

Laramie Energy - Grand Junction, CO

Sample Delivery Group: L1653700
Samples Received: 09/07/2023
Project Number: 605-2 HISTROIC
Description: 605-2 Historic
Site: 605-2
Report To: Matt Kasten
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Entire Report Reviewed By:



Chris Ward
Project Manager

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SAMPLE SUMMARY

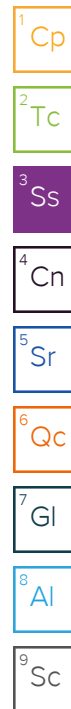
605-2 SEP BOT L1653700-01 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:10

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2130091	1	09/13/23 17:36	09/13/23 17:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2129790	1	09/11/23 14:31	09/12/23 07:06	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2130715	1	09/12/23 13:07	09/13/23 14:49	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2129638	1	09/12/23 09:00	09/12/23 12:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2132174	1	09/14/23 08:44	09/14/23 15:46	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2130137	1	09/12/23 10:45	09/13/23 15:44	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2129607	5	09/10/23 23:29	09/12/23 12:39	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2131606	1	09/13/23 00:15	09/13/23 19:14	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2131347	1	09/13/23 00:15	09/13/23 16:10	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2131192	1	09/15/23 08:23	09/15/23 13:57	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2131189	1	09/15/23 06:36	09/15/23 18:41	DLH	Mt. Juliet, TN



605-2 SEP WWALL L1653700-02 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:15

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2130091	1	09/13/23 17:39	09/13/23 17:39	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2129790	1	09/11/23 14:31	09/12/23 07:26	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2130715	1	09/12/23 13:07	09/13/23 14:49	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2129638	1	09/12/23 09:00	09/12/23 12:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2132174	1	09/14/23 08:44	09/14/23 15:49	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2130137	1	09/12/23 10:45	09/13/23 15:47	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2129607	5	09/10/23 23:29	09/12/23 12:19	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2131606	1	09/13/23 00:15	09/13/23 19:39	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2131420	1	09/13/23 00:15	09/13/23 13:00	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2131192	1	09/15/23 08:23	09/15/23 15:25	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2131189	1	09/15/23 06:36	09/15/23 18:58	DLH	Mt. Juliet, TN

605-2 SEP SWALL L1653700-03 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:20

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2130091	1	09/13/23 17:42	09/13/23 17:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2129790	1	09/11/23 14:31	09/12/23 07:32	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2130710	1	09/12/23 13:11	09/13/23 09:43	JGM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2129638	1	09/12/23 09:00	09/12/23 12:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2132174	1	09/14/23 08:44	09/14/23 15:32	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2130137	1	09/12/23 10:45	09/13/23 15:49	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2129607	5	09/10/23 23:29	09/12/23 12:42	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2131606	1	09/13/23 00:15	09/13/23 20:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2131420	1	09/13/23 00:15	09/13/23 13:19	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2131192	1	09/15/23 08:23	09/15/23 14:48	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2131190	1	09/15/23 06:07	09/15/23 21:05	JRM	Mt. Juliet, TN

605-2 SEP N WALL L1653700-04 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:25

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2130091	1	09/13/23 17:45	09/13/23 17:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2129790	1	09/11/23 14:31	09/12/23 07:37	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2131713	1	09/14/23 08:59	09/14/23 12:30	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2129638	1	09/12/23 09:00	09/12/23 12:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2132174	1	09/14/23 08:44	09/14/23 15:52	CCE	Mt. Juliet, TN

ACCOUNT:

Laramie Energy - Grand Junction, CO

PROJECT:

605-2 HISTROIC

SDG:

L1653700

DATE/TIME:

09/19/23 12:56

PAGE:

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SAMPLE SUMMARY

605-2 SEP NWALL L1653700-04 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:25

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2130137	1	09/12/23 10:45	09/13/23 15:52	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2129607	5	09/10/23 23:29	09/12/23 12:55	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2131872	1	09/13/23 00:15	09/13/23 22:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2131420	1	09/13/23 00:15	09/13/23 13:37	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2131192	1	09/15/23 08:23	09/15/23 15:25	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2131190	1	09/15/23 06:07	09/15/23 21:22	JRM	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

605-2 SEP EWALL L1653700-05 Solid

Collected by
Matt K.

Collected date/time
09/06/23 12:30

Received date/time
09/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2130091	1	09/13/23 17:47	09/13/23 17:47	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2129790	1	09/11/23 14:31	09/12/23 07:42	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2130715	1	09/12/23 13:07	09/13/23 14:49	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2129638	1	09/12/23 09:00	09/12/23 12:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2132174	1	09/14/23 08:44	09/14/23 16:00	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2130137	1	09/12/23 10:45	09/13/23 15:55	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2129607	5	09/10/23 23:29	09/12/23 12:59	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2131872	1	09/13/23 00:15	09/13/23 22:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2131420	1	09/13/23 00:15	09/13/23 13:56	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2131192	1	09/15/23 08:23	09/15/23 14:23	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2131190	1	09/15/23 06:07	09/15/23 21:40	JRM	Mt. Juliet, TN

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

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



Chris Ward
Project Manager



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.408		1	09/13/2023 17:36	WG2130091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	09/12/2023 07:06	WG2129790

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.56	T8	1	09/13/2023 14:49	WG2130715

Sample Narrative:

L1653700-01 WG2130715: 7.56 at 19.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	266		10.0	1	09/12/2023 12:00	WG2129638

Sample Narrative:

L1653700-01 WG2129638: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	278		0.500	1	09/14/2023 15:46	WG2132174
Cadmium	0.519		0.500	1	09/14/2023 15:46	WG2132174
Copper	16.2		2.00	1	09/14/2023 15:46	WG2132174
Lead	12.0		0.500	1	09/14/2023 15:46	WG2132174
Nickel	22.5		2.00	1	09/14/2023 15:46	WG2132174
Selenium	ND		2.00	1	09/14/2023 15:46	WG2132174
Silver	ND		1.00	1	09/14/2023 15:46	WG2132174
Zinc	67.9		5.00	1	09/14/2023 15:46	WG2132174

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

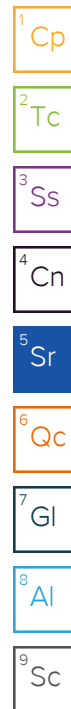
Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	09/13/2023 15:44	WG2130137

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.90		1.00	5	09/12/2023 12:39	WG2129607

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	09/13/2023 19:14	WG2131606
(S) a,a,a-Trifluorotoluene(FID)	91.5		77.0-120		09/13/2023 19:14	WG2131606



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/13/2023 16:10	WG2131347
Toluene	ND		0.00500	1	09/13/2023 16:10	WG2131347
Ethylbenzene	ND		0.00250	1	09/13/2023 16:10	WG2131347
Xylenes, Total	ND		0.00650	1	09/13/2023 16:10	WG2131347
1,2,4-Trimethylbenzene	ND		0.00500	1	09/13/2023 16:10	WG2131347
1,3,5-Trimethylbenzene	ND		0.00500	1	09/13/2023 16:10	WG2131347
(S) Toluene-d8	104		75.0-131		09/13/2023 16:10	WG2131347
(S) 4-Bromofluorobenzene	103		67.0-138		09/13/2023 16:10	WG2131347
(S) 1,2-Dichloroethane-d4	97.7		70.0-130		09/13/2023 16:10	WG2131347

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.79		4.00	1	09/15/2023 13:57	WG2131192
C28-C36 Motor Oil Range	10.9		4.00	1	09/15/2023 13:57	WG2131192
(S) o-Terphenyl	39.1		18.0-148		09/15/2023 13:57	WG2131192

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Acenaphthene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Acenaphthylene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Benzo(a)anthracene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Benzo(a)pyrene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Benzo(b)fluoranthene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Benzo(g,h,i)perylene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Benzo(k)fluoranthene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Chrysene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Dibenz(a,h)anthracene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Fluoranthene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Fluorene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Naphthalene	ND		0.0200	1	09/15/2023 18:41	WG2131189
Phenanthrene	ND		0.00600	1	09/15/2023 18:41	WG2131189
Pyrene	ND		0.00600	1	09/15/2023 18:41	WG2131189
1-Methylnaphthalene	ND		0.0200	1	09/15/2023 18:41	WG2131189
2-Methylnaphthalene	ND		0.0200	1	09/15/2023 18:41	WG2131189
2-Chloronaphthalene	ND		0.0200	1	09/15/2023 18:41	WG2131189
(S) p-Terphenyl-d14	60.5		23.0-120		09/15/2023 18:41	WG2131189
(S) Nitrobenzene-d5	76.4		14.0-149		09/15/2023 18:41	WG2131189
(S) 2-Fluorobiphenyl	68.7		34.0-125		09/15/2023 18:41	WG2131189

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.607		1	09/13/2023 17:39	WG2130091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	09/12/2023 07:26	WG2129790

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.70	T8	1	09/13/2023 14:49	WG2130715

Sample Narrative:

L1653700-02 WG2130715: 7.7 at 19.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	261		10.0	1	09/12/2023 12:00	WG2129638

Sample Narrative:

L1653700-02 WG2129638: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	321		0.500	1	09/14/2023 15:49	WG2132174
Cadmium	0.511		0.500	1	09/14/2023 15:49	WG2132174
Copper	13.3		2.00	1	09/14/2023 15:49	WG2132174
Lead	11.4		0.500	1	09/14/2023 15:49	WG2132174
Nickel	26.4		2.00	1	09/14/2023 15:49	WG2132174
Selenium	ND		2.00	1	09/14/2023 15:49	WG2132174
Silver	ND		1.00	1	09/14/2023 15:49	WG2132174
Zinc	90.5		5.00	1	09/14/2023 15:49	WG2132174

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

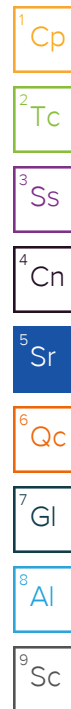
Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	09/13/2023 15:47	WG2130137

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.03		1.00	5	09/12/2023 12:19	WG2129607

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	09/13/2023 19:39	WG2131606
(S) a,a,a-Trifluorotoluene(FID)	90.7		77.0-120		09/13/2023 19:39	WG2131606



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/13/2023 13:00	WG2131420
Toluene	ND		0.00500	1	09/13/2023 13:00	WG2131420
Ethylbenzene	ND		0.00250	1	09/13/2023 13:00	WG2131420
Xylenes, Total	ND		0.00650	1	09/13/2023 13:00	WG2131420
1,2,4-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:00	WG2131420
1,3,5-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:00	WG2131420
(S) Toluene-d8	103		75.0-131		09/13/2023 13:00	WG2131420
(S) 4-Bromofluorobenzene	105		67.0-138		09/13/2023 13:00	WG2131420
(S) 1,2-Dichloroethane-d4	92.9		70.0-130		09/13/2023 13:00	WG2131420

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	35.5		4.00	1	09/15/2023 15:25	WG2131192
C28-C36 Motor Oil Range	70.1		4.00	1	09/15/2023 15:25	WG2131192
(S) o-Terphenyl	37.2		18.0-148		09/15/2023 15:25	WG2131192

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Acenaphthene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Acenaphthylene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Benzo(a)anthracene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Benzo(a)pyrene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Benzo(b)fluoranthene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Benzo(g,h,i)perylene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Benzo(k)fluoranthene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Chrysene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Dibenz(a,h)anthracene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Fluoranthene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Fluorene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Naphthalene	ND		0.0200	1	09/15/2023 18:58	WG2131189
Phenanthrene	ND		0.00600	1	09/15/2023 18:58	WG2131189
Pyrene	ND		0.00600	1	09/15/2023 18:58	WG2131189
1-Methylnaphthalene	ND		0.0200	1	09/15/2023 18:58	WG2131189
2-Methylnaphthalene	ND		0.0200	1	09/15/2023 18:58	WG2131189
2-Chloronaphthalene	ND		0.0200	1	09/15/2023 18:58	WG2131189
(S) p-Terphenyl-d14	70.3		23.0-120		09/15/2023 18:58	WG2131189
(S) Nitrobenzene-d5	88.3		14.0-149		09/15/2023 18:58	WG2131189
(S) 2-Fluorobiphenyl	77.1		34.0-125		09/15/2023 18:58	WG2131189

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.491		1	09/13/2023 17:42	WG2130091

1
Cp

2
Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	09/12/2023 07:32	WG2129790

3
Ss

4
Cn

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.22	T8	1	09/13/2023 09:43	WG2130710

5
Sr

6
Qc

Sample Narrative:

L1653700-03 WG2130710: 7.22 at 21.3C

7
Gl

8
Al

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	270		10.0	1	09/12/2023 12:00	WG2129638

9
Sc

Sample Narrative:

L1653700-03 WG2129638: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	282		0.500	1	09/14/2023 15:32	WG2132174
Cadmium	ND		0.500	1	09/14/2023 15:32	WG2132174
Copper	14.3		2.00	1	09/14/2023 15:32	WG2132174
Lead	10.7		0.500	1	09/14/2023 15:32	WG2132174
Nickel	21.5		2.00	1	09/14/2023 15:32	WG2132174
Selenium	ND		2.00	1	09/14/2023 15:32	WG2132174
Silver	ND		1.00	1	09/14/2023 15:32	WG2132174
Zinc	62.3		5.00	1	09/14/2023 15:32	WG2132174

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	09/13/2023 15:49	WG2130137

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.11		1.00	5	09/12/2023 12:42	WG2129607

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	09/13/2023 20:03	WG2131606
(S) a,a,a-Trifluorotoluene(FID)	92.3		77.0-120		09/13/2023 20:03	WG2131606

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/13/2023 13:19	WG2131420
Toluene	ND		0.00500	1	09/13/2023 13:19	WG2131420
Ethylbenzene	ND		0.00250	1	09/13/2023 13:19	WG2131420
Xylenes, Total	ND		0.00650	1	09/13/2023 13:19	WG2131420
1,2,4-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:19	WG2131420
1,3,5-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:19	WG2131420
(S) Toluene-d8	104		75.0-131		09/13/2023 13:19	WG2131420
(S) 4-Bromofluorobenzene	101		67.0-138		09/13/2023 13:19	WG2131420
(S) 1,2-Dichloroethane-d4	90.4		70.0-130		09/13/2023 13:19	WG2131420

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	23.1		4.00	1	09/15/2023 14:48	WG2131192
C28-C36 Motor Oil Range	23.6		4.00	1	09/15/2023 14:48	WG2131192
(S) o-Terphenyl	42.6		18.0-148		09/15/2023 14:48	WG2131192

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Acenaphthene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Acenaphthylene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Benzo(a)anthracene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Benzo(a)pyrene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Benzo(b)fluoranthene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Benzo(g,h,i)perylene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Benzo(k)fluoranthene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Chrysene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Dibenz(a,h)anthracene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Fluoranthene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Fluorene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Naphthalene	ND		0.0200	1	09/15/2023 21:05	WG2131190
Phenanthrene	ND		0.00600	1	09/15/2023 21:05	WG2131190
Pyrene	ND		0.00600	1	09/15/2023 21:05	WG2131190
1-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:05	WG2131190
2-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:05	WG2131190
2-Chloronaphthalene	ND		0.0200	1	09/15/2023 21:05	WG2131190
(S) p-Terphenyl-d14	58.6		23.0-120		09/15/2023 21:05	WG2131190
(S) Nitrobenzene-d5	66.9		14.0-149		09/15/2023 21:05	WG2131190
(S) 2-Fluorobiphenyl	56.6		34.0-125		09/15/2023 21:05	WG2131190

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.329		1	09/13/2023 17:45	WG2130091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	09/12/2023 07:37	WG2129790

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.36	T8	1	09/14/2023 12:30	WG2131713

Sample Narrative:

L1653700-04 WG2131713: 7.36 at 21.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	149		10.0	1	09/12/2023 12:00	WG2129638

Sample Narrative:

L1653700-04 WG2129638: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	321		0.500	1	09/14/2023 15:52	WG2132174
Cadmium	ND		0.500	1	09/14/2023 15:52	WG2132174
Copper	18.5		2.00	1	09/14/2023 15:52	WG2132174
Lead	25.1		0.500	1	09/14/2023 15:52	WG2132174
Nickel	22.4		2.00	1	09/14/2023 15:52	WG2132174
Selenium	ND		2.00	1	09/14/2023 15:52	WG2132174
Silver	ND		1.00	1	09/14/2023 15:52	WG2132174
Zinc	94.9		5.00	1	09/14/2023 15:52	WG2132174

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	09/13/2023 15:52	WG2130137

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.93		1.00	5	09/12/2023 12:55	WG2129607

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	09/13/2023 22:36	WG2131872
(S) a,a,a-Trifluorotoluene(FID)	88.4		77.0-120		09/13/2023 22:36	WG2131872

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/13/2023 13:37	WG2131420
Toluene	ND		0.00500	1	09/13/2023 13:37	WG2131420
Ethylbenzene	ND		0.00250	1	09/13/2023 13:37	WG2131420
Xylenes, Total	ND		0.00650	1	09/13/2023 13:37	WG2131420
1,2,4-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:37	WG2131420
1,3,5-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:37	WG2131420
(S) Toluene-d8	104		75.0-131		09/13/2023 13:37	WG2131420
(S) 4-Bromofluorobenzene	104		67.0-138		09/13/2023 13:37	WG2131420
(S) 1,2-Dichloroethane-d4	90.5		70.0-130		09/13/2023 13:37	WG2131420

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	53.5		4.00	1	09/15/2023 15:25	WG2131192
C28-C36 Motor Oil Range	93.4		4.00	1	09/15/2023 15:25	WG2131192
(S) o-Terphenyl	28.7		18.0-148		09/15/2023 15:25	WG2131192

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Acenaphthene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Acenaphthylene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Benzo(a)anthracene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Benzo(a)pyrene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Benzo(b)fluoranthene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Benzo(g,h,i)perylene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Benzo(k)fluoranthene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Chrysene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Dibenz(a,h)anthracene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Fluoranthene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Fluorene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Naphthalene	ND		0.0200	1	09/15/2023 21:22	WG2131190
Phenanthrene	ND		0.00600	1	09/15/2023 21:22	WG2131190
Pyrene	ND		0.00600	1	09/15/2023 21:22	WG2131190
1-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:22	WG2131190
2-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:22	WG2131190
2-Chloronaphthalene	ND		0.0200	1	09/15/2023 21:22	WG2131190
(S) p-Terphenyl-d14	66.3		23.0-120		09/15/2023 21:22	WG2131190
(S) Nitrobenzene-d5	74.9		14.0-149		09/15/2023 21:22	WG2131190
(S) 2-Fluorobiphenyl	66.7		34.0-125		09/15/2023 21:22	WG2131190

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.335		1	09/13/2023 17:47	WG2130091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	09/12/2023 07:42	WG2129790

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.51	T8	1	09/13/2023 14:49	WG2130715

Sample Narrative:

L1653700-05 WG2130715: 7.51 at 19.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	245		10.0	1	09/12/2023 12:00	WG2129638

Sample Narrative:

L1653700-05 WG2129638: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	299		0.500	1	09/14/2023 16:00	WG2132174
Cadmium	ND		0.500	1	09/14/2023 16:00	WG2132174
Copper	14.8		2.00	1	09/14/2023 16:00	WG2132174
Lead	12.7		0.500	1	09/14/2023 16:00	WG2132174
Nickel	23.5		2.00	1	09/14/2023 16:00	WG2132174
Selenium	ND		2.00	1	09/14/2023 16:00	WG2132174
Silver	ND		1.00	1	09/14/2023 16:00	WG2132174
Zinc	69.3		5.00	1	09/14/2023 16:00	WG2132174

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

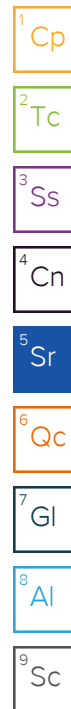
Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	09/13/2023 15:55	WG2130137

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.62		1.00	5	09/12/2023 12:59	WG2129607

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	09/13/2023 22:59	WG2131872
(S) a,a,a-Trifluorotoluene(FID)	86.5		77.0-120		09/13/2023 22:59	WG2131872



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/13/2023 13:56	WG2131420
Toluene	ND		0.00500	1	09/13/2023 13:56	WG2131420
Ethylbenzene	ND		0.00250	1	09/13/2023 13:56	WG2131420
Xylenes, Total	ND		0.00650	1	09/13/2023 13:56	WG2131420
1,2,4-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:56	WG2131420
1,3,5-Trimethylbenzene	ND		0.00500	1	09/13/2023 13:56	WG2131420
(S) Toluene-d8	102		75.0-131		09/13/2023 13:56	WG2131420
(S) 4-Bromofluorobenzene	103		67.0-138		09/13/2023 13:56	WG2131420
(S) 1,2-Dichloroethane-d4	94.4		70.0-130		09/13/2023 13:56	WG2131420

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	8.86		4.00	1	09/15/2023 14:23	WG2131192
C28-C36 Motor Oil Range	13.7		4.00	1	09/15/2023 14:23	WG2131192
(S) o-Terphenyl	39.3		18.0-148		09/15/2023 14:23	WG2131192

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Acenaphthene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Acenaphthylene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Benzo(a)anthracene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Benzo(a)pyrene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Benzo(b)fluoranthene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Benzo(g,h,i)perylene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Benzo(k)fluoranthene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Chrysene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Dibenz(a,h)anthracene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Fluoranthene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Fluorene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Naphthalene	ND		0.0200	1	09/15/2023 21:40	WG2131190
Phenanthrene	ND		0.00600	1	09/15/2023 21:40	WG2131190
Pyrene	ND		0.00600	1	09/15/2023 21:40	WG2131190
1-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:40	WG2131190
2-Methylnaphthalene	ND		0.0200	1	09/15/2023 21:40	WG2131190
2-Chloronaphthalene	ND		0.0200	1	09/15/2023 21:40	WG2131190
(S) p-Terphenyl-d14	64.4		23.0-120		09/15/2023 21:40	WG2131190
(S) Nitrobenzene-d5	67.4		14.0-149		09/15/2023 21:40	WG2131190
(S) 2-Fluorobiphenyl	61.2		34.0-125		09/15/2023 21:40	WG2131190

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3971783-1 09/12/23 04:45

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

L1653434-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1653434-01 09/12/23 06:22 • (DUP) R3971783-7 09/12/23 06:29

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

L1653700-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1653700-01 09/12/23 07:06 • (DUP) R3971783-8 09/12/23 07:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	ND	ND	1	5.65		20

Laboratory Control Sample (LCS)

(LCS) R3971783-2 09/12/23 04:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.0	100	80.0-120	

L1653430-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653430-02 09/12/23 05:03 • (MS) R3971783-4 09/12/23 05:13 • (MSD) R3971783-5 09/12/23 05:18

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	ND	19.4	19.4	96.8	96.8	1	75.0-125			0.0384	20

L1653430-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1653430-02 09/12/23 05:03 • (MS) R3971783-6 09/12/23 05:23

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	ND	596	93.0	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1653700-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1653700-03 09/13/23 09:43 • (DUP) R3972353-2 09/13/23 09:43

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.22	7.24	1	0.277		1

Sample Narrative:

OS: 7.22 at 21.3C

DUP: 7.24 at 21.2C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1654006-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1654006-03 09/13/23 09:43 • (DUP) R3972353-3 09/13/23 09:43

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	pH	su		%		%
pH	7.00	7.01	1	0.143		1

Sample Narrative:

OS: 7 at 20.8C

DUP: 7.01 at 20.7C

Laboratory Control Sample (LCS)

(LCS) R3972353-1 09/13/23 09:43

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

Sample Narrative:

LCS: 10.01 at 20.9C

L1653441-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1653441-01 09/13/23 14:49 • (DUP) R3972658-2 09/13/23 14:49

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.73	7.77	1	0.516		1

Sample Narrative:

OS: 7.73 at 20.2C

DUP: 7.77 at 20C

L1653700-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1653700-02 09/13/23 14:49 • (DUP) R3972658-3 09/13/23 14:49

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.70	7.69	1	0.130		1

Sample Narrative:

OS: 7.7 at 19.8C

DUP: 7.69 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R3972658-1 09/13/23 14:49

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

Sample Narrative:

LCS: 10 at 20.3C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1654165-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1654165-04 09/14/23 12:30 • (DUP) R3973118-2 09/14/23 12:30

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.49	8.50	1	0.118		1

Sample Narrative:

OS: 8.49 at 20.7C

DUP: 8.5 at 20.6C

Laboratory Control Sample (LCS)

(LCS) R3973118-1 09/14/23 12:30

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

Sample Narrative:

LCS: 10 at 20.2C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3972034-1 09/12/23 12:00

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

L1653441-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1653441-01 09/12/23 12:00 • (DUP) R3972034-3 09/12/23 12:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	6480	6440	1	0.619		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1653565-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1653565-04 09/12/23 12:00 • (DUP) R3972034-4 09/12/23 12:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	235	236	1	0.255		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3972034-2 09/12/23 12:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	767	105	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) R3973412-1 09/14/23 15:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Copper	U		0.400	2.00
Lead	0.303	U	0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3973412-2 09/14/23 15:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	104	104	80.0-120	
Cadmium	100	96.6	96.6	80.0-120	
Copper	100	95.4	95.4	80.0-120	
Lead	100	96.0	96.0	80.0-120	
Nickel	100	96.4	96.4	80.0-120	
Selenium	100	98.5	98.5	80.0-120	
Silver	20.0	17.5	87.5	80.0-120	
Zinc	100	95.6	95.6	80.0-120	

L1653700-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653700-03 09/14/23 15:32 • (MS) R3973412-5 09/14/23 15:40 • (MSD) R3973412-6 09/14/23 15:43

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 %
Barium	100	282	375	391	92.8	109	1	75.0-125			4.29	20
Cadmium	100	ND	95.4	91.8	95.0	91.4	1	75.0-125			3.89	20
Copper	100	14.3	113	107	98.4	92.8	1	75.0-125			5.13	20
Lead	100	10.7	109	107	98.4	96.4	1	75.0-125			1.80	20
Nickel	100	21.5	120	117	98.4	95.4	1	75.0-125			2.52	20
Selenium	100	ND	95.7	92.0	95.7	92.0	1	75.0-125			4.01	20
Silver	20.0	ND	17.6	16.9	88.0	84.7	1	75.0-125			3.81	20
Zinc	100	62.3	154	146	91.6	83.9	1	75.0-125			5.14	20

Method Blank (MB)

(MB) R3972932-1 09/13/23 15:36

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) R3972932-2 09/13/23 15:39 • (LCSD) R3972932-3 09/13/23 15:41

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	1.14	1.16	114	116	80.0-120			1.95	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3971946-1 09/12/23 12:12

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R3971946-2 09/12/23 12:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	101	101	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1653700-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653700-02 09/12/23 12:19 • (MS) R3971946-5 09/12/23 12:29 • (MSD) R3971946-6 09/12/23 12:32

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	7.03	84.2	97.9	77.1	90.9	5	75.0-125			15.1	20

Method Blank (MB)

(MB) R3973204-2 09/13/23 11:59

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)	93.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3973204-1 09/13/23 09:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.12	111	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			101	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3972901-2 09/13/23 21:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0222	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	95.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3972901-1 09/13/23 20:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.19	94.4	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			105	77.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3972977-3 09/13/23 06:38

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	106			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	99.2			70.0-130

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

(LCS) R3972977-1 09/13/23 05:22 • (LCSD) R3972977-2 09/13/23 05:41

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	0.117	0.127	93.6	102	70.0-123			8.20	20
Toluene	0.125	0.120	0.134	96.0	107	75.0-121			11.0	20
Ethylbenzene	0.125	0.128	0.137	102	110	74.0-126			6.79	20
Xylenes, Total	0.375	0.379	0.410	101	109	72.0-127			7.86	20
1,2,4-Trimethylbenzene	0.125	0.121	0.133	96.8	106	70.0-126			9.45	20
1,3,5-Trimethylbenzene	0.125	0.110	0.114	88.0	91.2	73.0-127			3.57	20
(S) Toluene-d8				102	104	75.0-131				
(S) 4-Bromofluorobenzene				105	101	67.0-138				
(S) 1,2-Dichloroethane-d4				103	96.5	70.0-130				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3973244-3 09/13/23 10:25

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	101			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	93.5			70.0-130

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

(LCS) R3973244-1 09/13/23 08:50 • (LCSD) R3973244-2 09/13/23 09:09

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	0.126	0.123	101	98.4	70.0-123			2.41	20
Toluene	0.125	0.119	0.119	95.2	95.2	75.0-121			0.000	20
Ethylbenzene	0.125	0.126	0.130	101	104	74.0-126			3.12	20
Xylenes, Total	0.375	0.390	0.387	104	103	72.0-127			0.772	20
1,2,4-Trimethylbenzene	0.125	0.123	0.126	98.4	101	70.0-126			2.41	20
1,3,5-Trimethylbenzene	0.125	0.121	0.128	96.8	102	73.0-127			5.62	20
(S) Toluene-d8				99.6	102	75.0-131				
(S) 4-Bromofluorobenzene				107	105	67.0-138				
(S) 1,2-Dichloroethane-d4				100	95.9	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3973823-1 09/15/23 13:41

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	61.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3973823-2 09/15/23 13:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.1	74.2	50.0-150	
(S) o-Terphenyl			71.5	18.0-148	

L1653441-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653441-03 09/15/23 14:23 • (MS) R3973814-1 09/15/23 14:35 • (MSD) R3973814-2 09/15/23 14:48

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 %
C10-C28 Diesel Range	48.3	4.47	34.3	32.4	61.8	57.9	1	50.0-150			5.70	20
(S) o-Terphenyl					41.1	38.5		18.0-148				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3974413-2 09/15/23 12:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	83.8			23.0-120
(S) Nitrobenzene-d5	99.4			14.0-149
(S) 2-Fluorobiphenyl	95.7			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3974413-1 09/15/23 12:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0673	84.1	50.0-126	
Acenaphthene	0.0800	0.0620	77.5	50.0-120	
Acenaphthylene	0.0800	0.0709	88.6	50.0-120	
Benzo(a)anthracene	0.0800	0.0690	86.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0616	77.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0546	68.3	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0540	67.5	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0567	70.9	49.0-125	
Chrysene	0.0800	0.0681	85.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0592	74.0	47.0-125	
Fluoranthene	0.0800	0.0720	90.0	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3974413-1 09/15/23 12:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0710	88.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0667	83.4	46.0-125	
Naphthalene	0.0800	0.0641	80.1	50.0-120	
Phenanthrene	0.0800	0.0643	80.4	47.0-120	
Pyrene	0.0800	0.0614	76.8	43.0-123	
1-Methylnaphthalene	0.0800	0.0698	87.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0661	82.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0658	82.3	50.0-120	
(S) p-Terphenyl-d14			83.1	23.0-120	
(S) Nitrobenzene-d5			99.3	14.0-149	
(S) 2-Fluorobiphenyl			97.6	34.0-125	

L1653676-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653676-18 09/15/23 15:26 • (MS) R3974413-3 09/15/23 15:43 • (MSD) R3974413-4 09/15/23 16:01

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 %
Anthracene	0.0792	ND	0.0239	0.0479	30.2	60.8	1	10.0-145		J3	66.9	30
Acenaphthene	0.0792	ND	0.0248	0.0472	31.3	59.9	1	14.0-127		J3	62.2	27
Acenaphthylene	0.0792	ND	0.0268	0.0519	33.8	65.9	1	21.0-124		J3	63.8	25
Benzo(a)anthracene	0.0792	ND	0.0245	0.0483	30.9	61.3	1	10.0-139		J3	65.4	30
Benzo(a)pyrene	0.0792	ND	0.0233	0.0460	29.4	58.4	1	10.0-141		J3	65.5	31
Benzo(b)fluoranthene	0.0792	ND	0.0194	0.0399	24.5	50.6	1	10.0-140		J3	69.1	36
Benzo(g,h,i)perylene	0.0792	ND	0.0199	0.0400	25.1	50.8	1	10.0-140		J3	67.1	33
Benzo(k)fluoranthene	0.0792	ND	0.0204	0.0415	25.8	52.7	1	10.0-137		J3	68.2	31
Chrysene	0.0792	ND	0.0255	0.0512	32.2	65.0	1	10.0-145		J3	67.0	30
Dibenz(a,h)anthracene	0.0792	ND	0.0213	0.0435	26.9	55.2	1	10.0-132		J3	68.5	31
Fluoranthene	0.0792	ND	0.0267	0.0512	33.7	65.0	1	10.0-153		J3	62.9	33
Fluorene	0.0792	ND	0.0273	0.0528	34.5	67.0	1	11.0-130		J3	63.7	29
Indeno(1,2,3-cd)pyrene	0.0792	ND	0.0228	0.0456	28.8	57.9	1	10.0-137		J3	66.7	32
Naphthalene	0.0792	ND	0.0279	0.0508	12.1	41.2	1	10.0-135		J3	58.2	27
Phenanthrene	0.0792	ND	0.0246	0.0477	31.1	60.5	1	10.0-144		J3	63.9	31
Pyrene	0.0792	ND	0.0234	0.0462	29.5	58.6	1	10.0-148		J3	65.5	35
1-Methylnaphthalene	0.0792	ND	0.0294	0.0546	21.3	53.4	1	10.0-142		J3	60.0	28
2-Methylnaphthalene	0.0792	0.0364	0.0270	0.0506	0.000	18.0	1	10.0-137	J6	J3	60.8	28
2-Chloronaphthalene	0.0792	ND	0.0256	0.0504	32.2	63.8	1	29.0-120		J3	65.3	24
(S) p-Terphenyl-d14					36.0	64.9		23.0-120				
(S) Nitrobenzene-d5					42.9	78.9		14.0-149				
(S) 2-Fluorobiphenyl					42.6	76.6		34.0-125				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3973878-2 09/15/23 14:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	71.8			23.0-120
(S) Nitrobenzene-d5	59.6			14.0-149
(S) 2-Fluorobiphenyl	60.3			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3973878-1 09/15/23 14:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0502	62.8	50.0-126	
Acenaphthene	0.0800	0.0510	63.8	50.0-120	
Acenaphthylene	0.0800	0.0539	67.4	50.0-120	
Benzo(a)anthracene	0.0800	0.0556	69.5	45.0-120	
Benzo(a)pyrene	0.0800	0.0605	75.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0623	77.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0587	73.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0601	75.1	49.0-125	
Chrysene	0.0800	0.0634	79.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0589	73.6	47.0-125	
Fluoranthene	0.0800	0.0554	69.3	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3973878-1 09/15/23 14:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0558	69.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0623	77.9	46.0-125	
Naphthalene	0.0800	0.0541	67.6	50.0-120	
Phenanthrene	0.0800	0.0561	70.1	47.0-120	
Pyrene	0.0800	0.0666	83.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0562	70.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0519	64.9	50.0-120	
2-Chloronaphthalene	0.0800	0.0501	62.6	50.0-120	
(S) p-Terphenyl-d14			79.3	23.0-120	
(S) Nitrobenzene-d5			74.1	14.0-149	
(S) 2-Fluorobiphenyl			70.4	34.0-125	

L1653857-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1653857-03 09/15/23 21:19 • (MS) R3974045-1 09/15/23 21:37 • (MSD) R3974045-2 09/15/23 21:54

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 %
Anthracene	0.0752	0.591	4.46	1.53	5140	1200	1	10.0-145	E V	J3 V	97.8	30
Acenaphthene	0.0752	0.669	6.26	1.58	7430	1160	1	14.0-127	E V	J3 V	119	27
Acenaphthylene	0.0752	0.0203	0.0945	0.0651	98.7	57.1	1	21.0-124		J3	36.8	25
Benzo(a)anthracene	0.0752	4.94	37.8	10.1	43700	6580	1	10.0-139	E V	E J3 V	116	30
Benzo(a)pyrene	0.0752	5.96	27.5	10.2	28600	5410	1	10.0-141	E V	E J3 V	91.8	31
Benzo(b)fluoranthene	0.0752	7.04	33.4	11.5	35100	5690	1	10.0-140	E V	E J3 V	97.6	36
Benzo(g,h,i)perylene	0.0752	4.32	15.4	6.36	14700	2600	1	10.0-140	E V	E J3 V	83.1	33
Benzo(k)fluoranthene	0.0752	2.65	10.6	4.10	10600	1850	1	10.0-137	E V	E J3 V	88.4	31
Chrysene	0.0752	5.04	41.8	10.8	48900	7350	1	10.0-145	E V	E J3 V	118	30
Dibenz(a,h)anthracene	0.0752	1.04	4.32	1.72	4360	867	1	10.0-132	E V	J3 V	86.1	31
Fluoranthene	0.0752	6.43	28.5	12.5	29300	7740	1	10.0-153	E V	E J3 V	78.0	33
Fluorene	0.0752	0.218	2.17	0.629	2600	524	1	11.0-130	J5	J3 J5	110	29
Indeno(1,2,3-cd)pyrene	0.0752	4.70	18.5	7.35	18400	3380	1	10.0-137	E V	E J3 V	86.3	32
Naphthalene	0.0752	0.179	0.771	0.263	787	107	1	10.0-135	J5	J3	98.3	27
Phenanthrene	0.0752	2.61	18.1	5.97	20600	4290	1	10.0-144	E V	E J3 V	101	31
Pyrene	0.0752	6.10	34.4	12.1	37600	7650	1	10.0-148	E V	E J3 V	95.9	35
1-Methylnaphthalene	0.0752	0.154	0.762	0.256	809	130	1	10.0-142	J5	J3	99.4	28
2-Methylnaphthalene	0.0752	0.291	1.01	0.416	956	159	1	10.0-137	J5	J3 J5	83.3	28
2-Chloronaphthalene	0.0752	ND	0.0463	0.0444	61.6	56.6	1	29.0-120			4.19	24
(S) p-Terphenyl-d14					98.9	60.1		23.0-120				
(S) Nitrobenzene-d5					65.2	59.4		14.0-149				
(S) 2-Fluorobiphenyl					58.7	52.4		34.0-125				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

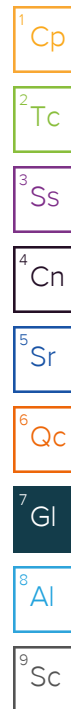
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
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.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico 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.



Laramie Energy - Grand Junction, CO

760 Horizon Dr., Ste. 101
Grand Junction, CO 81506Accounts Payable
1401 Seventeenth St, Ste 1400
Denver, CO 80202Pres
ChkReport to:
Matt Kasten

Email To: mkasten@laramie-energy.com

Project Description:

605-2 Historic

City/State
Collected:Please Circle:
PT MT CT ET

Phone: 970-263-3601

Client Project #

605-2 Historic

Lab Project #

OXYGICO-915

Collected by (print):

Matt Kasten

Site/Facility ID #

605-2

P.O. #

Collected by (signature):

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

Immediately

Packed on Ice N ☐ Y ☒No.
of
Cntrs

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

605-2 Sep Bot
 605-2 Sep Wwall
 605-2 Sep Swall
 605-2 Sep Nwall
 605-2 Sep Ewall

Grab

SS

8'

9/6/23

1210

4

X

X

X

X

X

X

SS

6'

1215

4

X

X

X

X

X

X

SS

6'

1220

4

X

X

X

X

X

X

SS

6'

1225

4

X

X

X

X

X

X

SS

6'

1230

4

X

X

X

X

X

X

SS

SS

SS

SS

SS

SS

SS

SS

SS

SS

TABLE915 GRO/DRO/ORO 4ozClr-NoPres

TABLE915 Metals 4ozClr-NoPres

TABLE915 VOCs 4ozClr-NoPres

TABLE915 pH SPCONSAR 2ozClr-NoPres

TABLE915PAHs 4ozClr-NoPres

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 #

L1653700

Table

E106

Acctnum: OXYGICO

Template: T222244

Prelogin: P973164

PM: 824 - Chris Ward

PB:

Shipped Via: FedEx Ground

Remarks

Sample # (lab only)

-01
 -02
 -03
 -04
 -05

* Matrix:

SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via:

☐ UPS ☐ FedEx ☐ Courier

Tracking #

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: ☒ 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:

9/6/23

Time:

1800

Received by: (Signature)

Trip Blank Received: Yes/No

HCL / MeOH

TBR

Relinquished by: (Signature)

Date:

9/6/23

Time:

1700

Received by: (Signature)

Temp: °C

Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Hold:

Condition:
NCF / OK