ANALYTICAL REPORT

April 25, 2023

Revised Report

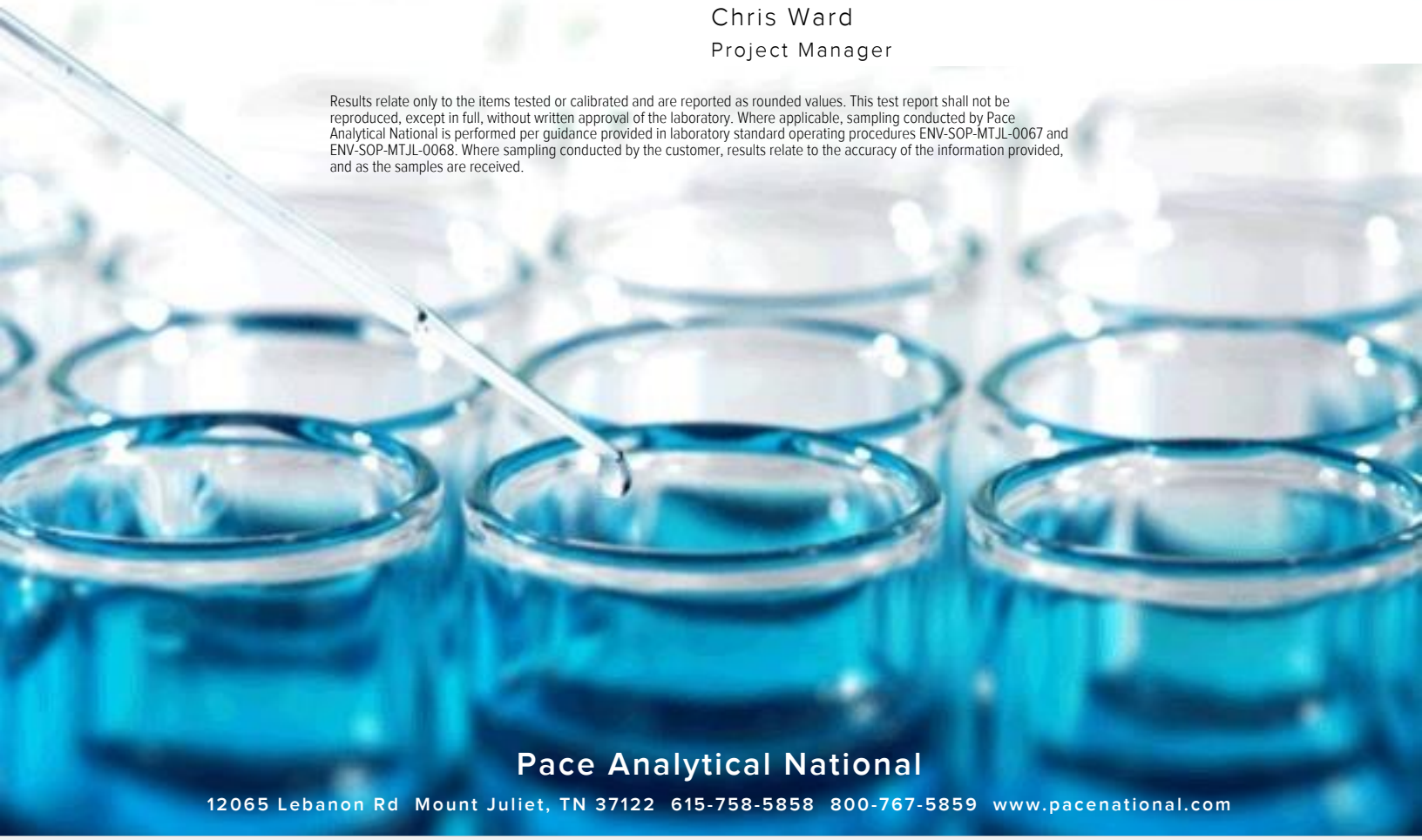
Caerus Oil and Gas

Sample Delivery Group:	L1575939
Samples Received:	01/13/2023
Project Number:	
Description:	909J

Report To: Brett M. , Jake J. , Blair R.
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

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8D-TANK-WMFK L1575939-01 GW

Collected by: Will Harmon | Collected date/time: 01/12/23 11:30 | Received date/time: 01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2044212	1	04/19/23 06:12	04/19/23 09:52	MMF	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2015	WG1988902	1	01/14/23 20:04	01/14/23 21:17	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1990887	1	01/20/23 09:29	01/20/23 09:29	ARD	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1989493	1	01/16/23 09:39	01/16/23 14:03	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG1988623	1	01/13/23 22:27	01/13/23 22:27	KAD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG1988580	1	01/18/23 11:00	01/18/23 11:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	10	01/13/23 21:06	01/13/23 21:06	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	100	01/13/23 21:19	01/13/23 21:19	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1989340	10	01/17/23 10:45	01/17/23 22:17	ABL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1990657	50	01/18/23 23:07	01/18/23 23:07	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1988743	500	01/14/23 15:56	01/14/23 15:56	GH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1989116	1	01/17/23 07:23	01/17/23 15:30	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1989116	50	01/17/23 07:23	01/18/23 11:44	TJD	Mt. Juliet, TN

17L-18748-WMFK L1575939-02 GW

Collected by: Will Harmon | Collected date/time: 01/12/23 12:20 | Received date/time: 01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2044212	1	04/19/23 06:12	04/19/23 09:52	MMF	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2015	WG1988919	1	01/14/23 21:23	01/14/23 23:50	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1990887	1	01/20/23 09:34	01/20/23 09:34	ARD	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1989493	1	01/16/23 09:39	01/16/23 14:04	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG1988757	1	01/14/23 18:47	01/14/23 18:47	KAD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG1988580	1	01/18/23 11:00	01/18/23 11:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	10	01/13/23 21:32	01/13/23 21:32	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	100	01/13/23 21:44	01/13/23 21:44	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1989340	10	01/17/23 10:45	01/17/23 22:20	ABL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1990657	50	01/18/23 23:28	01/18/23 23:28	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1988743	1000	01/14/23 16:18	01/14/23 16:18	GH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1989116	1	01/17/23 07:23	01/17/23 15:53	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1989116	50	01/17/23 07:23	01/18/23 12:05	TJD	Mt. Juliet, TN

8A-18551-WMFK L1575939-03 GW

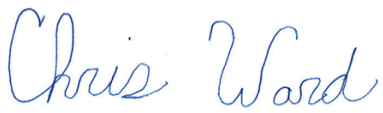
Collected by: Will Harmon | Collected date/time: 01/12/23 09:10 | Received date/time: 01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2044212	1	04/19/23 06:12	04/19/23 09:52	MMF	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2015	WG1988919	1	01/14/23 21:23	01/14/23 23:50	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1990887	1	01/20/23 09:39	01/20/23 09:39	ARD	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1989493	1	01/16/23 09:39	01/16/23 14:05	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG1988757	1	01/14/23 18:47	01/14/23 18:47	KAD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG1988580	1	01/18/23 11:00	01/18/23 11:00	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	10	01/13/23 21:57	01/13/23 21:57	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1988557	100	01/13/23 22:35	01/13/23 22:35	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1989340	10	01/17/23 10:45	01/17/23 22:23	ABL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1990170	250	01/18/23 12:00	01/18/23 12:00	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1988743	1000	01/14/23 16:40	01/14/23 16:40	GH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1989116	20	01/17/23 07:23	01/18/23 12:45	TJD	Mt. Juliet, TN

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

CASE NARRATIVE

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



Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 01/20/23 13:01

Project Narrative

Added TDS

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1575939-01	8D-TANK-WMFK	8260B
L1575939-03	8A-18551-WMFK	8260B

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	13800	J3 Q	400	1	04/19/2023 09:52	WG2044212

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Suspended Solids	85.2	J4	10.0	1	01/14/2023 21:17	WG1988902

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	525		8.45	20.0	1	01/20/2023 09:29	WG1990887
Alkalinity,Bicarbonate	525		8.45	20.0	1	01/20/2023 09:29	WG1990887
Alkalinity,Carbonate	U		8.45	20.0	1	01/20/2023 09:29	WG1990887

Sample Narrative:

L1575939-01 WG1990887: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 365.4

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Total	0.221		0.0350	0.100	1	01/16/2023 14:03	WG1989493

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	6.67	T8	1	01/13/2023 22:27	WG1988623

Sample Narrative:

L1575939-01 WG1988623: 6.67 at 19C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	27600		10.0	1	01/18/2023 11:00	WG1988580

Sample Narrative:

L1575939-01 WG1988580: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Bromide	62.1	B	3.53	10.0	10	01/13/2023 21:06	WG1988557
Chloride	9910		37.9	100	100	01/13/2023 21:19	WG1988557
Fluoride	U		0.640	1.50	10	01/13/2023 21:06	WG1988557
Nitrate as (N)	U		0.480	1.00	10	01/13/2023 21:06	WG1988557
Nitrite as (N)	U		0.420	1.00	10	01/13/2023 21:06	WG1988557
Sulfate	6.79	J	5.94	50.0	10	01/13/2023 21:06	WG1988557

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Barium	71.1		0.00736	0.0500	10	01/17/2023 22:17	WG1989340
Boron	4.09		0.200	2.00	10	01/17/2023 22:17	WG1989340
Calcium	164		0.793	10.0	10	01/17/2023 22:17	WG1989340
Iron	63.2		0.180	1.00	10	01/17/2023 22:17	WG1989340
Magnesium	20.1		0.853	10.0	10	01/17/2023 22:17	WG1989340
Manganese	0.897		0.00934	0.100	10	01/17/2023 22:17	WG1989340
Potassium	95.8		2.61	20.0	10	01/17/2023 22:17	WG1989340
Selenium	U		0.0735	0.100	10	01/17/2023 22:17	WG1989340
Sodium	5950		5.04	30.0	10	01/17/2023 22:17	WG1989340
Strontium	34.9		0.00640	0.100	10	01/17/2023 22:17	WG1989340

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	100		1.57	5.00	50	01/18/2023 23:07	WG1990657
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*78.0-120*		*01/18/2023 23:07*	WG1990657

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	8.11		0.0471	0.500	500	01/14/2023 15:56	WG1988743
Toluene	17.4		0.139	0.500	500	01/14/2023 15:56	WG1988743
Ethylbenzene	0.758		0.0685	0.500	500	01/14/2023 15:56	WG1988743
Xylenes, Total	13.6		0.0870	1.50	500	01/14/2023 15:56	WG1988743
Naphthalene	U		0.500	2.50	500	01/14/2023 15:56	WG1988743
(S) Toluene-d8	*108*			*80.0-120*		*01/14/2023 15:56*	WG1988743
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*		*01/14/2023 15:56*	WG1988743
(S) 1,2-Dichloroethane-d4	*88.7*			*70.0-130*		*01/14/2023 15:56*	WG1988743

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	93.5		1.11	5.00	50	01/18/2023 11:44	WG1989116
C28-C36 Motor Oil Range	0.871		0.0118	0.100	1	01/17/2023 15:30	WG1989116
(S) o-Terphenyl	*0.000*	J7		*52.0-156*		*01/18/2023 11:44*	WG1989116
(S) o-Terphenyl	*63.7*			*52.0-156*		*01/17/2023 15:30*	WG1989116

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	16500	Q	1000	1	04/19/2023 09:52	WG2044212

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	6.98		2.60	1	01/14/2023 23:50	WG1988919

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	469		8.45	20.0	1	01/20/2023 09:34	WG1990887
Alkalinity,Bicarbonate	469		8.45	20.0	1	01/20/2023 09:34	WG1990887
Alkalinity,Carbonate	U		8.45	20.0	1	01/20/2023 09:34	WG1990887

Sample Narrative:

L1575939-02 WG1990887: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	U		0.0350	0.100	1	01/16/2023 14:04	WG1989493

Wet Chemistry by Method 9040C

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	6.45	T8	1	01/14/2023 18:47	WG1988757

Sample Narrative:

L1575939-02 WG1988757: 6.45 at 18.2C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	33300		10.0	1	01/18/2023 11:00	WG1988580

Sample Narrative:

L1575939-02 WG1988580: at 25C

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bromide	82.1		3.53	10.0	10	01/13/2023 21:32	WG1988557
Chloride	12600		37.9	100	100	01/13/2023 21:44	WG1988557
Fluoride	U		0.640	1.50	10	01/13/2023 21:32	WG1988557
Nitrate as (N)	U		0.480	1.00	10	01/13/2023 21:32	WG1988557
Nitrite as (N)	U		0.420	1.00	10	01/13/2023 21:32	WG1988557
Sulfate	U		5.94	50.0	10	01/13/2023 21:32	WG1988557

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Barium	118		0.00736	0.0500	10	01/17/2023 22:20	WG1989340
Boron	4.09		0.200	2.00	10	01/17/2023 22:20	WG1989340
Calcium	208		0.793	10.0	10	01/17/2023 22:20	WG1989340
Iron	16.1		0.180	1.00	10	01/17/2023 22:20	WG1989340
Magnesium	23.7		0.853	10.0	10	01/17/2023 22:20	WG1989340
Manganese	0.246		0.00934	0.100	10	01/17/2023 22:20	WG1989340
Potassium	74.9		2.61	20.0	10	01/17/2023 22:20	WG1989340
Selenium	U		0.0735	0.100	10	01/17/2023 22:20	WG1989340
Sodium	7340		5.04	30.0	10	01/17/2023 22:20	WG1989340
Strontium	45.2		0.00640	0.100	10	01/17/2023 22:20	WG1989340

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	94.9		1.57	5.00	50	01/18/2023 23:28	WG1990657
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*78.0-120*		*01/18/2023 23:28*	WG1990657

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	7.42		0.0941	1.00	1000	01/14/2023 16:18	WG1988743
Toluene	13.2		0.278	1.00	1000	01/14/2023 16:18	WG1988743
Ethylbenzene	0.741	J	0.137	1.00	1000	01/14/2023 16:18	WG1988743
Xylenes, Total	12.8		0.174	3.00	1000	01/14/2023 16:18	WG1988743
Naphthalene	U		1.00	5.00	1000	01/14/2023 16:18	WG1988743
(S) Toluene-d8	*112*			*80.0-120*		*01/14/2023 16:18*	WG1988743
(S) 4-Bromofluorobenzene	*93.1*			*77.0-126*		*01/14/2023 16:18*	WG1988743
(S) 1,2-Dichloroethane-d4	*89.2*			*70.0-130*		*01/14/2023 16:18*	WG1988743

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	139		1.11	5.00	50	01/18/2023 12:05	WG1989116
C28-C36 Motor Oil Range	0.967		0.0118	0.100	1	01/17/2023 15:53	WG1989116
(S) o-Terphenyl	*0.000*	J7		*52.0-156*		*01/18/2023 12:05*	WG1989116
(S) o-Terphenyl	*93.2*			*52.0-156*		*01/17/2023 15:53*	WG1989116

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	15700	Q	1000	1	04/19/2023 09:52	WG2044212

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	37.3		6.25	1	01/14/2023 23:50	WG1988919

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	877		8.45	20.0	1	01/20/2023 09:39	WG1990887
Alkalinity,Bicarbonate	877		8.45	20.0	1	01/20/2023 09:39	WG1990887
Alkalinity,Carbonate	U		8.45	20.0	1	01/20/2023 09:39	WG1990887

Sample Narrative:
L1575939-03 WG1990887: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	0.121		0.0350	0.100	1	01/16/2023 14:05	WG1989493

Wet Chemistry by Method 9040C

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	6.87	T8	1	01/14/2023 18:47	WG1988757

Sample Narrative:
L1575939-03 WG1988757: 6.87 at 18.2C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	29100		10.0	1	01/18/2023 11:00	WG1988580

Sample Narrative:
L1575939-03 WG1988580: at 25C

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bromide	62.0	B	3.53	10.0	10	01/13/2023 21:57	WG1988557
Chloride	10800		37.9	100	100	01/13/2023 22:35	WG1988557
Fluoride	0.704	J	0.640	1.50	10	01/13/2023 21:57	WG1988557
Nitrate as (N)	U		0.480	1.00	10	01/13/2023 21:57	WG1988557
Nitrite as (N)	U		0.420	1.00	10	01/13/2023 21:57	WG1988557
Sulfate	10.8	J	5.94	50.0	10	01/13/2023 21:57	WG1988557

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Barium	65.8		0.00736	0.0500	10	01/17/2023 22:23	WG1989340
Boron	12.8		0.200	2.00	10	01/17/2023 22:23	WG1989340
Calcium	126		0.793	10.0	10	01/17/2023 22:23	WG1989340
Iron	10.7		0.180	1.00	10	01/17/2023 22:23	WG1989340
Magnesium	15.6		0.853	10.0	10	01/17/2023 22:23	WG1989340
Manganese	0.153		0.00934	0.100	10	01/17/2023 22:23	WG1989340
Potassium	45.4		2.61	20.0	10	01/17/2023 22:23	WG1989340
Selenium	U		0.0735	0.100	10	01/17/2023 22:23	WG1989340
Sodium	6500		5.04	30.0	10	01/17/2023 22:23	WG1989340
Strontium	33.1		0.00640	0.100	10	01/17/2023 22:23	WG1989340

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	175		7.85	25.0	250	01/18/2023 12:00	WG1990170
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*01/18/2023 12:00*	WG1990170

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	10.3		0.0941	1.00	1000	01/14/2023 16:40	WG1988743
Toluene	22.4		0.278	1.00	1000	01/14/2023 16:40	WG1988743
Ethylbenzene	1.23		0.137	1.00	1000	01/14/2023 16:40	WG1988743
Xylenes, Total	18.5		0.174	3.00	1000	01/14/2023 16:40	WG1988743
Naphthalene	U		1.00	5.00	1000	01/14/2023 16:40	WG1988743
(S) Toluene-d8	*107*			*80.0-120*		*01/14/2023 16:40*	WG1988743
(S) 4-Bromofluorobenzene	*94.0*			*77.0-126*		*01/14/2023 16:40*	WG1988743
(S) 1,2-Dichloroethane-d4	*89.2*			*70.0-130*		*01/14/2023 16:40*	WG1988743

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	68.9		0.444	2.00	20	01/18/2023 12:45	WG1989116
C28-C36 Motor Oil Range	8.66		0.236	2.00	20	01/18/2023 12:45	WG1989116
(S) o-Terphenyl	*0.000*	J7		*52.0-156*		*01/18/2023 12:45*	WG1989116

Method Blank (MB)

(MB) R3915581-1 04/19/23 09:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U	J	10.0	10.0

L1575939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1575939-01 04/19/23 09:52 • (DUP) R3915581-3 04/19/23 09:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	13800	15800	1	13.5	J3	5

Laboratory Control Sample (LCS)

(LCS) R3915581-2 04/19/23 09:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7830	89.0	77.3-123	

Method Blank (MB)

(MB) R3881157-1 01/14/23 21:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Suspended Solids	U		2.50	2.50

L1575918-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1575918-02 01/14/23 21:17 • (DUP) R3881157-3 01/14/23 21:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	11.6	12.0	1	3.39		5

L1576069-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1576069-01 01/14/23 21:17 • (DUP) R3881157-4 01/14/23 21:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	42.0	49.4	1	16.3	J3	5

Laboratory Control Sample (LCS)

(LCS) R3881157-2 01/14/23 21:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Suspended Solids	773	904	117	85.7-114	J4

Method Blank (MB)

(MB) R3881158-1 01/14/23 23:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Suspended Solids	U		2.50	2.50

L1576125-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1576125-01 01/14/23 23:50 • (DUP) R3881158-3 01/14/23 23:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	54.4	61.6	1	12.4	J3	5

L1576126-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1576126-01 01/14/23 23:50 • (DUP) R3881158-4 01/14/23 23:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	39.6	42.4	1	6.83	P1	5

Laboratory Control Sample (LCS)

(LCS) R3881158-2 01/14/23 23:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Suspended Solids	773	848	110	85.7-114	

Method Blank (MB)

(MB) R3882903-2 01/20/23 08:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0
Alkalinity,Bicarbonate	U		8.45	20.0
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1575714-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1575714-02 01/20/23 08:41 • (DUP) R3882903-3 01/20/23 08:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	333	328	1	1.49		20
Alkalinity,Bicarbonate	333	328	1	1.49		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1576160-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1576160-02 01/20/23 10:38 • (DUP) R3882903-4 01/20/23 10:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	209	209	1	0.176		20
Alkalinity,Bicarbonate	209	209	1	0.176		20
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3882903-1 01/20/23 08:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	103	103	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3881357-1 01/16/23 13:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phosphorus,Total	U		0.0350	0.100

L1575200-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1575200-01 01/16/23 13:58 • (DUP) R3881357-3 01/16/23 13:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus,Total	0.231	0.254	1	9.48		20

Laboratory Control Sample (LCS)

(LCS) R3881357-2 01/16/23 13:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phosphorus,Total	2.47	2.36	95.5	83.2-116	

L1575200-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575200-01 01/16/23 13:58 • (MS) R3881357-4 01/16/23 14:00 • (MSD) R3881357-5 01/16/23 14:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phosphorus,Total	2.50	0.231	2.63	2.57	96.0	93.6	1	90.0-110			2.31	20

L1574617-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1574617-01 01/13/23 22:27 • (DUP) R3880959-2 01/13/23 22:27

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	9.04	9.05	1	0.111		1

Sample Narrative:

OS: 9.04 at 21.1C

DUP: 9.05 at 19C

L1575989-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1575989-01 01/13/23 22:27 • (DUP) R3880959-3 01/13/23 22:27

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	7.29	7.32	1	0.411		1

Sample Narrative:

OS: 7.29 at 19.4C

DUP: 7.32 at 18.8C

Laboratory Control Sample (LCS)

(LCS) R3880959-1 01/13/23 22:27

Analyte	Spike Amount su	LCS Result su	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	10.0	9.90	99.0	99.0-101	

Sample Narrative:

LCS: 9.9 at 20C

L1575591-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1575591-01 01/14/23 18:47 • (DUP) R3881070-2 01/14/23 18:47

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	6.61	6.57	1	0.607		1

Sample Narrative:
OS: 6.61 at 19.6C
DUP: 6.57 at 19.5C

L1576230-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1576230-11 01/14/23 18:47 • (DUP) R3881070-3 01/14/23 18:47

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	7.25	7.25	1	0.000		1

Sample Narrative:
OS: 7.25 at 18.5C
DUP: 7.25 at 18.2C

Laboratory Control Sample (LCS)

(LCS) R3881070-1 01/14/23 18:47

Analyte	Spike Amount su	LCS Result su	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	10.0	9.90	99.0	99.0-101	

Sample Narrative:
LCS: 9.9 at 20C

Method Blank (MB)

(MB) R3882095-1 01/18/23 11:00

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

L1574311-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1574311-03 01/18/23 11:00 • (DUP) R3882095-3 01/18/23 11:00

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

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

L1575939-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1575939-02 01/18/23 11:00 • (DUP) R3882095-4 01/18/23 11:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	33300	33300	1	0.000		20

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

Laboratory Control Sample (LCS)

(LCS) R3882095-2 01/18/23 11:00

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

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3881088-1 01/13/23 18:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	0.740	J	0.353	1.00
Chloride	0.386	J	0.379	1.00
Fluoride	U		0.0640	0.150
Nitrate	0.0514	J	0.0480	0.100
Nitrite	0.0650	J	0.0420	0.100
Sulfate	U		0.594	5.00

L1575932-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1575932-19 01/13/23 23:14 • (DUP) R3881088-3 01/13/23 23:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	40.5	40.1	1	1.18		15
Sulfate	12.3	12.2	1	1.18		15

L1575932-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1575932-24 01/14/23 01:21 • (DUP) R3881088-6 01/14/23 01:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17.7	17.1	1	3.14		15
Sulfate	8.74	8.46	1	3.32		15

Laboratory Control Sample (LCS)

(LCS) R3881088-2 01/13/23 18:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromide	40.0	40.9	102	80.0-120	
Chloride	40.0	41.6	104	80.0-120	
Fluoride	8.00	8.52	107	80.0-120	
Nitrate	8.00	8.08	101	80.0-120	
Nitrite	8.00	8.58	107	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1575932-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575932-19 01/13/23 23:14 • (MS) R3881088-4 01/13/23 23:39 • (MSD) R3881088-5 01/13/23 23:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	40.5	91.3	90.0	102	98.9	1	80.0-120			1.46	15
Sulfate	50.0	12.3	62.9	61.9	101	99.1	1	80.0-120			1.55	15

L1575932-24 Original Sample (OS) • Matrix Spike (MS)

(OS) L1575932-24 01/14/23 01:21 • (MS) R3881088-7 01/14/23 01:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	17.7	68.5	102	1	80.0-120	
Sulfate	50.0	8.74	58.9	100	1	80.0-120	

Method Blank (MB)

(MB) R3881850-1 01/17/23 15:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Barium	U		0.000736	0.00500
Boron	U		0.0200	0.200
Calcium	U		0.0793	1.00
Iron	U		0.0180	0.100
Magnesium	U		0.0853	1.00
Manganese	U		0.000934	0.0100
Potassium	U		0.261	2.00
Selenium	U		0.00735	0.0100
Sodium	U		0.504	3.00
Strontium	U		0.000640	0.0100

Laboratory Control Sample (LCS)

(LCS) R3881850-2 01/17/23 15:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1.00	0.981	98.1	80.0-120	
Boron	1.00	0.949	94.9	80.0-120	
Calcium	10.0	9.44	94.4	80.0-120	
Iron	10.0	9.56	95.6	80.0-120	
Magnesium	10.0	9.05	90.5	80.0-120	
Manganese	1.00	0.882	88.2	80.0-120	
Potassium	10.0	9.49	94.9	80.0-120	
Selenium	1.00	0.925	92.5	80.0-120	
Sodium	10.0	9.66	96.6	80.0-120	
Strontium	1.00	0.955	95.5	80.0-120	

L1575932-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575932-10 01/17/23 15:06 • (MS) R3881850-4 01/17/23 15:12 • (MSD) R3881850-5 01/17/23 15:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1.00	0.0874	1.05	1.05	96.2	96.4	1	75.0-125			0.237	20
Boron	1.00		0.957	0.965	95.7	96.5	1	75.0-125			0.825	20
Calcium	10.0	171	176	176	50.8	50.8	1	75.0-125	V	V	0.00353	20
Iron	10.0	7.44	16.7	16.7	92.9	92.6	1	75.0-125			0.196	20
Magnesium	10.0	3.60	12.4	12.4	88.0	87.9	1	75.0-125			0.0948	20
Manganese	1.00	7.72	8.38	8.35	65.8	63.3	1	75.0-125	V	V	0.304	20
Potassium	10.0	1.19	10.9	11.0	97.4	98.5	1	75.0-125			0.994	20

L1575932-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575932-10 01/17/23 15:06 • (MS) R3881850-4 01/17/23 15:12 • (MSD) R3881850-5 01/17/23 15:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	1.00	U	0.951	0.959	95.1	95.9	1	75.0-125			0.768	20
Sodium	10.0	9.82	19.6	19.6	98.1	98.1	1	75.0-125			0.00815	20
Strontium	1.00		1.06	1.06	94.6	95.2	1	75.0-125			0.518	20

Method Blank (MB)

(MB) R3882501-2 01/18/23 10:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3882501-1 01/18/23 10:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.78	105	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3882600-2 01/18/23 22:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0408	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3882600-1 01/18/23 21:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.86	107	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

Method Blank (MB)

(MB) R3881749-2 01/14/23 10:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
Naphthalene	U		0.00100	0.00500
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.0*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3881749-1 01/14/23 09:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00493	98.6	70.0-123	
Toluene	0.00500	0.00497	99.4	79.0-120	
Ethylbenzene	0.00500	0.00525	105	79.0-123	
Xylenes, Total	0.0150	0.0155	103	79.0-123	
Naphthalene	0.00500	0.00453	90.6	54.0-135	
(S) Toluene-d8			*111*	*80.0-120*	
(S) 4-Bromofluorobenzene			*91.6*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*91.3*	*70.0-130*	

Method Blank (MB)

(MB) R3881767-1 01/17/23 13:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
C10-C28 Diesel Range	U		0.0222	0.100
C28-C36 Motor Oil Range	0.0279	J	0.0118	0.100
(S) o-Terphenyl	*95.0*			*52.0-156*

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

(LCS) R3881767-2 01/17/23 13:58 • (LCSD) R3881767-3 01/17/23 14:21

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 %
C10-C28 Diesel Range	1.50	1.51	1.55	101	103	50.0-150			2.61	20
(S) o-Terphenyl				*118*	*119*	*52.0-156*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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.

Company Name/Address:
Caerus Oil and Gas

143 Diamond Avenue
Parachute, CO 81635

Billing Information:
Accounts Payable
1001 17th St., Ste. 1600
Denver, CO 80202

Pres Chk

Report to: Brett Middleton

Email To: JJanicek@caerusoilandgas.com;brollins@caerus

Project Description: 909J

City/State Collected: Parachute, CO

Please Circle: PT MT CT ET

Phone: 970-285-2653

Client Project #

Lab Project #

Collected by (print): Will Harmon

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: ASAP

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK,ALKBI,ALKCA 250mlHDPE-NoPres	Br,Cl,F,SO4 250mlHDPE-NoPres	DRONMLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	PT 250mlHDPE-H2SO4	RA-226/228 1L-HDPE-Add-HNO3	SPCON 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	TSS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
8D-TANK-WMFK	Grab	GW	Surface	1/12/23	1130	17	X	X	X	X	X	X	X	X	X	X		-01
17L-18748-WMFK	Grab	GW	Surface	1/12/23	1220	17	X	X	X	X	X	X	X	X	X	X		-02
8A-18551-WMFK	Grab	GW	Surface	1/12/23	0910	17	X	X	X	X	X	X	X	X	X	X		-03
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		
		GW				17	X	X	X	X	X	X	X	X	X	X		

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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

SDG # L1575939
Table # B049
Ac
Template: T215555
Prelogin: P963757
PM: 824 - Chris Ward
PB:
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Metals - Ba,B,Ca,Fe,K,Mg,Mn,Na,Se,Sr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date: 1/12/23	Time: 1700	Received by: (Signature)	Temp: °C Bottles Received: 51
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1-13-23 Time: 9:15

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Caerus Oil and Gas

143 Diamond Avenue
Parachute, CO 81635

Billing Information:
Accounts Payable
1001 17th St., Ste. 1600
Denver, CO 80202

Pres Chk

Report to:
Brett Middleton

Email To:
JJanicek@caerusoilandgas.com;brollins@caerus

Project Description: 909J

City/State Collected: Parachute, CO

Please Circle: PT MT CT ET

Phone: **970-285-2653**

Client Project #

Lab Project #

Collected by (print): WILL HARMON

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: ASAP

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260BTEXN 40mlAmb-HCl	V8260BTEXN 40mlAmb-HCl-Blk	pH 125mlHDPE-NoPres							Remarks	Sample # (lab only)
8D - TANK - WMFK	Grab	GW	Surface	1/12/23	1130	17	X	X	X								-01
17L - 18748 - WMFK	Grab	GW	Surface	1/12/23	1220	17	X		X								-02
8A - 18551 - WMFK	Grab	GW	Surface	1/12/23	0910	17	X	X	X								-03
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								
		GW				17	X		X								

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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

SDG # L575939

Table #

Acctnum: **CAERUSPCO**
Template: **T215555**
Prelogin: **P963757**
PM: **824 - Chris Ward**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:Metals - Ba,B,Ca,Fe,K,Mg,Mn,Na,Se,Sr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	1/12/23	1615		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	1/12/23	1700		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1-13-23 Time: 9:15

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

4575939

Tracking Numbers	Temperature
6126 6537 5099	GNA2 2.3+0=2.3
6126 6537 5158	GB/A2 1.1+0=1.1