*			*18.0-148*		*11/03/2023 01:34*	WG2162843

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	11/03/2023 22:51	WG2163639
Anthracene	U		0.00230	0.00600	1	11/03/2023 22:51	WG2163639
Benzo(a)anthracene	U		0.00173	0.00600	1	11/03/2023 22:51	WG2163639
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/03/2023 22:51	WG2163639
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/03/2023 22:51	WG2163639
Benzo(a)pyrene	U		0.00179	0.00600	1	11/03/2023 22:51	WG2163639
Chrysene	U		0.00232	0.00600	1	11/03/2023 22:51	WG2163639
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/03/2023 22:51	WG2163639
Fluoranthene	U		0.00227	0.00600	1	11/03/2023 22:51	WG2163639
Fluorene	U		0.00205	0.00600	1	11/03/2023 22:51	WG2163639
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/03/2023 22:51	WG2163639
1-Methylnaphthalene	U		0.00449	0.0200	1	11/03/2023 22:51	WG2163639
2-Methylnaphthalene	U		0.00427	0.0200	1	11/03/2023 22:51	WG2163639
Naphthalene	U		0.00408	0.0200	1	11/03/2023 22:51	WG2163639
Pyrene	U		0.00200	0.00600	1	11/03/2023 22:51	WG2163639
(S) p-Terphenyl-d14	*91.0*			*23.0-120*		*11/03/2023 22:51*	WG2163639
(S) Nitrobenzene-d5	*102*			*14.0-149*		*11/03/2023 22:51*	WG2163639
(S) 2-Fluorobiphenyl	*88.7*			*34.0-125*		*11/03/2023 22:51*	WG2163639

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.327		1	11/04/2023 17:57	WG2163189

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	11/06/2023 09:28	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.56	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671524-03 WG2162964: 7.56 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	261		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671524-03 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.220		0.0167	0.200	1	11/06/2023 20:49	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.77		0.100	1.00	5	11/05/2023 14:34	WG2161881
Barium	152		0.152	2.50	5	11/05/2023 14:34	WG2161881
Cadmium	0.439	J	0.0855	1.00	5	11/05/2023 14:34	WG2161881
Copper	10.5		0.132	5.00	5	11/05/2023 14:34	WG2161881
Lead	11.0		0.0990	2.00	5	11/05/2023 14:34	WG2161881
Nickel	12.1		0.197	2.50	5	11/05/2023 14:34	WG2161881
Selenium	0.513	J	0.180	2.50	5	11/05/2023 22:10	WG2161881
Silver	U		0.0865	0.500	5	11/05/2023 14:34	WG2161881
Zinc	46.3		0.740	25.0	5	11/05/2023 14:34	WG2161881

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	11/04/2023 02:21	WG2164188
(S) a,a,a-Trifluorotoluene(FID)	*88.6*			*77.0-120*		*11/04/2023 02:21*	WG2164188

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	11/02/2023 14:29	WG2163038
Toluene	0.00149	J	0.00130	0.00500	1	11/02/2023 14:29	WG2163038
Ethylbenzene	U		0.000737	0.00250	1	11/02/2023 14:29	WG2163038
Xylenes, Total	0.00196	J	0.000880	0.00650	1	11/02/2023 14:29	WG2163038
1,2,4-Trimethylbenzene	0.00956		0.00158	0.00500	1	11/02/2023 14:29	WG2163038
1,3,5-Trimethylbenzene	0.00336	J	0.00200	0.00500	1	11/02/2023 14:29	WG2163038
(S) Toluene-d8	*113*			*75.0-131*		*11/02/2023 14:29*	WG2163038
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/02/2023 14:29*	WG2163038
(S) 1,2-Dichloroethane-d4	*82.6*			*70.0-130*		*11/02/2023 14:29*	WG2163038

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	9.12		1.61	4.00	1	11/03/2023 02:09	WG2162843
C28-C36 Motor Oil Range	32.6		0.274	4.00	1	11/03/2023 02:09	WG2162843
(S) o-Terphenyl	*38.7*			*18.0-148*		*11/03/2023 02:09*	WG2162843

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	11/03/2023 23:28	WG2163714
Anthracene	U		0.00230	0.00600	1	11/03/2023 23:28	WG2163714
Benzo(a)anthracene	U		0.00173	0.00600	1	11/03/2023 23:28	WG2163714
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/03/2023 23:28	WG2163714
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/03/2023 23:28	WG2163714
Benzo(a)pyrene	U		0.00179	0.00600	1	11/03/2023 23:28	WG2163714
Chrysene	U		0.00232	0.00600	1	11/03/2023 23:28	WG2163714
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/03/2023 23:28	WG2163714
Fluoranthene	U		0.00227	0.00600	1	11/03/2023 23:28	WG2163714
Fluorene	U		0.00205	0.00600	1	11/03/2023 23:28	WG2163714
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/03/2023 23:28	WG2163714
1-Methylnaphthalene	U		0.00449	0.0200	1	11/03/2023 23:28	WG2163714
2-Methylnaphthalene	U		0.00427	0.0200	1	11/03/2023 23:28	WG2163714
Naphthalene	U		0.00408	0.0200	1	11/03/2023 23:28	WG2163714
Pyrene	U		0.00200	0.00600	1	11/03/2023 23:28	WG2163714
(S) p-Terphenyl-d14	*74.6*			*23.0-120*		*11/03/2023 23:28*	WG2163714
(S) Nitrobenzene-d5	*61.4*			*14.0-149*		*11/03/2023 23:28*	WG2163714
(S) 2-Fluorobiphenyl	*54.5*			*34.0-125*		*11/03/2023 23:28*	WG2163714

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	SAR				
Sodium Adsorption Ratio	0.314		1	11/04/2023 16:58	WG2163189

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	11/06/2023 09:33	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.74	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671524-04 WG2162964: 7.74 at 20.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	170		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671524-04 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.202		0.0167	0.200	1	11/06/2023 20:43	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.53		0.100	1.00	5	11/05/2023 14:37	WG2161881
Barium	182		0.152	2.50	5	11/05/2023 14:37	WG2161881
Cadmium	0.325	J	0.0855	1.00	5	11/05/2023 14:37	WG2161881
Copper	15.1		0.132	5.00	5	11/05/2023 14:37	WG2161881
Lead	12.0		0.0990	2.00	5	11/05/2023 14:37	WG2161881
Nickel	17.0		0.197	2.50	5	11/05/2023 14:37	WG2161881
Selenium	0.495	J	0.180	2.50	5	11/05/2023 22:13	WG2161881
Silver	U		0.0865	0.500	5	11/05/2023 14:37	WG2161881
Zinc	51.6		0.740	25.0	5	11/05/2023 14:37	WG2161881

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	11/04/2023 02:40	WG2164188
(S) a,a,a-Trifluorotoluene(FID)	*89.1*			*77.0-120*		*11/04/2023 02:40*	WG2164188

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	11/02/2023 14:48	WG2163038
Toluene	0.00143	J	0.00130	0.00500	1	11/02/2023 14:48	WG2163038
Ethylbenzene	U		0.000737	0.00250	1	11/02/2023 14:48	WG2163038
Xylenes, Total	U		0.000880	0.00650	1	11/02/2023 14:48	WG2163038
1,2,4-Trimethylbenzene	0.00268	J	0.00158	0.00500	1	11/02/2023 14:48	WG2163038
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/02/2023 14:48	WG2163038
(S) Toluene-d8	*113*			*75.0-131*		*11/02/2023 14:48*	WG2163038
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/02/2023 14:48*	WG2163038
(S) 1,2-Dichloroethane-d4	*80.9*			*70.0-130*		*11/02/2023 14:48*	WG2163038

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	1.98	J	1.61	4.00	1	11/03/2023 01:10	WG2162843
C28-C36 Motor Oil Range	3.41	B J	0.274	4.00	1	11/03/2023 01:10	WG2162843
(S) o-Terphenyl	*26.0*			*18.0-148*		*11/03/2023 01:10*	WG2162843

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	11/03/2023 23:46	WG2163714
Anthracene	U		0.00230	0.00600	1	11/03/2023 23:46	WG2163714
Benzo(a)anthracene	U		0.00173	0.00600	1	11/03/2023 23:46	WG2163714
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/03/2023 23:46	WG2163714
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/03/2023 23:46	WG2163714
Benzo(a)pyrene	U		0.00179	0.00600	1	11/03/2023 23:46	WG2163714
Chrysene	U		0.00232	0.00600	1	11/03/2023 23:46	WG2163714
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/03/2023 23:46	WG2163714
Fluoranthene	U		0.00227	0.00600	1	11/03/2023 23:46	WG2163714
Fluorene	U		0.00205	0.00600	1	11/03/2023 23:46	WG2163714
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/03/2023 23:46	WG2163714
1-Methylnaphthalene	U		0.00449	0.0200	1	11/03/2023 23:46	WG2163714
2-Methylnaphthalene	U		0.00427	0.0200	1	11/03/2023 23:46	WG2163714
Naphthalene	U		0.00408	0.0200	1	11/03/2023 23:46	WG2163714
Pyrene	U		0.00200	0.00600	1	11/03/2023 23:46	WG2163714
(S) p-Terphenyl-d14	*65.5*			*23.0-120*		*11/03/2023 23:46*	WG2163714
(S) Nitrobenzene-d5	*52.5*			*14.0-149*		*11/03/2023 23:46*	WG2163714
(S) 2-Fluorobiphenyl	*48.7*			*34.0-125*		*11/03/2023 23:46*	WG2163714

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.480		1	11/04/2023 17:51	WG2163189

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.288	J	0.255	1.00	1	11/06/2023 09:38	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.10	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671524-05 WG2162964: 8.1 at 20.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	149		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671524-05 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.271		0.0167	0.200	1	11/06/2023 21:15	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	11.1		0.100	1.00	5	11/05/2023 14:40	WG2161881
Barium	201		0.152	2.50	5	11/05/2023 14:40	WG2161881
Cadmium	0.374	J	0.0855	1.00	5	11/05/2023 14:40	WG2161881
Copper	16.9		0.132	5.00	5	11/05/2023 14:40	WG2161881
Lead	14.0		0.0990	2.00	5	11/05/2023 14:40	WG2161881
Nickel	17.0		0.197	2.50	5	11/05/2023 14:40	WG2161881
Selenium	0.603	J	0.180	2.50	5	11/05/2023 22:16	WG2161881
Silver	U		0.0865	0.500	5	11/05/2023 14:40	WG2161881
Zinc	59.1		0.740	25.0	5	11/05/2023 14:40	WG2161881

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0242	B J	0.0217	0.100	1	11/04/2023 16:51	WG2164449
(S) a,a,a-Trifluorotoluene(FID)	*91.5*			*77.0-120*		*11/04/2023 16:51*	WG2164449

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	11/02/2023 15:07	WG2163038
Toluene	0.00158	J	0.00130	0.00500	1	11/02/2023 15:07	WG2163038
Ethylbenzene	U		0.000737	0.00250	1	11/02/2023 15:07	WG2163038
Xylenes, Total	U		0.000880	0.00650	1	11/02/2023 15:07	WG2163038
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	11/02/2023 15:07	WG2163038
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/02/2023 15:07	WG2163038
(S) Toluene-d8	*114*			*75.0-131*		*11/02/2023 15:07*	WG2163038
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/02/2023 15:07*	WG2163038
(S) 1,2-Dichloroethane-d4	*81.7*			*70.0-130*		*11/02/2023 15:07*	WG2163038

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	9.84		1.61	4.00	1	11/04/2023 11:51	WG2163701
C28-C36 Motor Oil Range	24.9		0.274	4.00	1	11/04/2023 11:51	WG2163701
(S) o-Terphenyl	*23.3*			*18.0-148*		*11/04/2023 11:51*	WG2163701

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	11/04/2023 00:03	WG2163714
Anthracene	U		0.00230	0.00600	1	11/04/2023 00:03	WG2163714
Benzo(a)anthracene	U		0.00173	0.00600	1	11/04/2023 00:03	WG2163714
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/04/2023 00:03	WG2163714
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/04/2023 00:03	WG2163714
Benzo(a)pyrene	U		0.00179	0.00600	1	11/04/2023 00:03	WG2163714
Chrysene	U		0.00232	0.00600	1	11/04/2023 00:03	WG2163714
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/04/2023 00:03	WG2163714
Fluoranthene	U		0.00227	0.00600	1	11/04/2023 00:03	WG2163714
Fluorene	U		0.00205	0.00600	1	11/04/2023 00:03	WG2163714
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/04/2023 00:03	WG2163714
1-Methylnaphthalene	U		0.00449	0.0200	1	11/04/2023 00:03	WG2163714
2-Methylnaphthalene	U		0.00427	0.0200	1	11/04/2023 00:03	WG2163714
Naphthalene	U		0.00408	0.0200	1	11/04/2023 00:03	WG2163714
Pyrene	U		0.00200	0.00600	1	11/04/2023 00:03	WG2163714
(S) p-Terphenyl-d14	*71.7*			*23.0-120*		*11/04/2023 00:03*	WG2163714
(S) Nitrobenzene-d5	*54.7*			*14.0-149*		*11/04/2023 00:03*	WG2163714
(S) 2-Fluorobiphenyl	*44.1*			*34.0-125*		*11/04/2023 00:03*	WG2163714

Method Blank (MB)

(MB) R3995906-1 11/06/23 08:23

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

L1671524-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1671524-02 11/06/23 09:07 • (DUP) R3995906-7 11/06/23 09:12

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	0.329	0.324	1	1.31	J	20

L1671531-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671531-01 11/06/23 09:59 • (DUP) R3995906-8 11/06/23 10:04

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

Laboratory Control Sample (LCS)

(LCS) R3995906-2 11/06/23 08:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	8.73	87.3	80.0-120	

L1671519-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671519-01 11/06/23 08:36 • (MS) R3995906-3 11/06/23 08:41 • (MSD) R3995906-4 11/06/23 08:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	0.534	13.9	14.5	66.9	69.7	1	75.0-125	J6	J6	4.02	20

L1671519-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1671519-01 11/06/23 08:36 • (MS) R3995906-5 11/06/23 08:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	0.534	557	86.8	50	75.0-125	

L1670621-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1670621-01 11/04/23 14:30 • (DUP) R3995483-2 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.58	5.58	1	0.000		1

Sample Narrative:

OS: 5.58 at 20.7C

DUP: 5.58 at 20.9C

L1671516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671516-01 11/04/23 14:30 • (DUP) R3995483-3 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	7.44	7.47	1	0.402		1

Sample Narrative:

OS: 7.44 at 20.8C

DUP: 7.47 at 20.8C

Laboratory Control Sample (LCS)

(LCS) R3995483-1 11/04/23 14:30

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

Sample Narrative:

LCS: 10.01 at 20.5C

Method Blank (MB)

(MB) R3995608-1 11/05/23 13:00

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

Sample Narrative:
BLANK: at 25C

L1671287-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1671287-06 11/05/23 13:00 • (DUP) R3995608-3 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1200	1170	1	2.62		20

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

L1671529-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1671529-02 11/05/23 13:00 • (DUP) R3995608-4 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	103	103	1	0.584		20

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

Laboratory Control Sample (LCS)

(LCS) R3995608-2 11/05/23 13:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	331	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3996295-1 11/06/23 20:29

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

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

(LCS) R3996295-2 11/06/23 20:32 • (LCSD) R3996295-3 11/06/23 20:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.18	1.19	118	119	80.0-120			0.216	20

Method Blank (MB)

(MB) R3994493-1 11/02/23 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R3994493-2 11/02/23 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.9	94.9	80.0-120	
Barium	100	86.4	86.4	80.0-120	
Cadmium	100	97.3	97.3	80.0-120	
Copper	100	84.6	84.6	80.0-120	
Lead	100	88.5	88.5	80.0-120	
Nickel	100	97.1	97.1	80.0-120	
Selenium	100	105	105	80.0-120	
Silver	20.0	18.8	93.8	80.0-120	
Zinc	100	90.9	90.9	80.0-120	

L1671516-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671516-01 11/02/23 11:39 • (MS) R3994493-5 11/02/23 11:49 • (MSD) R3994493-6 11/02/23 11:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	30.5	114	124	83.9	93.9	5	75.0-125			8.40	20
Barium	100	401	482	504	80.6	103	5	75.0-125			4.63	20
Cadmium	100	0.698	96.0	107	95.4	106	5	75.0-125			10.5	20
Copper	100	31.2	113	126	81.5	94.6	5	75.0-125			11.0	20
Lead	100	23.7	112	124	87.9	100	5	75.0-125			10.4	20
Nickel	100	27.9	118	127	89.6	99.0	5	75.0-125			7.74	20
Selenium	100	1.20	102	114	101	113	5	75.0-125			11.2	20
Silver	20.0	0.145	18.9	20.7	93.8	103	5	75.0-125			9.17	20
Zinc	100	74.1	160	172	85.5	97.9	5	75.0-125			7.50	20

Method Blank (MB)

(MB) R3995716-1 11/05/23 13:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Method Blank (MB)

(MB) R3995716-7 11/05/23 21:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	U		0.180	2.50

Laboratory Control Sample (LCS)

(LCS) R3995716-2 11/05/23 13:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	98.4	98.4	80.0-120	
Barium	100	95.1	95.1	80.0-120	
Cadmium	100	97.3	97.3	80.0-120	
Copper	100	88.3	88.3	80.0-120	
Lead	100	94.0	94.0	80.0-120	
Nickel	100	97.7	97.7	80.0-120	
Silver	20.0	20.3	101	80.0-120	
Zinc	100	95.1	95.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3995716-8 11/05/23 21:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	105	105	80.0-120	

L1671538-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671538-01 11/05/23 13:35 • (MS) R3995716-5 11/05/23 13:45 • (MSD) R3995716-6 11/05/23 13:48

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	5.34	94.7	94.6	89.4	89.2	5	75.0-125			0.147	20
Barium	100	63.7	149	188	85.8	124	5	75.0-125		J3	22.9	20
Cadmium	100	0.0859	91.8	92.8	91.7	92.7	5	75.0-125			1.09	20
Copper	100	22.4	102	107	79.5	85.0	5	75.0-125			5.22	20
Lead	100	5.06	91.2	91.7	86.1	86.6	5	75.0-125			0.519	20
Nickel	100	29.9	119	119	89.1	89.1	5	75.0-125			0.0333	20
Silver	20.0	U	19.1	18.8	95.5	94.1	5	75.0-125			1.51	20
Zinc	100	52.5	135	135	82.4	82.9	5	75.0-125			0.379	20

L1671538-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671538-01 11/05/23 21:54 • (MS) R3995716-11 11/05/23 22:03 • (MSD) R3995716-12 11/05/23 22:07

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	100	0.296	103	103	102	103	5	75.0-125	E	E	0.889	20

Method Blank (MB)

(MB) R3995952-2 11/03/23 16:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3995952-1 11/03/23 15:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.62	102	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*77.0-120*	

Method Blank (MB)

(MB) R3995898-3 11/04/23 12:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0218	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*

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

(LCS) R3995898-1 11/04/23 10:41 • (LCSD) R3995898-2 11/04/23 11:30

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 %
TPH (GC/FID) Low Fraction	5.50	6.11	5.26	111	95.6	72.0-127			15.0	20
(S) a,a,a-Trifluorotoluene(FID)				*96.6*	*100*	*77.0-120*				

Method Blank (MB)

(MB) R3994532-3 11/01/23 23:11

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	*105*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*84.0*			*70.0-130*

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

(LCS) R3994532-1 11/01/23 21:36 • (LCSD) R3994532-2 11/01/23 21:55

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	0.120	0.113	96.0	90.4	70.0-123			6.01	20
Toluene	0.125	0.141	0.134	113	107	75.0-121			5.09	20
Ethylbenzene	0.125	0.147	0.140	118	112	74.0-126			4.88	20
Xylenes, Total	0.375	0.418	0.437	111	117	72.0-127			4.44	20
1,2,4-Trimethylbenzene	0.125	0.140	0.133	112	106	70.0-126			5.13	20
1,3,5-Trimethylbenzene	0.125	0.137	0.131	110	105	73.0-127			4.48	20
(S) Toluene-d8				*111*	*111*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*106*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*88.2*	*87.0*	*70.0-130*				

L1671422-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671422-04 11/02/23 04:11 • (MS) R3994532-4 11/02/23 07:02 • (MSD) R3994532-5 11/02/23 07:21

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.138	U	0.118	0.0972	87.4	72.0	1.08	10.0-149			19.3	37
Toluene	0.138	U	0.140	0.112	104	83.0	1.08	10.0-156			22.2	38
Ethylbenzene	0.138	U	0.155	0.121	115	89.6	1.08	10.0-160			24.6	38
Xylenes, Total	0.413	U	0.424	0.382	105	94.3	1.08	10.0-160			10.4	38
1,2,4-Trimethylbenzene	0.138	U	0.154	0.123	114	91.1	1.08	10.0-160			22.4	36
1,3,5-Trimethylbenzene	0.138	U	0.152	0.122	113	90.4	1.08	10.0-160			21.9	38
(S) Toluene-d8					*108*	*112*		*75.0-131*				
(S) 4-Bromofluorobenzene					*104*	*105*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*87.9*	*90.3*		*70.0-130*				

Method Blank (MB)

(MB) R3995870-3 11/02/23 10:48

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	*103*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*84.9*			*70.0-130*

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

(LCS) R3995870-1 11/02/23 09:14 • (LCSD) R3995870-2 11/02/23 09:33

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	0.122	0.128	97.6	102	70.0-123			4.80	20
Toluene	0.125	0.141	0.141	113	113	75.0-121			0.000	20
Ethylbenzene	0.125	0.148	0.149	118	119	74.0-126			0.673	20
Xylenes, Total	0.375	0.454	0.464	121	124	72.0-127			2.18	20
1,2,4-Trimethylbenzene	0.125	0.141	0.146	113	117	70.0-126			3.48	20
1,3,5-Trimethylbenzene	0.125	0.137	0.146	110	117	73.0-127			6.36	20
(S) Toluene-d8				*108*	*112*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.9*	*106*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*91.2*	*91.6*	*70.0-130*				

Method Blank (MB)

(MB) R3994901-1 11/03/23 00:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	0.408	J	0.274	4.00
(S) o-Terphenyl	*61.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3994901-2 11/03/23 00:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	31.8	63.6	50.0-150	
(S) o-Terphenyl			*45.8*	*18.0-148*	

L1671422-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671422-04 11/03/23 05:20 • (MS) R3994901-3 11/03/23 05:33 • (MSD) R3994901-4 11/03/23 05:45

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.8	13.6	61.3	37.5	95.8	48.0	5	50.0-150		J3 J6	48.2	20
(S) o-Terphenyl					*50.2*	*43.1*		*18.0-148*				

Sample Narrative:

OS: Cannot run at lower dilution due to viscosity of extract

Method Blank (MB)

(MB) R3995466-1 11/04/23 11:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*64.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3995466-2 11/04/23 12:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	28.3	56.6	50.0-150	
(S) o-Terphenyl			*58.0*	*18.0-148*	

L1671422-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671422-05 11/04/23 13:19 • (MS) R3995467-1 11/04/23 13:31 • (MSD) R3995467-2 11/04/23 13:43

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	47.9	U	U	89.2	0.000	183	50	50.0-150	J6	J3 J5	200	20
(S) o-Terphenyl					*27.6*	*31.7*		*18.0-148*	J7	J7		

Sample Narrative:

OS: Cannot run at lower dilution due to viscosity of extract

Method Blank (MB)

(MB) R3995821-2 11/03/23 18:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	*102*			*23.0-120*
(S) Nitrobenzene-d5	*97.7*			*14.0-149*
(S) 2-Fluorobiphenyl	*90.2*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3995821-1 11/03/23 17:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0581	72.6	50.0-120	
Anthracene	0.0800	0.0555	69.4	50.0-126	
Benzo(a)anthracene	0.0800	0.0568	71.0	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0692	86.5	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0623	77.9	49.0-125	
Benzo(a)pyrene	0.0800	0.0590	73.8	42.0-120	
Chrysene	0.0800	0.0663	82.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0585	73.1	47.0-125	
Fluoranthene	0.0800	0.0637	79.6	49.0-129	
Fluorene	0.0800	0.0630	78.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0626	78.3	46.0-125	
1-Methylnaphthalene	0.0800	0.0610	76.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0632	79.0	50.0-120	
Naphthalene	0.0800	0.0591	73.9	50.0-120	
Pyrene	0.0800	0.0710	88.8	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3995821-1 11/03/23 17:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*83.5*	*23.0-120*	
(S) Nitrobenzene-d5			*94.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*83.5*	*34.0-125*	

L1671422-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671422-04 11/03/23 23:08 • (MS) R3995821-3 11/03/23 23:26 • (MSD) R3995821-4 11/03/23 23:43

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0792	U	0.0596	0.0594	75.3	73.9	1	14.0-127			0.336	27
Anthracene	0.0792	U	0.0586	0.0589	74.0	73.3	1	10.0-145			0.511	30
Benzo(a)anthracene	0.0792	0.0103	0.0727	0.0771	78.8	83.1	1	10.0-139			5.87	30
Benzo(b)fluoranthene	0.0792	0.0776	0.123	0.139	57.3	76.4	1	10.0-140			12.2	36
Benzo(k)fluoranthene	0.0792	U	0.0789	0.0837	99.6	104	1	10.0-137			5.90	31
Benzo(a)pyrene	0.0792	0.0215	0.0821	0.0879	76.5	82.6	1	10.0-141			6.82	31
Chrysene	0.0792	0.0248	0.0957	0.104	89.5	98.5	1	10.0-145			8.31	30
Dibenz(a,h)anthracene	0.0792	0.00628	0.0702	0.0741	80.7	84.4	1	10.0-132			5.41	31
Fluoranthene	0.0792	0.0307	0.0886	0.0956	73.1	80.7	1	10.0-153			7.60	33
Fluorene	0.0792	U	0.0632	0.0638	79.8	79.4	1	11.0-130			0.945	29
Indeno(1,2,3-cd)pyrene	0.0792	0.0487	0.109	0.121	76.1	89.9	1	10.0-137			10.4	32
1-Methylnaphthalene	0.0792	U	0.0629	0.0624	79.4	77.6	1	10.0-142			0.798	28
2-Methylnaphthalene	0.0792	U	0.0650	0.0645	82.1	80.2	1	10.0-137			0.772	28
Naphthalene	0.0792	U	0.0615	0.0617	77.7	76.7	1	10.0-135			0.325	27
Pyrene	0.0792	0.0262	0.0871	0.0915	76.9	81.2	1	10.0-148			4.93	35
(S) p-Terphenyl-d14					*76.5*	*74.2*		*23.0-120*				
(S) Nitrobenzene-d5					*100*	*95.5*		*14.0-149*				
(S) 2-Fluorobiphenyl					*83.3*	*80.6*		*34.0-125*				

Method Blank (MB)

(MB) R3995718-2 11/03/23 22:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	*83.5*			*23.0-120*
(S) Nitrobenzene-d5	*60.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*66.1*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3995718-1 11/03/23 22:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0645	80.6	50.0-120	
Anthracene	0.0800	0.0663	82.9	50.0-126	
Benzo(a)anthracene	0.0800	0.0752	94.0	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0698	87.3	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0675	84.4	49.0-125	
Benzo(a)pyrene	0.0800	0.0687	85.9	42.0-120	
Chrysene	0.0800	0.0733	91.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0727	90.9	47.0-125	
Fluoranthene	0.0800	0.0768	96.0	49.0-129	
Fluorene	0.0800	0.0684	85.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0813	102	46.0-125	
1-Methylnaphthalene	0.0800	0.0669	83.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0649	81.1	50.0-120	
Naphthalene	0.0800	0.0610	76.3	50.0-120	
Pyrene	0.0800	0.0728	91.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3995718-1 11/03/23 22:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*85.7*	*23.0-120*	
(S) Nitrobenzene-d5			*67.6*	*14.0-149*	
(S) 2-Fluorobiphenyl			*68.0*	*34.0-125*	

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
T8	Sample(s) received past/too close to holding time expiration.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

B159

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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 Number or MTJL Log-in Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Company: Caerus Oil and Gas LLC	Billing Information: Info on file
Address: Info on file	
Report To: Jake Janicek, Brett Middleton, Blair Rollins, Andrew Verbonitz	Email To: info on file
Copy To: Chris McKisson, remediation@confluence-cc.com	Site Collection Info/Address:
Customer Project Name/Number: Puckett 264-1 PBV Closure	State: CO / County/City: Garfield / Time Zone Collected: [ ]PT [X]MT [ ]CT [ ]ET
Phone: / Email:	Site/Facility ID #: Puckett 264-1 / Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Alex Slorby	Purchase Order # : / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature): Alex Slorby	Turnaround Date Required: **Standard Turnaround** / Immediately Packed on Ice: [X] Yes [ ] No
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: _____

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 _____

* 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) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	Table 915-1 VOC's	TPH (ORO, GRO, DRO)	Table 915-1 Metal's	Table 915-1 PAHs	pH, EC, SAR	Boron (Hot Water Soluble Soil)	CR6IC	Analyses
20231026-PUCKETT 264-1-(BASE)@4	SL	G	10/26/2023	1230				4	G	X	X	X	X	X	X	X	
20231026-PUCKETT 264-1-(NW)@3	SL	G	10/26/2023	1240				4	G	X	X	X	X	X	X	X	
20231026-PUCKETT 264-1-(WW)@2.5	SL	G	10/26/2023	1245				4	G	X	X	X	X	X	X	X	
20231026-PUCKETT 264-1-(SW)@2.5	SL	G	10/26/2023	1250				4	G	X	X	X	X	X	X	X	
20231026-PUCKETT 264-1-(EW)@2.5	SL	G	10/26/2023	1255				4	G	X	X	X	X	X	X	X	

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:
L1171524
-01
-02
-03
-04
-05

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

Custo

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 #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: __oC
Cooler 1 Therm Corr. Factor: __oC
Cooler 1 Corrected Temp: _____oC
Comments:

Relinquished by/Company: (Signature) Alex Slorby	Date/Time: 10/27/2023 1100	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time: 10/27/23 1200	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 10.28.23

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

9:00

LL671524

Tracking Numbers	[redacted]	Temperature
5882 7564 7835		CCAR 4.6 to 24.6
5882 7564 7824		CCAR 1.3 to 1.3

Name

Date

ANALYTICAL REPORT

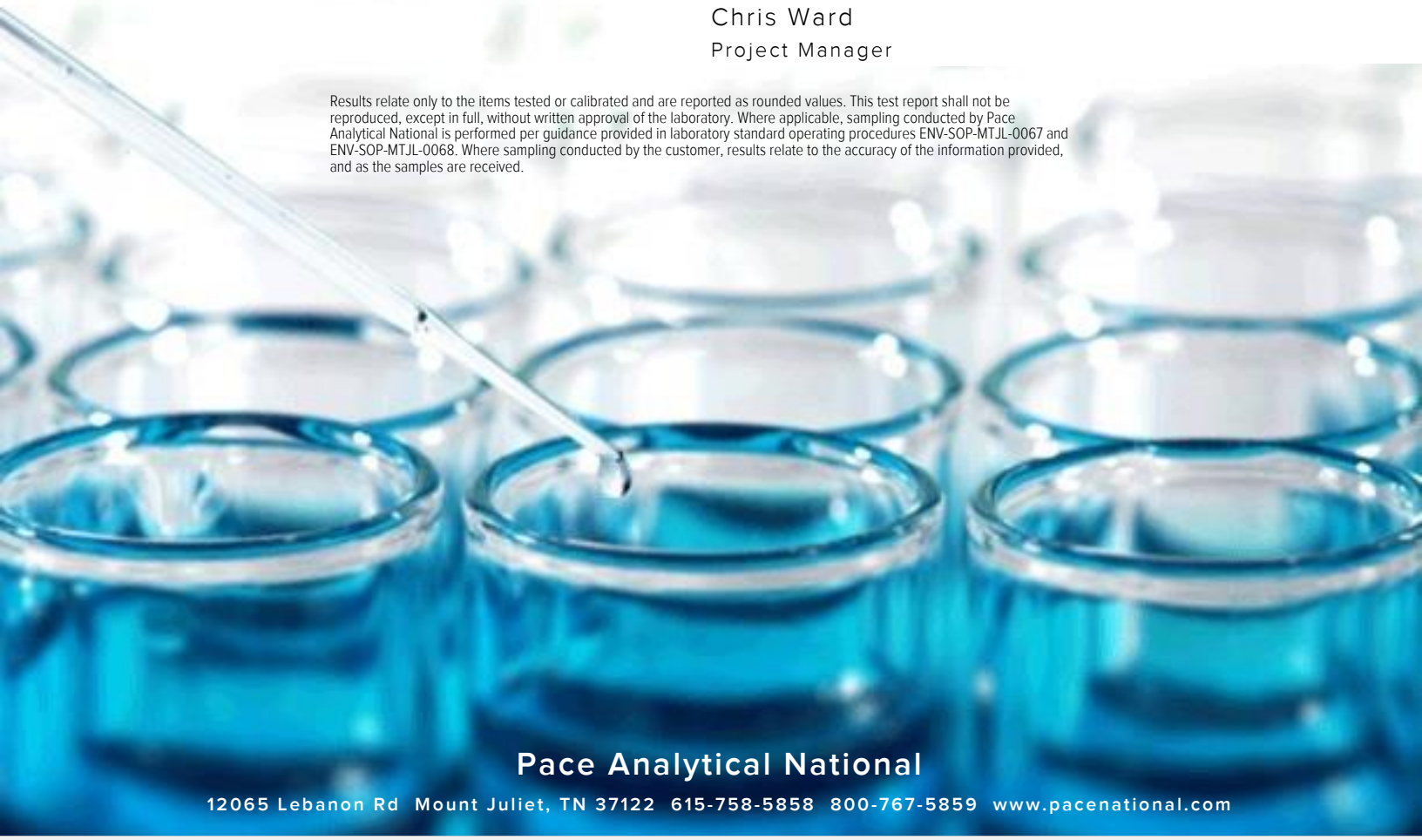
November 07, 2023

Caerus Oil and Gas

Sample Delivery Group:	L1671516
Samples Received:	10/28/2023
Project Number:	
Description:	Puckett 264-1 Backgrounds
Site:	PUCKETT 264-1
Report To:	Jake J. / Brett M. / Blair R. / Andy V. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By:

Chris Ward
Project Manager



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

TABLE OF CONTENTS

SAMPLE SUMMARY

20231026-LMBG-(PUCKETT 264-1-N)@2 L1671516-01 Solid

Collected by: Alex Slorby
Collected date/time: 10/26/23 13:45
Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 18:06	11/04/23 18:06	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2163827	1	11/03/23 09:07	11/06/23 04:24	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 21:21	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161880	5	11/01/23 07:52	11/02/23 11:39	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

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	SAR				
Sodium Adsorption Ratio	0.153		1	11/04/2023 18:06	WG2163189

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	11/06/2023 04:24	WG2163827

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.44	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671516-01 WG2162964: 7.44 at 20.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	202		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671516-01 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.626		0.0167	0.200	1	11/06/2023 21:21	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	30.5		0.100	1.00	5	11/02/2023 11:39	WG2161880
Barium	401		0.152	2.50	5	11/02/2023 11:39	WG2161880
Cadmium	0.698	J	0.0855	1.00	5	11/02/2023 11:39	WG2161880
Copper	31.2		0.132	5.00	5	11/02/2023 11:39	WG2161880
Lead	23.7		0.0990	2.00	5	11/02/2023 11:39	WG2161880
Nickel	27.9		0.197	2.50	5	11/02/2023 11:39	WG2161880
Selenium	1.20	J	0.180	2.50	5	11/02/2023 11:39	WG2161880
Silver	0.145	J	0.0865	0.500	5	11/02/2023 11:39	WG2161880
Zinc	74.1		0.740	25.0	5	11/02/2023 11:39	WG2161880

QUALITY CONTROL SUMMARY

L1671516-01

Method Blank (MB)

(MB) R3995747-1 11/06/23 02:48

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

L1671476-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1671476-03 11/06/23 03:32 • (DUP) R3995747-7 11/06/23 03:37

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

L1671529-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671529-01 11/06/23 04:29 • (DUP) R3995747-8 11/06/23 04:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	0.351	U	1	200	P1	20

Laboratory Control Sample (LCS)

(LCS) R3995747-2 11/06/23 02:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	9.58	95.8	80.0-120	

L1671476-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671476-01 11/06/23 03:01 • (MS) R3995747-4 11/06/23 03:11 • (MSD) R3995747-5 11/06/23 03:17

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	U	U	0.000	0.000	1	75.0-125	J6	J6	0.000	20

L1671476-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1671476-01 11/06/23 03:01 • (MS) R3995747-6 11/06/23 03:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	643	U	602	94.0	50	75.0-125	

L1670621-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1670621-01 11/04/23 14:30 • (DUP) R3995483-2 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.58	5.58	1	0.000		1

Sample Narrative:

OS: 5.58 at 20.7C

DUP: 5.58 at 20.9C

L1671516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671516-01 11/04/23 14:30 • (DUP) R3995483-3 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	7.44	7.47	1	0.402		1

Sample Narrative:

OS: 7.44 at 20.8C

DUP: 7.47 at 20.8C

Laboratory Control Sample (LCS)

(LCS) R3995483-1 11/04/23 14:30

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

Sample Narrative:

LCS: 10.01 at 20.5C

Method Blank (MB)

(MB) R3995608-1 11/05/23 13:00

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

Sample Narrative:
BLANK: at 25C

L1671287-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1671287-06 11/05/23 13:00 • (DUP) R3995608-3 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1200	1170	1	2.62		20

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

L1671529-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1671529-02 11/05/23 13:00 • (DUP) R3995608-4 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	103	103	1	0.584		20

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

Laboratory Control Sample (LCS)

(LCS) R3995608-2 11/05/23 13:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	331	101	85.0-115	

Sample Narrative:
LCS: at 25C

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

Method Blank (MB)

(MB) R3996295-1 11/06/23 20:29

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

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

(LCS) R3996295-2 11/06/23 20:32 • (LCSD) R3996295-3 11/06/23 20:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.18	1.19	118	119	80.0-120			0.216	20

Method Blank (MB)

(MB) R3994493-1 11/02/23 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R3994493-2 11/02/23 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.9	94.9	80.0-120	
Barium	100	86.4	86.4	80.0-120	
Cadmium	100	97.3	97.3	80.0-120	
Copper	100	84.6	84.6	80.0-120	
Lead	100	88.5	88.5	80.0-120	
Nickel	100	97.1	97.1	80.0-120	
Selenium	100	105	105	80.0-120	
Silver	20.0	18.8	93.8	80.0-120	
Zinc	100	90.9	90.9	80.0-120	

L1671516-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671516-01 11/02/23 11:39 • (MS) R3994493-5 11/02/23 11:49 • (MSD) R3994493-6 11/02/23 11:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	30.5	114	124	83.9	93.9	5	75.0-125			8.40	20
Barium	100	401	482	504	80.6	103	5	75.0-125			4.63	20
Cadmium	100	0.698	96.0	107	95.4	106	5	75.0-125			10.5	20
Copper	100	31.2	113	126	81.5	94.6	5	75.0-125			11.0	20
Lead	100	23.7	112	124	87.9	100	5	75.0-125			10.4	20
Nickel	100	27.9	118	127	89.6	99.0	5	75.0-125			7.74	20
Selenium	100	1.20	102	114	101	113	5	75.0-125			11.2	20
Silver	20.0	0.145	18.9	20.7	93.8	103	5	75.0-125			9.17	20
Zinc	100	74.1	160	172	85.5	97.9	5	75.0-125			7.50	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.
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
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.
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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

B156

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

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 Pa... Number or MTJL Log-in Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Company: Caerus Oil and Gas LLC	Billing Information: Info on file
Address: Info on file	
Report To: Jake Janicek, Brett Middleton, Blair Rollins, Andy Verbonitz	Email To: Info on file
Copy To: Chris McKisson, remediation@confluence-cc.com	Site Collection Info/Address:
Customer Project Name/Number: Puckett 264-1 Backgrounds	State: CO / Garfield County/City: Time Zone Collected: [ ]PT [X]MT [ ]CT [ ]ET
Phone: Email:	Site/Facility ID #: Puckett 264-1
Collected By (print): Alex Slorby	Purchase Order # : Quote #:
Collected By (signature): Alex Slorby	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

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

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 _____

* 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) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	EC, SAR, pH	Table 915-1 Metals	Boron - Hot Water Soluble	CR6IC
20231026-LMBG-(PUCKETT 264-1-N)@2	SL	G	10/26/2023	1345				3	G	X	X	X	X

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:

L1671516
-01

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N	Pres. Correct/Check:	Y N
Bottles arrive intact:	Y N		
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

Customer Remarks / Special Conditions / Possible Hazards:

Please store all extra material for additional analysis.

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 #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: _____

Cooler 1 Temp Upon Receipt: __oC

Cooler 1 Therm Corr. Factor: __oC

Cooler 1 Corrected Temp: _____oC

Comments:

Relinquished by/Company: (Signature) Alex Slorby	Date/Time: 10/27/2023 1400	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time: 102723 1200	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 10.28.23 9:20

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

L16715164

Tracking Numbers		Temperature
5882 7564 7835		CCAR 4.6 to 24.6
5882 7564 7824		CCAR 1.3 to 1.3

Name

Date

ANALYTICAL REPORT

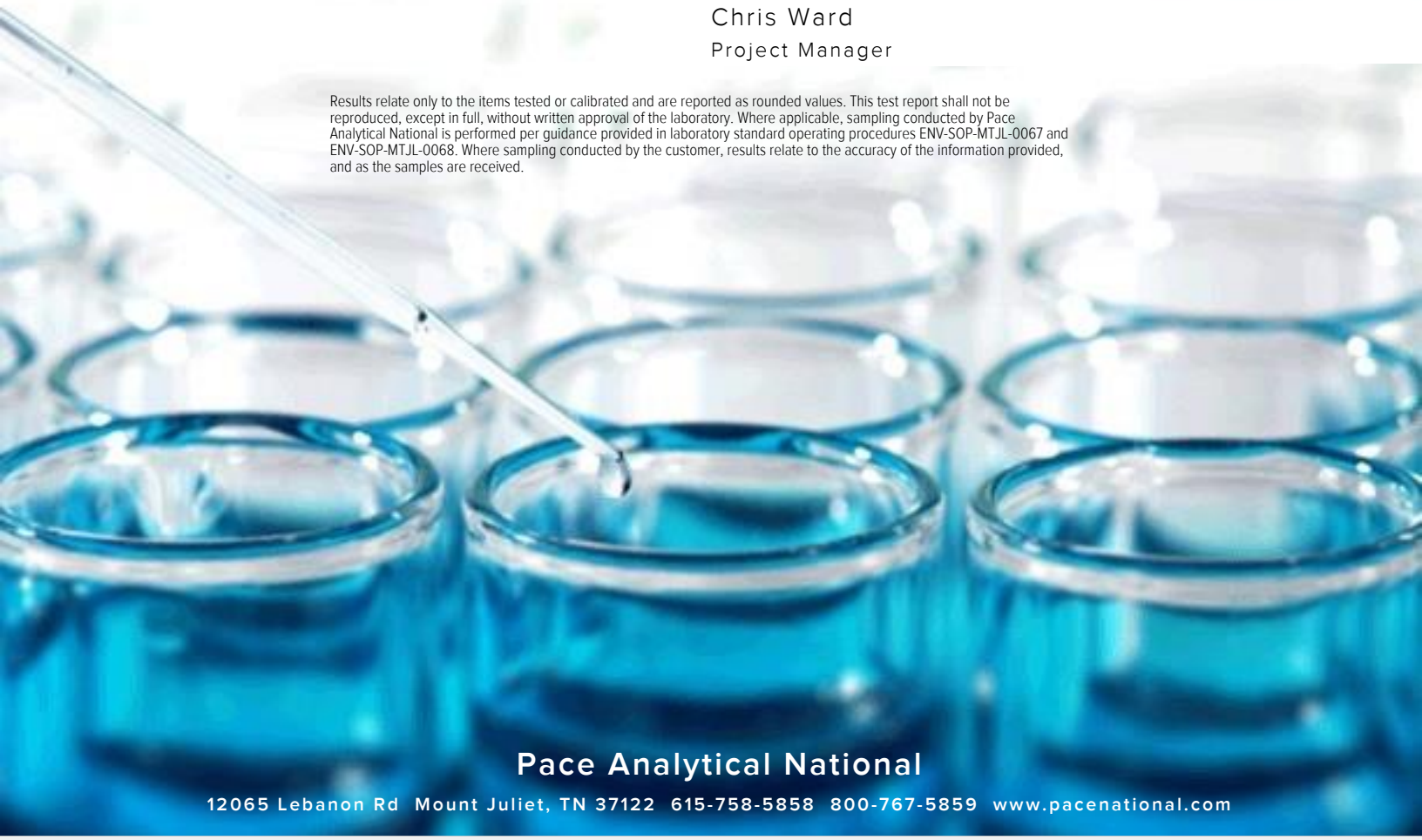
November 07, 2023

Caerus Oil and Gas

Sample Delivery Group:	L1671519
Samples Received:	10/28/2023
Project Number:	
Description:	Puckett 264-1 Backgrounds
Site:	PUCKETT 264-1
Report To:	Jake J. / Brett M. / Blair R. / Andy V. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



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

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SAMPLE SUMMARY

20231026-LMBG-(PUCKETT 264-1-W)@3 L1671519-01 Solid

Collected by: Alex Slorby
Collected date/time: 10/26/23 13:25
Received date/time: 10/28/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2163189	1	11/04/23 16:55	11/04/23 16:55	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2162017	1	11/01/23 08:44	11/06/23 08:36	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2162964	1	11/04/23 14:15	11/04/23 14:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2163769	1	11/05/23 12:30	11/05/23 13:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2165170	1	11/06/23 12:33	11/06/23 21:18	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2161880	5	11/01/23 07:52	11/02/23 14:35	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

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.140		1	11/04/2023 16:55	WG2163189

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.534	J J6	0.255	1.00	1	11/06/2023 08:36	WG2162017

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	6.95	T8	1	11/04/2023 14:30	WG2162964

Sample Narrative:

L1671519-01 WG2162964: 6.95 at 20.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	77.3		10.0	1	11/05/2023 13:00	WG2163769

Sample Narrative:

L1671519-01 WG2163769: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.276		0.0167	0.200	1	11/06/2023 21:18	WG2165170

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	11.7		0.100	1.00	5	11/02/2023 14:35	WG2161880
Barium	224		0.152	2.50	5	11/02/2023 14:35	WG2161880
Cadmium	0.356	J	0.0855	1.00	5	11/02/2023 14:35	WG2161880
Copper	25.5		0.132	5.00	5	11/02/2023 14:35	WG2161880
Lead	16.7		0.0990	2.00	5	11/02/2023 14:35	WG2161880
Nickel	23.9		0.197	2.50	5	11/02/2023 14:35	WG2161880
Selenium	0.611	J	0.180	2.50	5	11/02/2023 14:35	WG2161880
Silver	0.108	J	0.0865	0.500	5	11/02/2023 14:35	WG2161880
Zinc	63.4		0.740	25.0	5	11/02/2023 14:35	WG2161880

Method Blank (MB)

(MB) R3995906-1 11/06/23 08:23

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

L1671524-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1671524-02 11/06/23 09:07 • (DUP) R3995906-7 11/06/23 09:12

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	0.329	0.324	1	1.31	J	20

L1671531-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671531-01 11/06/23 09:59 • (DUP) R3995906-8 11/06/23 10:04

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

Laboratory Control Sample (LCS)

(LCS) R3995906-2 11/06/23 08:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	8.73	87.3	80.0-120	

L1671519-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671519-01 11/06/23 08:36 • (MS) R3995906-3 11/06/23 08:41 • (MSD) R3995906-4 11/06/23 08:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	0.534	13.9	14.5	66.9	69.7	1	75.0-125	J6	J6	4.02	20

L1671519-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1671519-01 11/06/23 08:36 • (MS) R3995906-5 11/06/23 08:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	0.534	557	86.8	50	75.0-125	

L1670621-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1670621-01 11/04/23 14:30 • (DUP) R3995483-2 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.58	5.58	1	0.000		1

Sample Narrative:

OS: 5.58 at 20.7C

DUP: 5.58 at 20.9C

L1671516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671516-01 11/04/23 14:30 • (DUP) R3995483-3 11/04/23 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	7.44	7.47	1	0.402		1

Sample Narrative:

OS: 7.44 at 20.8C

DUP: 7.47 at 20.8C

Laboratory Control Sample (LCS)

(LCS) R3995483-1 11/04/23 14:30

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

Sample Narrative:

LCS: 10.01 at 20.5C

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

Method Blank (MB)

(MB) R3995608-1 11/05/23 13:00

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

Sample Narrative:
BLANK: at 25C

L1671287-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1671287-06 11/05/23 13:00 • (DUP) R3995608-3 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1200	1170	1	2.62		20

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

L1671529-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1671529-02 11/05/23 13:00 • (DUP) R3995608-4 11/05/23 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	103	103	1	0.584		20

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

Laboratory Control Sample (LCS)

(LCS) R3995608-2 11/05/23 13:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	331	101	85.0-115	

Sample Narrative:
LCS: at 25C

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

QUALITY CONTROL SUMMARY

L1671519-01

Method Blank (MB)

(MB) R3996295-1 11/06/23 20:29

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

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

(LCS) R3996295-2 11/06/23 20:32 • (LCSD) R3996295-3 11/06/23 20:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.18	1.19	118	119	80.0-120			0.216	20

Method Blank (MB)

(MB) R3994493-1 11/02/23 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R3994493-2 11/02/23 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.9	94.9	80.0-120	
Barium	100	86.4	86.4	80.0-120	
Cadmium	100	97.3	97.3	80.0-120	
Copper	100	84.6	84.6	80.0-120	
Lead	100	88.5	88.5	80.0-120	
Nickel	100	97.1	97.1	80.0-120	
Selenium	100	105	105	80.0-120	
Silver	20.0	18.8	93.8	80.0-120	
Zinc	100	90.9	90.9	80.0-120	

L1671516-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671516-01 11/02/23 11:39 • (MS) R3994493-5 11/02/23 11:49 • (MSD) R3994493-6 11/02/23 11:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	30.5	114	124	83.9	93.9	5	75.0-125			8.40	20
Barium	100	401	482	504	80.6	103	5	75.0-125			4.63	20
Cadmium	100	0.698	96.0	107	95.4	106	5	75.0-125			10.5	20
Copper	100	31.2	113	126	81.5	94.6	5	75.0-125			11.0	20
Lead	100	23.7	112	124	87.9	100	5	75.0-125			10.4	20
Nickel	100	27.9	118	127	89.6	99.0	5	75.0-125			7.74	20
Selenium	100	1.20	102	114	101	113	5	75.0-125			11.2	20
Silver	20.0	0.145	18.9	20.7	93.8	103	5	75.0-125			9.17	20
Zinc	100	74.1	160	172	85.5	97.9	5	75.0-125			7.50	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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

B157

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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 Number or MTJL Log-in Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

Company: Caerus Oil and Gas LLC	Billing Information: Info on file
Address: Info on file	
Report To: Jake Janicek, Brett Middleton, Blair Rollins, Andy Verbonitz	Email To: Info on file
Copy To: Chris McKisson, remediation@confluence-cc.com	Site Collection Info/Address:
Customer Project Name/Number: Puckett 264-1 Backgrounds	State: CO / Garfield; County/City: ; Time Zone Collected: [ ]PT [X]MT [ ]CT [ ]ET
Phone: / Email:	Site/Facility ID #: Puckett 264-1
Collected By (print): Alex Slorby	Purchase Order # : / Quote #:
Collected By (signature): Alex Slorby	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

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #: / DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

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 _____

* 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) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	EC, SAR, pH	Table 915-1 Metals	Boron - Hot Water Soluble	CR6IC							
20231026-LMBG-(PUCKETT 264-1-W)@3	SL	G	10/26/2023	1325				3	G	X	X	X	X							

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:

L1671519

-01

Sample Receipt Checklist

COC Seal Present/Intact:	Y	N	If Applicable
COC Signed/Accurate:	Y	N	VOA Zero Headspace: Y N
Bottles arrive intact:	Y	N	Pres. Correct/Check: Y N
Correct bottles used:	Y	N	
Sufficient volume sent:	Y	N	
RA Screen <0.5 mR/hr:			

Customer Remarks / Special Conditions / Possible Hazards:

Please store all extra material for additional analysis.

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 #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: _____

Cooler 1 Temp Upon Receipt: __oC

Cooler 1 Therm Corr. Factor: __oC

Cooler 1 Corrected Temp: _____oC

Comments:

Relinquished by/Company: (Signature) Alex Slorby	Date/Time: 10/27/2023 1100	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time: 10/27/23 1200	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 10.28.23 9:00

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

11/07/19

Tracking Numbers	[redacted]	Temperature
5882 7564 7835		CCAF 4.6 to 24.6
5882 7564 7824		CCAF 1.3 to 1.3

Name

Date