

Environmental Works Inc

Sample Delivery Group: L1393727
Samples Received: 08/21/2021
Project Number: 212509
Description: Hail - Taproot

Report To: Adam Kubat
1301 Courtesy Road
Louisville, CO 80027

Entire Report Reviewed By:



Chris Ward
Project Manager

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

SAMPLE SUMMARY

SW-01 L1393727-01 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:00	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 00:50	08/26/21 00:50	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 16:23	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730605	1	08/30/21 09:00	08/30/21 18:03	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 13:11	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 01:56	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 21:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 07:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 02:30	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 18:13	LEA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SW-02 L1393727-02 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:10	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 00:53	08/26/21 00:53	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 16:30	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730567	1	08/27/21 08:00	08/29/21 11:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:16	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:15	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:58	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 21:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 07:22	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 06:58	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 19:06	LEA	Mt. Juliet, TN

SW-03 L1393727-03 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:20	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 00:55	08/26/21 00:55	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:01	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730567	1	08/27/21 08:00	08/29/21 11:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:20	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:18	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:02	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 21:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 07:41	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 02:43	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 19:24	LEA	Mt. Juliet, TN

SW-04 L1393727-04 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:30	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 00:58	08/26/21 00:58	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:06	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730567	1	08/27/21 08:00	08/29/21 11:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:23	KMG	Mt. Juliet, TN

SAMPLE SUMMARY

SW-04 L1393727-04 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:30	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:21	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:12	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 22:14	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 08:00	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 02:56	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 19:42	LEA	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SW-05 L1393727-05 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:40	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 01:01	08/26/21 01:01	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:11	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730577	1	08/27/21 09:00	08/30/21 12:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:26	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:24	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:16	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 22:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 08:20	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 03:09	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 20:00	LEA	Mt. Juliet, TN

SW-06 L1393727-06 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 11:50	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 01:04	08/26/21 01:04	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:27	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730577	1	08/27/21 09:00	08/30/21 12:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:29	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:19	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730035	1	08/25/21 16:32	08/26/21 22:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 08:39	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 03:49	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 20:18	LEA	Mt. Juliet, TN

SW-07 L1393727-07 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 12:00	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 01:07	08/26/21 01:07	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:32	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730567	1	08/27/21 08:00	08/29/21 11:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:32	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:29	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:22	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730244	1	08/25/21 16:32	08/26/21 23:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 08:58	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 04:02	CAG	Mt. Juliet, TN

SAMPLE SUMMARY

SW-07 L1393727-07 Solid

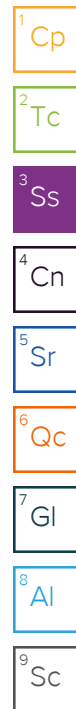
				Collected by	Collected date/time	Received date/time
					08/20/21 12:00	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 20:36	LEA	Mt. Juliet, TN

SW-08 L1393727-08 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 12:10	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 01:10	08/26/21 01:10	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:37	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730577	1	08/27/21 09:00	08/30/21 12:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:35	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:32	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:26	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730244	1	08/25/21 16:32	08/26/21 23:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 09:18	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 04:16	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 20:53	LEA	Mt. Juliet, TN

FS-01 L1393727-09 Solid

				Collected by	Collected date/time	Received date/time
					08/20/21 10:50	08/21/21 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727693	1	08/26/21 01:18	08/26/21 01:18	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 17:43	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1730577	1	08/27/21 09:00	08/30/21 12:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1728756	1	08/25/21 11:54	08/25/21 17:13	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1728619	1	08/24/21 15:31	08/25/21 15:38	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727691	1	08/25/21 10:47	08/27/21 00:35	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 03:29	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1730244	1	08/25/21 16:32	08/27/21 00:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1730283	1	08/25/21 16:32	08/27/21 09:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1732537	1	09/01/21 15:04	09/02/21 15:03	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1731331	1	08/29/21 07:32	08/29/21 21:11	LEA	Mt. Juliet, TN



CASE NARRATIVE

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



Chris Ward
Project Manager



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.65		1	08/26/2021 00:50	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 16:23	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.81	T8	1	08/30/2021 18:03	WG1730605

Sample Narrative:

L1393727-01 WG1730605: 7.81 at 24.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	983		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-01 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	180	J5	0.0852	0.500	1	08/25/2021 13:11	WG1728619
Cadmium	0.138	J	0.0471	0.500	1	08/25/2021 13:11	WG1728619
Copper	12.7		0.400	2.00	1	08/25/2021 13:11	WG1728619
Lead	9.40		0.208	0.500	1	08/25/2021 13:11	WG1728619
Nickel	10.6		0.132	2.00	1	08/25/2021 13:11	WG1728619
Selenium	1.51	J	0.764	2.00	1	08/25/2021 13:11	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 13:11	WG1728619
Zinc	47.1		0.832	5.00	1	08/25/2021 13:11	WG1728619

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.514		0.0167	0.200	1	08/27/2021 00:12	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.82		0.100	1.00	5	08/25/2021 01:56	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.781	J3 J6	0.0217	0.100	1	08/26/2021 21:08	WG1730035
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	107			77.0-120		08/26/2021 21:08	WG1730035

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 07:03	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 07:03	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 07:03	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 07:03	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 07:03	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 07:03	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 07:03	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 07:03	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 07:03	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 07:03	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 07:03	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 07:03	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 07:03	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 07:03	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 07:03	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 07:03	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 07:03	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 07:03	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 07:03	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 07:03	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 07:03	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 07:03	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 07:03	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 07:03	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 07:03	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 07:03	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 07:03	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 07:03	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 07:03	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 07:03	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 07:03	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 07:03	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 07:03	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 07:03	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 07:03	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 07:03	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 07:03	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 07:03	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 07:03	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 07:03	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 07:03	WG1730283
2-Butanone (MEK)	0.121		0.0635	0.100	1	08/27/2021 07:03	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 07:03	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 07:03	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 07:03	WG1730283
Naphthalene	0.00895	U	0.00488	0.0125	1	08/27/2021 07:03	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 07:03	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 07:03	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 07:03	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 07:03	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 07:03	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 07:03	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 07:03	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 07:03	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 07:03	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 07:03	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

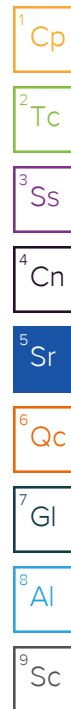
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 07:03	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 07:03	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 07:03	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 07:03	WG1730283
1,2,4-Trimethylbenzene	0.00178	<u>U</u>	0.00158	0.00500	1	08/27/2021 07:03	WG1730283
1,2,3-Trimethylbenzene	0.00625		0.00158	0.00500	1	08/27/2021 07:03	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 07:03	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 07:03	WG1730283
Xylenes, Total	0.00123	<u>U</u>	0.000880	0.00650	1	08/27/2021 07:03	WG1730283
(S) Toluene-d8	107			75.0-131		08/27/2021 07:03	WG1730283
(S) 4-Bromofluorobenzene	101			67.0-138		08/27/2021 07:03	WG1730283
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		08/27/2021 07:03	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	43.1		1.61	4.00	1	09/02/2021 02:30	WG1732537
C28-C36 Motor Oil Range	32.0		0.274	4.00	1	09/02/2021 02:30	WG1732537
(S) o-Terphenyl	50.9			18.0-148		09/02/2021 02:30	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 18:13	WG1731331
Acenaphthene	0.00361	<u>U</u>	0.00209	0.00600	1	08/29/2021 18:13	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 18:13	WG1731331
Benzo(a)anthracene	0.00254	<u>U</u>	0.00173	0.00600	1	08/29/2021 18:13	WG1731331
Benzo(a)pyrene	0.00300	<u>U</u>	0.00179	0.00600	1	08/29/2021 18:13	WG1731331
Benzo(b)fluoranthene	0.00637		0.00153	0.00600	1	08/29/2021 18:13	WG1731331
Benzo(g,h,i)perylene	0.00213	<u>U</u>	0.00177	0.00600	1	08/29/2021 18:13	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 18:13	WG1731331
Chrysene	0.00436	<u>U</u>	0.00232	0.00600	1	08/29/2021 18:13	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 18:13	WG1731331
Fluoranthene	0.00389	<u>U</u>	0.00227	0.00600	1	08/29/2021 18:13	WG1731331
Fluorene	0.0138		0.00205	0.00600	1	08/29/2021 18:13	WG1731331
Indeno(1,2,3-cd)pyrene	0.00226	<u>U</u>	0.00181	0.00600	1	08/29/2021 18:13	WG1731331
Naphthalene	0.0133	<u>U</u>	0.00408	0.0200	1	08/29/2021 18:13	WG1731331
Phenanthrene	0.0311		0.00231	0.00600	1	08/29/2021 18:13	WG1731331
Pyrene	0.00620		0.00200	0.00600	1	08/29/2021 18:13	WG1731331
1-Methylnaphthalene	0.0755		0.00449	0.0200	1	08/29/2021 18:13	WG1731331
2-Methylnaphthalene	0.0535		0.00427	0.0200	1	08/29/2021 18:13	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 18:13	WG1731331
(S) p-Terphenyl-d14	89.1			23.0-120		08/29/2021 18:13	WG1731331
(S) Nitrobenzene-d5	69.9			14.0-149		08/29/2021 18:13	WG1731331
(S) 2-Fluorobiphenyl	72.8			34.0-125		08/29/2021 18:13	WG1731331



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	7.15		1	08/26/2021 00:53	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U	J3 J6	0.255	1.00	1	08/30/2021 16:30	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.62	T8	1	08/29/2021 11:00	WG1730567

Sample Narrative:

L1393727-02 WG1730567: 7.62 at 22.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3060		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-02 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	200		0.0852	0.500	1	08/25/2021 15:16	WG1728619
Cadmium	0.198	J	0.0471	0.500	1	08/25/2021 15:16	WG1728619
Copper	12.0		0.400	2.00	1	08/25/2021 15:16	WG1728619
Lead	9.87		0.208	0.500	1	08/25/2021 15:16	WG1728619
Nickel	10.2		0.132	2.00	1	08/25/2021 15:16	WG1728619
Selenium	1.45	J	0.764	2.00	1	08/25/2021 15:16	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:16	WG1728619
Zinc	43.8		0.832	5.00	1	08/25/2021 15:16	WG1728619

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.953		0.0167	0.200	1	08/27/2021 00:15	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.45		0.100	1.00	5	08/25/2021 02:58	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.18		0.0217	0.100	1	08/26/2021 21:29	WG1730035
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.3			77.0-120		08/26/2021 21:29	WG1730035



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 07:22	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 07:22	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 07:22	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 07:22	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 07:22	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 07:22	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 07:22	WG1730283
n-Butylbenzene	0.00935	U	0.00525	0.0125	1	08/27/2021 07:22	WG1730283
sec-Butylbenzene	0.00835	U	0.00288	0.0125	1	08/27/2021 07:22	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 07:22	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 07:22	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 07:22	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 07:22	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 07:22	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 07:22	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 07:22	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 07:22	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 07:22	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 07:22	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 07:22	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 07:22	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 07:22	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 07:22	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 07:22	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 07:22	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 07:22	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 07:22	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 07:22	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 07:22	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 07:22	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 07:22	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 07:22	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 07:22	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 07:22	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 07:22	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 07:22	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 07:22	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 07:22	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 07:22	WG1730283
Isopropylbenzene	0.00165	U	0.000425	0.00250	1	08/27/2021 07:22	WG1730283
p-Isopropyltoluene	0.00760		0.00255	0.00500	1	08/27/2021 07:22	WG1730283
2-Butanone (MEK)	0.128		0.0635	0.100	1	08/27/2021 07:22	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 07:22	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 07:22	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 07:22	WG1730283
Naphthalene	0.0104	U	0.00488	0.0125	1	08/27/2021 07:22	WG1730283
n-Propylbenzene	0.00315	U	0.000950	0.00500	1	08/27/2021 07:22	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 07:22	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 07:22	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 07:22	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 07:22	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 07:22	WG1730283
Toluene	0.00155	U	0.00130	0.00500	1	08/27/2021 07:22	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 07:22	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 07:22	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 07:22	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 07:22	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 07:22	WG1730283
Trichlorofluoromethane	U	<u>J3</u>	0.000827	0.00250	1	08/27/2021 07:22	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 07:22	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 07:22	WG1730283
1,2,3-Trimethylbenzene	0.0338		0.00158	0.00500	1	08/27/2021 07:22	WG1730283
1,3,5-Trimethylbenzene	0.00930		0.00200	0.00500	1	08/27/2021 07:22	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 07:22	WG1730283
Xylenes, Total	0.0137		0.000880	0.00650	1	08/27/2021 07:22	WG1730283
(S) Toluene-d8	106			75.0-131		08/27/2021 07:22	WG1730283
(S) 4-Bromofluorobenzene	103			67.0-138		08/27/2021 07:22	WG1730283
(S) 1,2-Dichloroethane-d4	97.9			70.0-130		08/27/2021 07:22	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	166		1.61	4.00	1	09/02/2021 06:58	WG1732537
C28-C36 Motor Oil Range	111		0.274	4.00	1	09/02/2021 06:58	WG1732537
(S) o-Terphenyl	46.9			18.0-148		09/02/2021 06:58	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 19:06	WG1731331
Acenaphthene	0.0101		0.00209	0.00600	1	08/29/2021 19:06	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 19:06	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 19:06	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 19:06	WG1731331
Benzo(b)fluoranthene	0.00280	<u>U</u>	0.00153	0.00600	1	08/29/2021 19:06	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 19:06	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 19:06	WG1731331
Chrysene	0.0107		0.00232	0.00600	1	08/29/2021 19:06	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 19:06	WG1731331
Fluoranthene	0.00490	<u>U</u>	0.00227	0.00600	1	08/29/2021 19:06	WG1731331
Fluorene	0.0451		0.00205	0.00600	1	08/29/2021 19:06	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 19:06	WG1731331
Naphthalene	0.0163	<u>U</u>	0.00408	0.0200	1	08/29/2021 19:06	WG1731331
Phenanthrene	0.112		0.00231	0.00600	1	08/29/2021 19:06	WG1731331
Pyrene	0.00908		0.00200	0.00600	1	08/29/2021 19:06	WG1731331
1-Methylnaphthalene	0.133		0.00449	0.0200	1	08/29/2021 19:06	WG1731331
2-Methylnaphthalene	0.0589		0.00427	0.0200	1	08/29/2021 19:06	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 19:06	WG1731331
(S) p-Terphenyl-d14	81.3			23.0-120		08/29/2021 19:06	WG1731331
(S) Nitrobenzene-d5	86.1			14.0-149		08/29/2021 19:06	WG1731331
(S) 2-Fluorobiphenyl	69.2			34.0-125		08/29/2021 19:06	WG1731331

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.52		1	08/26/2021 00:55	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:01	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.32	T8	1	08/29/2021 11:00	WG1730567

Sample Narrative:

L1393727-03 WG1730567: 8.32 at 22.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	304		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-03 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	192		0.0852	0.500	1	08/25/2021 15:20	WG1728619
Cadmium	0.175	J	0.0471	0.500	1	08/25/2021 15:20	WG1728619
Copper	12.6		0.400	2.00	1	08/25/2021 15:20	WG1728619
Lead	10.2		0.208	0.500	1	08/25/2021 15:20	WG1728619
Nickel	11.4		0.132	2.00	1	08/25/2021 15:20	WG1728619
Selenium	2.08		0.764	2.00	1	08/25/2021 15:20	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:20	WG1728619
Zinc	43.2		0.832	5.00	1	08/25/2021 15:20	WG1728619

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.407		0.0167	0.200	1	08/27/2021 00:18	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.05		0.100	1.00	5	08/25/2021 03:02	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	08/26/2021 21:51	WG1730035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		08/26/2021 21:51	WG1730035



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 07:41	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 07:41	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 07:41	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 07:41	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 07:41	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 07:41	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 07:41	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 07:41	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 07:41	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 07:41	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 07:41	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 07:41	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 07:41	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 07:41	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 07:41	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 07:41	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 07:41	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 07:41	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 07:41	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 07:41	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 07:41	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 07:41	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 07:41	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 07:41	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 07:41	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 07:41	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 07:41	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 07:41	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 07:41	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 07:41	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 07:41	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 07:41	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 07:41	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 07:41	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 07:41	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 07:41	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 07:41	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 07:41	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 07:41	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 07:41	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 07:41	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 07:41	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 07:41	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 07:41	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 07:41	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 07:41	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 07:41	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 07:41	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 07:41	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 07:41	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 07:41	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 07:41	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 07:41	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 07:41	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 07:41	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 07:41	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 07:41	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 07:41	WG1730283
Trichlorofluoromethane	U	<u>J3</u>	0.000827	0.00250	1	08/27/2021 07:41	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 07:41	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 07:41	WG1730283
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 07:41	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 07:41	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 07:41	WG1730283
Xylenes, Total	U		0.000880	0.00650	1	08/27/2021 07:41	WG1730283
(S) Toluene-d8	106			75.0-131		08/27/2021 07:41	WG1730283
(S) 4-Bromofluorobenzene	101			67.0-138		08/27/2021 07:41	WG1730283
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		08/27/2021 07:41	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.61	4.00	1	09/02/2021 02:43	WG1732537
C28-C36 Motor Oil Range	3.67	<u>J</u>	0.274	4.00	1	09/02/2021 02:43	WG1732537
(S) o-Terphenyl	55.6			18.0-148		09/02/2021 02:43	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 19:24	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 19:24	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 19:24	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 19:24	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 19:24	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 19:24	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 19:24	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 19:24	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 19:24	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 19:24	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 19:24	WG1731331
Fluorene	U		0.00205	0.00600	1	08/29/2021 19:24	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 19:24	WG1731331
Naphthalene	U		0.00408	0.0200	1	08/29/2021 19:24	WG1731331
Phenanthrene	U		0.00231	0.00600	1	08/29/2021 19:24	WG1731331
Pyrene	U		0.00200	0.00600	1	08/29/2021 19:24	WG1731331
1-Methylnaphthalene	U		0.00449	0.0200	1	08/29/2021 19:24	WG1731331
2-Methylnaphthalene	U		0.00427	0.0200	1	08/29/2021 19:24	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 19:24	WG1731331
(S) p-Terphenyl-d14	78.7			23.0-120		08/29/2021 19:24	WG1731331
(S) Nitrobenzene-d5	59.6			14.0-149		08/29/2021 19:24	WG1731331
(S) 2-Fluorobiphenyl	65.2			34.0-125		08/29/2021 19:24	WG1731331

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	10.5		1	08/26/2021 00:58	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:06	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.97	T8	1	08/29/2021 11:00	WG1730567

Sample Narrative:

L1393727-04 WG1730567: 7.97 at 22.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3530		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-04 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	424		0.0852	0.500	1	08/25/2021 15:23	WG1728619
Cadmium	0.113	J	0.0471	0.500	1	08/25/2021 15:23	WG1728619
Copper	12.1		0.400	2.00	1	08/25/2021 15:23	WG1728619
Lead	8.81		0.208	0.500	1	08/25/2021 15:23	WG1728619
Nickel	10.4		0.132	2.00	1	08/25/2021 15:23	WG1728619
Selenium	1.49	J	0.764	2.00	1	08/25/2021 15:23	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:23	WG1728619
Zinc	44.8		0.832	5.00	1	08/25/2021 15:23	WG1728619

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

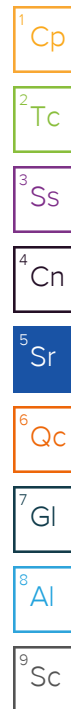
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	2.04		0.0167	0.200	1	08/27/2021 00:21	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.66		0.100	1.00	5	08/25/2021 03:12	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.23		0.0217	0.100	1	08/26/2021 22:14	WG1730035
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	89.4			77.0-120		08/26/2021 22:14	WG1730035



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 08:00	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 08:00	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 08:00	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 08:00	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 08:00	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 08:00	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 08:00	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 08:00	WG1730283
sec-Butylbenzene	0.00378	U	0.00288	0.0125	1	08/27/2021 08:00	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 08:00	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 08:00	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 08:00	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 08:00	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 08:00	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 08:00	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 08:00	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 08:00	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 08:00	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 08:00	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 08:00	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 08:00	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 08:00	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 08:00	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 08:00	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 08:00	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 08:00	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 08:00	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 08:00	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 08:00	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 08:00	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 08:00	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 08:00	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 08:00	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 08:00	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 08:00	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 08:00	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 08:00	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 08:00	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 08:00	WG1730283
Isopropylbenzene	0.000950	U	0.000425	0.00250	1	08/27/2021 08:00	WG1730283
p-Isopropyltoluene	0.00470	U	0.00255	0.00500	1	08/27/2021 08:00	WG1730283
2-Butanone (MEK)	0.0877	U	0.0635	0.100	1	08/27/2021 08:00	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 08:00	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 08:00	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 08:00	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 08:00	WG1730283
n-Propylbenzene	0.00260	U	0.000950	0.00500	1	08/27/2021 08:00	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 08:00	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 08:00	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 08:00	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 08:00	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 08:00	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 08:00	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 08:00	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 08:00	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 08:00	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 08:00	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 08:00	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 08:00	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 08:00	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 08:00	WG1730283
1,2,3-Trimethylbenzene	0.0140		0.00158	0.00500	1	08/27/2021 08:00	WG1730283
1,3,5-Trimethylbenzene	0.00298	<u>U</u>	0.00200	0.00500	1	08/27/2021 08:00	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 08:00	WG1730283
Xylenes, Total	0.00425	<u>U</u>	0.000880	0.00650	1	08/27/2021 08:00	WG1730283
(S) Toluene-d8	106			75.0-131		08/27/2021 08:00	WG1730283
(S) 4-Bromofluorobenzene	104			67.0-138		08/27/2021 08:00	WG1730283
(S) 1,2-Dichloroethane-d4	96.5			70.0-130		08/27/2021 08:00	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.96		1.61	4.00	1	09/02/2021 02:56	WG1732537
C28-C36 Motor Oil Range	3.51	<u>U</u>	0.274	4.00	1	09/02/2021 02:56	WG1732537
(S) o-Terphenyl	33.3			18.0-148		09/02/2021 02:56	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 19:42	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 19:42	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 19:42	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 19:42	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 19:42	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 19:42	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 19:42	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 19:42	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 19:42	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 19:42	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 19:42	WG1731331
Fluorene	U		0.00205	0.00600	1	08/29/2021 19:42	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 19:42	WG1731331
Naphthalene	U		0.00408	0.0200	1	08/29/2021 19:42	WG1731331
Phenanthrene	U		0.00231	0.00600	1	08/29/2021 19:42	WG1731331
Pyrene	U		0.00200	0.00600	1	08/29/2021 19:42	WG1731331
1-Methylnaphthalene	0.00627	<u>U</u>	0.00449	0.0200	1	08/29/2021 19:42	WG1731331
2-Methylnaphthalene	U		0.00427	0.0200	1	08/29/2021 19:42	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 19:42	WG1731331
(S) p-Terphenyl-d14	94.5			23.0-120		08/29/2021 19:42	WG1731331
(S) Nitrobenzene-d5	73.3			14.0-149		08/29/2021 19:42	WG1731331
(S) 2-Fluorobiphenyl	73.0			34.0-125		08/29/2021 19:42	WG1731331

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.73		1	08/26/2021 01:01	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:11	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.96	T8	1	08/30/2021 12:00	WG1730577

Sample Narrative:

L1393727-05 WG1730577: 7.96 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1440		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-05 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	446		0.0852	0.500	1	08/25/2021 15:26	WG1728619
Cadmium	0.143	J	0.0471	0.500	1	08/25/2021 15:26	WG1728619
Copper	15.8		0.400	2.00	1	08/25/2021 15:26	WG1728619
Lead	10.5		0.208	0.500	1	08/25/2021 15:26	WG1728619
Nickel	13.1		0.132	2.00	1	08/25/2021 15:26	WG1728619
Selenium	2.23		0.764	2.00	1	08/25/2021 15:26	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:26	WG1728619
Zinc	56.1		0.832	5.00	1	08/25/2021 15:26	WG1728619

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

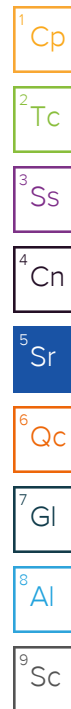
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.744		0.0167	0.200	1	08/27/2021 00:24	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.24		0.100	1.00	5	08/25/2021 03:16	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0247	J	0.0217	0.100	1	08/26/2021 22:36	WG1730035
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		08/26/2021 22:36	WG1730035



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 08:20	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 08:20	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 08:20	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 08:20	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 08:20	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 08:20	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 08:20	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 08:20	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 08:20	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 08:20	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 08:20	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 08:20	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 08:20	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 08:20	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 08:20	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 08:20	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 08:20	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 08:20	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 08:20	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 08:20	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 08:20	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 08:20	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 08:20	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 08:20	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 08:20	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 08:20	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 08:20	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 08:20	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 08:20	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 08:20	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 08:20	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 08:20	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 08:20	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 08:20	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 08:20	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 08:20	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 08:20	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 08:20	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 08:20	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 08:20	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 08:20	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 08:20	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 08:20	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 08:20	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 08:20	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 08:20	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 08:20	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 08:20	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 08:20	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 08:20	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 08:20	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 08:20	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 08:20	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 08:20	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 08:20	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 08:20	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

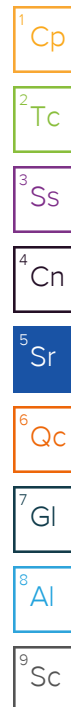
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 08:20	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 08:20	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 08:20	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 08:20	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 08:20	WG1730283
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 08:20	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 08:20	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 08:20	WG1730283
Xylenes, Total	U		0.000880	0.00650	1	08/27/2021 08:20	WG1730283
(S) Toluene-d8	104			75.0-131		08/27/2021 08:20	WG1730283
(S) 4-Bromofluorobenzene	102			67.0-138		08/27/2021 08:20	WG1730283
(S) 1,2-Dichloroethane-d4	95.6			70.0-130		08/27/2021 08:20	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.61	4.00	1	09/02/2021 03:09	WG1732537
C28-C36 Motor Oil Range	2.54	<u>1</u>	0.274	4.00	1	09/02/2021 03:09	WG1732537
(S) o-Terphenyl	49.2			18.0-148		09/02/2021 03:09	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 20:00	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 20:00	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 20:00	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 20:00	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 20:00	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 20:00	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 20:00	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 20:00	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 20:00	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 20:00	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 20:00	WG1731331
Fluorene	U		0.00205	0.00600	1	08/29/2021 20:00	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 20:00	WG1731331
Naphthalene	U		0.00408	0.0200	1	08/29/2021 20:00	WG1731331
Phenanthrene	U		0.00231	0.00600	1	08/29/2021 20:00	WG1731331
Pyrene	U		0.00200	0.00600	1	08/29/2021 20:00	WG1731331
1-Methylnaphthalene	0.00520	<u>1</u>	0.00449	0.0200	1	08/29/2021 20:00	WG1731331
2-Methylnaphthalene	0.00445	<u>1</u>	0.00427	0.0200	1	08/29/2021 20:00	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 20:00	WG1731331
(S) p-Terphenyl-d14	80.7			23.0-120		08/29/2021 20:00	WG1731331
(S) Nitrobenzene-d5	65.7			14.0-149		08/29/2021 20:00	WG1731331
(S) 2-Fluorobiphenyl	64.5			34.0-125		08/29/2021 20:00	WG1731331



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.68		1	08/26/2021 01:04	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:27	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.02	T8	1	08/30/2021 12:00	WG1730577

Sample Narrative:

L1393727-06 WG1730577: 8.02 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1160		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-06 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	200		0.0852	0.500	1	08/25/2021 15:29	WG1728619
Cadmium	0.145	J	0.0471	0.500	1	08/25/2021 15:29	WG1728619
Copper	13.1		0.400	2.00	1	08/25/2021 15:29	WG1728619
Lead	8.92		0.208	0.500	1	08/25/2021 15:29	WG1728619
Nickel	11.0		0.132	2.00	1	08/25/2021 15:29	WG1728619
Selenium	1.67	J	0.764	2.00	1	08/25/2021 15:29	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:29	WG1728619
Zinc	47.1		0.832	5.00	1	08/25/2021 15:29	WG1728619

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

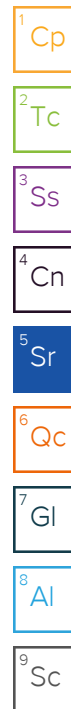
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.674		0.0167	0.200	1	08/27/2021 00:27	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.72		0.100	1.00	5	08/25/2021 03:19	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.496		0.0217	0.100	1	08/26/2021 22:57	WG1730035
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120		08/26/2021 22:57	WG1730035



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 08:39	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 08:39	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 08:39	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 08:39	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 08:39	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 08:39	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 08:39	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 08:39	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 08:39	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 08:39	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 08:39	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 08:39	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 08:39	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 08:39	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 08:39	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 08:39	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 08:39	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 08:39	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 08:39	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 08:39	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 08:39	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 08:39	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 08:39	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 08:39	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 08:39	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 08:39	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 08:39	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 08:39	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 08:39	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 08:39	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 08:39	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 08:39	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 08:39	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 08:39	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 08:39	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 08:39	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 08:39	WG1730283
Ethylbenzene	0.00280		0.000737	0.00250	1	08/27/2021 08:39	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 08:39	WG1730283
Isopropylbenzene	0.00140	U	0.000425	0.00250	1	08/27/2021 08:39	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 08:39	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 08:39	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 08:39	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 08:39	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 08:39	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 08:39	WG1730283
n-Propylbenzene	0.00253	U	0.000950	0.00500	1	08/27/2021 08:39	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 08:39	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 08:39	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 08:39	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 08:39	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 08:39	WG1730283
Toluene	0.00290	U	0.00130	0.00500	1	08/27/2021 08:39	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 08:39	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 08:39	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 08:39	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 08:39	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 08:39	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 08:39	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 08:39	WG1730283
1,2,4-Trimethylbenzene	0.00510		0.00158	0.00500	1	08/27/2021 08:39	WG1730283
1,2,3-Trimethylbenzene	0.00483	<u>1</u>	0.00158	0.00500	1	08/27/2021 08:39	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 08:39	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 08:39	WG1730283
Xylenes, Total	0.00926		0.000880	0.00650	1	08/27/2021 08:39	WG1730283
(S) Toluene-d8	104			75.0-131		08/27/2021 08:39	WG1730283
(S) 4-Bromofluorobenzene	102			67.0-138		08/27/2021 08:39	WG1730283
(S) 1,2-Dichloroethane-d4	92.6			70.0-130		08/27/2021 08:39	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.57	<u>1</u>	1.61	4.00	1	09/02/2021 03:49	WG1732537
C28-C36 Motor Oil Range	3.23	<u>1</u>	0.274	4.00	1	09/02/2021 03:49	WG1732537
(S) o-Terphenyl	42.3			18.0-148		09/02/2021 03:49	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 20:18	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 20:18	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 20:18	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 20:18	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 20:18	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 20:18	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 20:18	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 20:18	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 20:18	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 20:18	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 20:18	WG1731331
Fluorene	0.00937		0.00205	0.00600	1	08/29/2021 20:18	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 20:18	WG1731331
Naphthalene	0.00722	<u>1</u>	0.00408	0.0200	1	08/29/2021 20:18	WG1731331
Phenanthrene	0.0248		0.00231	0.00600	1	08/29/2021 20:18	WG1731331
Pyrene	0.00210	<u>1</u>	0.00200	0.00600	1	08/29/2021 20:18	WG1731331
1-Methylnaphthalene	0.0388		0.00449	0.0200	1	08/29/2021 20:18	WG1731331
2-Methylnaphthalene	0.0302		0.00427	0.0200	1	08/29/2021 20:18	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 20:18	WG1731331
(S) p-Terphenyl-d14	83.9			23.0-120		08/29/2021 20:18	WG1731331
(S) Nitrobenzene-d5	67.0			14.0-149		08/29/2021 20:18	WG1731331
(S) 2-Fluorobiphenyl	70.9			34.0-125		08/29/2021 20:18	WG1731331

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	3.51		1	08/26/2021 01:07	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:32	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.90	T8	1	08/29/2021 11:00	WG1730567

Sample Narrative:

L1393727-07 WG1730567: 7.9 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1580		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-07 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	245		0.0852	0.500	1	08/25/2021 15:32	WG1728619
Cadmium	0.210	J	0.0471	0.500	1	08/25/2021 15:32	WG1728619
Copper	13.3		0.400	2.00	1	08/25/2021 15:32	WG1728619
Lead	9.78		0.208	0.500	1	08/25/2021 15:32	WG1728619
Nickel	11.4		0.132	2.00	1	08/25/2021 15:32	WG1728619
Selenium	1.82	J	0.764	2.00	1	08/25/2021 15:32	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:32	WG1728619
Zinc	47.3		0.832	5.00	1	08/25/2021 15:32	WG1728619

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.733		0.0167	0.200	1	08/27/2021 00:29	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.84		0.100	1.00	5	08/25/2021 03:22	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0382	J	0.0217	0.100	1	08/26/2021 23:19	WG1730244
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	96.1			77.0-120		08/26/2021 23:19	WG1730244



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 08:58	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 08:58	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 08:58	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 08:58	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 08:58	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 08:58	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 08:58	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 08:58	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 08:58	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 08:58	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 08:58	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 08:58	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 08:58	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 08:58	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 08:58	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 08:58	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 08:58	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 08:58	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 08:58	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 08:58	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 08:58	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 08:58	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 08:58	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 08:58	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 08:58	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 08:58	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 08:58	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 08:58	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 08:58	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 08:58	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 08:58	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 08:58	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 08:58	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 08:58	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 08:58	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 08:58	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 08:58	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 08:58	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 08:58	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 08:58	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 08:58	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 08:58	WG1730283
Methylene Chloride	0.00695	U	0.00664	0.0250	1	08/27/2021 08:58	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 08:58	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 08:58	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 08:58	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 08:58	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 08:58	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 08:58	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 08:58	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 08:58	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 08:58	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 08:58	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 08:58	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 08:58	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 08:58	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 08:58	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 08:58	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 08:58	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 08:58	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 08:58	WG1730283
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 08:58	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 08:58	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 08:58	WG1730283
Xylenes, Total	U		0.000880	0.00650	1	08/27/2021 08:58	WG1730283
(S) Toluene-d8	104			75.0-131		08/27/2021 08:58	WG1730283
(S) 4-Bromofluorobenzene	103			67.0-138		08/27/2021 08:58	WG1730283
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		08/27/2021 08:58	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.38		1.61	4.00	1	09/02/2021 04:02	WG1732537
C28-C36 Motor Oil Range	4.90		0.274	4.00	1	09/02/2021 04:02	WG1732537
(S) o-Terphenyl	50.9			18.0-148		09/02/2021 04:02	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 20:36	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 20:36	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 20:36	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 20:36	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 20:36	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 20:36	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 20:36	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 20:36	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 20:36	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 20:36	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 20:36	WG1731331
Fluorene	0.00899		0.00205	0.00600	1	08/29/2021 20:36	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 20:36	WG1731331
Naphthalene	U		0.00408	0.0200	1	08/29/2021 20:36	WG1731331
Phenanthrene	0.0259		0.00231	0.00600	1	08/29/2021 20:36	WG1731331
Pyrene	0.00203	<u>1</u>	0.00200	0.00600	1	08/29/2021 20:36	WG1731331
1-Methylnaphthalene	0.0303		0.00449	0.0200	1	08/29/2021 20:36	WG1731331
2-Methylnaphthalene	0.0215		0.00427	0.0200	1	08/29/2021 20:36	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 20:36	WG1731331
(S) p-Terphenyl-d14	86.5			23.0-120		08/29/2021 20:36	WG1731331
(S) Nitrobenzene-d5	69.2			14.0-149		08/29/2021 20:36	WG1731331
(S) 2-Fluorobiphenyl	72.4			34.0-125		08/29/2021 20:36	WG1731331

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	9.80		1	08/26/2021 01:10	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:37	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.84	T8	1	08/30/2021 12:00	WG1730577

Sample Narrative:

L1393727-08 WG1730577: 7.84 at 22.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3490		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-08 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	196		0.0852	0.500	1	08/25/2021 15:35	WG1728619
Cadmium	0.146	J	0.0471	0.500	1	08/25/2021 15:35	WG1728619
Copper	12.2		0.400	2.00	1	08/25/2021 15:35	WG1728619
Lead	9.79		0.208	0.500	1	08/25/2021 15:35	WG1728619
Nickel	10.3		0.132	2.00	1	08/25/2021 15:35	WG1728619
Selenium	2.25		0.764	2.00	1	08/25/2021 15:35	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:35	WG1728619
Zinc	44.4		0.832	5.00	1	08/25/2021 15:35	WG1728619

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

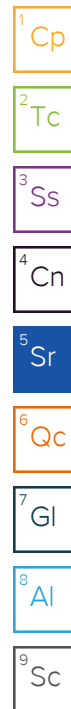
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.999		0.0167	0.200	1	08/27/2021 00:32	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.46		0.100	1.00	5	08/25/2021 03:26	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.867		0.0217	0.100	1	08/26/2021 23:41	WG1730244
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102			77.0-120		08/26/2021 23:41	WG1730244



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 09:18	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 09:18	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 09:18	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 09:18	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 09:18	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 09:18	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 09:18	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 09:18	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 09:18	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 09:18	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 09:18	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 09:18	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 09:18	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 09:18	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 09:18	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 09:18	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 09:18	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 09:18	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 09:18	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 09:18	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 09:18	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 09:18	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 09:18	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 09:18	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 09:18	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 09:18	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 09:18	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 09:18	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 09:18	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 09:18	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 09:18	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 09:18	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 09:18	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 09:18	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 09:18	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 09:18	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 09:18	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 09:18	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 09:18	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 09:18	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 09:18	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 09:18	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 09:18	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 09:18	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 09:18	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 09:18	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 09:18	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 09:18	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 09:18	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 09:18	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 09:18	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 09:18	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 09:18	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 09:18	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 09:18	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 09:18	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 09:18	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 09:18	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 09:18	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 09:18	WG1730283
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 09:18	WG1730283
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 09:18	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 09:18	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 09:18	WG1730283
Xylenes, Total	U		0.000880	0.00650	1	08/27/2021 09:18	WG1730283
(S) Toluene-d8	104			75.0-131		08/27/2021 09:18	WG1730283
(S) 4-Bromofluorobenzene	103			67.0-138		08/27/2021 09:18	WG1730283
(S) 1,2-Dichloroethane-d4	97.3			70.0-130		08/27/2021 09:18	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	49.5		1.61	4.00	1	09/02/2021 04:16	WG1732537
C28-C36 Motor Oil Range	35.2		0.274	4.00	1	09/02/2021 04:16	WG1732537
(S) o-Terphenyl	46.0			18.0-148		09/02/2021 04:16	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 20:53	WG1731331
Acenaphthene	0.00513	<u>U</u>	0.00209	0.00600	1	08/29/2021 20:53	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 20:53	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 20:53	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 20:53	WG1731331
Benzo(b)fluoranthene	0.00196	<u>U</u>	0.00153	0.00600	1	08/29/2021 20:53	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 20:53	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 20:53	WG1731331
Chrysene	0.00677		0.00232	0.00600	1	08/29/2021 20:53	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 20:53	WG1731331
Fluoranthene	0.00278	<u>U</u>	0.00227	0.00600	1	08/29/2021 20:53	WG1731331
Fluorene	0.0228		0.00205	0.00600	1	08/29/2021 20:53	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 20:53	WG1731331
Naphthalene	0.0135	<u>U</u>	0.00408	0.0200	1	08/29/2021 20:53	WG1731331
Phenanthrene	0.0684		0.00231	0.00600	1	08/29/2021 20:53	WG1731331
Pyrene	0.00591	<u>U</u>	0.00200	0.00600	1	08/29/2021 20:53	WG1731331
1-Methylnaphthalene	0.0788		0.00449	0.0200	1	08/29/2021 20:53	WG1731331
2-Methylnaphthalene	0.0580		0.00427	0.0200	1	08/29/2021 20:53	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 20:53	WG1731331
(S) p-Terphenyl-d14	86.8			23.0-120		08/29/2021 20:53	WG1731331
(S) Nitrobenzene-d5	65.8			14.0-149		08/29/2021 20:53	WG1731331
(S) 2-Fluorobiphenyl	69.9			34.0-125		08/29/2021 20:53	WG1731331

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.21		1	08/26/2021 01:18	WG1727693

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	08/30/2021 17:43	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.06	T8	1	08/30/2021 12:00	WG1730577

Sample Narrative:

L1393727-09 WG1730577: 8.06 at 22.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1750		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393727-09 WG1728756: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	230		0.0852	0.500	1	08/25/2021 15:38	WG1728619
Cadmium	0.127	J	0.0471	0.500	1	08/25/2021 15:38	WG1728619
Copper	12.7		0.400	2.00	1	08/25/2021 15:38	WG1728619
Lead	8.96		0.208	0.500	1	08/25/2021 15:38	WG1728619
Nickel	10.8		0.132	2.00	1	08/25/2021 15:38	WG1728619
Selenium	1.54	J	0.764	2.00	1	08/25/2021 15:38	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 15:38	WG1728619
Zinc	45.0		0.832	5.00	1	08/25/2021 15:38	WG1728619

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.41		0.0167	0.200	1	08/27/2021 00:35	WG1727691

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.42		0.100	1.00	5	08/25/2021 03:29	WG1728626

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0725	J	0.0217	0.100	1	08/27/2021 00:03	WG1730244
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.4			77.0-120		08/27/2021 00:03	WG1730244



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0365	0.0500	1	08/27/2021 09:37	WG1730283
Acrylonitrile	U		0.00361	0.0125	1	08/27/2021 09:37	WG1730283
Benzene	U		0.000467	0.00100	1	08/27/2021 09:37	WG1730283
Bromobenzene	U		0.000900	0.0125	1	08/27/2021 09:37	WG1730283
Bromodichloromethane	U		0.000725	0.00250	1	08/27/2021 09:37	WG1730283
Bromoform	U		0.00117	0.0250	1	08/27/2021 09:37	WG1730283
Bromomethane	U		0.00197	0.0125	1	08/27/2021 09:37	WG1730283
n-Butylbenzene	U		0.00525	0.0125	1	08/27/2021 09:37	WG1730283
sec-Butylbenzene	U		0.00288	0.0125	1	08/27/2021 09:37	WG1730283
tert-Butylbenzene	U		0.00195	0.00500	1	08/27/2021 09:37	WG1730283
Carbon tetrachloride	U		0.000898	0.00500	1	08/27/2021 09:37	WG1730283
Chlorobenzene	U		0.000210	0.00250	1	08/27/2021 09:37	WG1730283
Chlorodibromomethane	U		0.000612	0.00250	1	08/27/2021 09:37	WG1730283
Chloroethane	U		0.00170	0.00500	1	08/27/2021 09:37	WG1730283
Chloroform	U		0.00103	0.00250	1	08/27/2021 09:37	WG1730283
Chloromethane	U		0.00435	0.0125	1	08/27/2021 09:37	WG1730283
2-Chlorotoluene	U		0.000865	0.00250	1	08/27/2021 09:37	WG1730283
4-Chlorotoluene	U		0.000450	0.00500	1	08/27/2021 09:37	WG1730283
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/27/2021 09:37	WG1730283
1,2-Dibromoethane	U		0.000648	0.00250	1	08/27/2021 09:37	WG1730283
Dibromomethane	U		0.000750	0.00500	1	08/27/2021 09:37	WG1730283
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/27/2021 09:37	WG1730283
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/27/2021 09:37	WG1730283
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/27/2021 09:37	WG1730283
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/27/2021 09:37	WG1730283
1,1-Dichloroethane	U		0.000491	0.00250	1	08/27/2021 09:37	WG1730283
1,2-Dichloroethane	U		0.000649	0.00250	1	08/27/2021 09:37	WG1730283
1,1-Dichloroethene	U		0.000606	0.00250	1	08/27/2021 09:37	WG1730283
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/27/2021 09:37	WG1730283
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/27/2021 09:37	WG1730283
1,2-Dichloropropane	U		0.00142	0.00500	1	08/27/2021 09:37	WG1730283
1,1-Dichloropropene	U		0.000809	0.00250	1	08/27/2021 09:37	WG1730283
1,3-Dichloropropane	U		0.000501	0.00500	1	08/27/2021 09:37	WG1730283
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/27/2021 09:37	WG1730283
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/27/2021 09:37	WG1730283
2,2-Dichloropropane	U		0.00138	0.00250	1	08/27/2021 09:37	WG1730283
Di-isopropyl ether	U		0.000410	0.00100	1	08/27/2021 09:37	WG1730283
Ethylbenzene	U		0.000737	0.00250	1	08/27/2021 09:37	WG1730283
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/27/2021 09:37	WG1730283
Isopropylbenzene	U		0.000425	0.00250	1	08/27/2021 09:37	WG1730283
p-Isopropyltoluene	U		0.00255	0.00500	1	08/27/2021 09:37	WG1730283
2-Butanone (MEK)	U		0.0635	0.100	1	08/27/2021 09:37	WG1730283
Methylene Chloride	U		0.00664	0.0250	1	08/27/2021 09:37	WG1730283
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/27/2021 09:37	WG1730283
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/27/2021 09:37	WG1730283
Naphthalene	U		0.00488	0.0125	1	08/27/2021 09:37	WG1730283
n-Propylbenzene	U		0.000950	0.00500	1	08/27/2021 09:37	WG1730283
Styrene	U		0.000229	0.0125	1	08/27/2021 09:37	WG1730283
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/27/2021 09:37	WG1730283
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/27/2021 09:37	WG1730283
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	1	08/27/2021 09:37	WG1730283
Tetrachloroethene	U		0.000896	0.00250	1	08/27/2021 09:37	WG1730283
Toluene	U		0.00130	0.00500	1	08/27/2021 09:37	WG1730283
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/27/2021 09:37	WG1730283
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/27/2021 09:37	WG1730283
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/27/2021 09:37	WG1730283

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/27/2021 09:37	WG1730283
Trichloroethene	U		0.000584	0.00100	1	08/27/2021 09:37	WG1730283
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/27/2021 09:37	WG1730283
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/27/2021 09:37	WG1730283
1,2,4-Trimethylbenzene	0.00188	<u>U</u>	0.00158	0.00500	1	08/27/2021 09:37	WG1730283
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/27/2021 09:37	WG1730283
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/27/2021 09:37	WG1730283
Vinyl chloride	U		0.00116	0.00250	1	08/27/2021 09:37	WG1730283
Xylenes, Total	0.00103	<u>U</u>	0.000880	0.00650	1	08/27/2021 09:37	WG1730283
(S) Toluene-d8	105			75.0-131		08/27/2021 09:37	WG1730283
(S) 4-Bromofluorobenzene	102			67.0-138		08/27/2021 09:37	WG1730283
(S) 1,2-Dichloroethane-d4	94.1			70.0-130		08/27/2021 09:37	WG1730283

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	6.42		1.61	4.00	1	09/02/2021 15:03	WG1732537
C28-C36 Motor Oil Range	5.75		0.274	4.00	1	09/02/2021 15:03	WG1732537
(S) o-Terphenyl	33.5			18.0-148		09/02/2021 15:03	WG1732537

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	08/29/2021 21:11	WG1731331
Acenaphthene	U		0.00209	0.00600	1	08/29/2021 21:11	WG1731331
Acenaphthylene	U		0.00216	0.00600	1	08/29/2021 21:11	WG1731331
Benzo(a)anthracene	U		0.00173	0.00600	1	08/29/2021 21:11	WG1731331
Benzo(a)pyrene	U		0.00179	0.00600	1	08/29/2021 21:11	WG1731331
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/29/2021 21:11	WG1731331
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/29/2021 21:11	WG1731331
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/29/2021 21:11	WG1731331
Chrysene	U		0.00232	0.00600	1	08/29/2021 21:11	WG1731331
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/29/2021 21:11	WG1731331
Fluoranthene	U		0.00227	0.00600	1	08/29/2021 21:11	WG1731331
Fluorene	0.00495	<u>U</u>	0.00205	0.00600	1	08/29/2021 21:11	WG1731331
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/29/2021 21:11	WG1731331
Naphthalene	0.0108	<u>U</u>	0.00408	0.0200	1	08/29/2021 21:11	WG1731331
Phenanthrene	0.0120		0.00231	0.00600	1	08/29/2021 21:11	WG1731331
Pyrene	U		0.00200	0.00600	1	08/29/2021 21:11	WG1731331
1-Methylnaphthalene	0.0336		0.00449	0.0200	1	08/29/2021 21:11	WG1731331
2-Methylnaphthalene	0.0284		0.00427	0.0200	1	08/29/2021 21:11	WG1731331
2-Chloronaphthalene	U		0.00466	0.0200	1	08/29/2021 21:11	WG1731331
(S) p-Terphenyl-d14	81.9			23.0-120		08/29/2021 21:11	WG1731331
(S) Nitrobenzene-d5	70.1			14.0-149		08/29/2021 21:11	WG1731331
(S) 2-Fluorobiphenyl	65.5			34.0-125		08/29/2021 21:11	WG1731331

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3698001-1 08/30/21 09:32

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

L1393555-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1393555-01 08/30/21 09:43 • (DUP) R3698001-3 08/30/21 09:48

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

L1393727-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1393727-02 08/30/21 16:30 • (DUP) R3698001-4 08/30/21 16:35

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

Laboratory Control Sample (LCS)

(LCS) R3698001-2 08/30/21 09:37

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

L1393727-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-02 08/30/21 16:30 • (MS) R3698001-5 08/30/21 16:40 • (MSD) R3698001-6 08/30/21 16:45

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	17.1	13.2	85.5	65.9	1	75.0-125		J3 J6	25.9	20

L1393727-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1393727-02 08/30/21 16:30 • (MS) R3698001-7 08/30/21 16:51

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	631	U	669	106	50	75.0-125	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1393687-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1393687-01 08/29/21 11:00 • (DUP) R3697763-2 08/29/21 11:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	5.30	5.26	1	0.758		1

Sample Narrative:

OS: 5.3 at 22.7C

DUP: 5.26 at 22.8C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1393687-77 Original Sample (OS) • Duplicate (DUP)

(OS) L1393687-77 08/29/21 11:00 • (DUP) R3697763-3 08/29/21 11:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	5.98	6.02	1	0.667		1

Sample Narrative:

OS: 5.98 at 22.5C

DUP: 6.02 at 22.5C

Laboratory Control Sample (LCS)

(LCS) R3697763-1 08/29/21 11:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.05 at 22.5C

L1393687-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1393687-31 08/30/21 12:00 • (DUP) R3698031-2 08/30/21 12:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	6.68	6.68	1	0.000		1

Sample Narrative:

OS: 6.68 at 22.7C

DUP: 6.68 at 22.6C



L1393803-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1393803-02 08/30/21 12:00 • (DUP) R3698031-3 08/30/21 12:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.50	8.51	1	0.118		1

Sample Narrative:

OS: 8.5 at 22.7C

DUP: 8.51 at 22.8C

Laboratory Control Sample (LCS)

(LCS) R3698031-1 08/30/21 12:00

	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: 10.04 at 22.5C

L1393727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1393727-01 08/30/21 18:03 • (DUP) R3698257-2 08/30/21 18:03

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.81	7.86	1	0.638		1

Sample Narrative:

OS: 7.81 at 24.5C

DUP: 7.86 at 24.3C



L1395278-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1395278-05 08/30/21 18:03 • (DUP) R3698257-3 08/30/21 18:03

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.63	7.68	1	0.653		1

Sample Narrative:

OS: 7.63 at 22.5C

DUP: 7.68 at 22.2C

Laboratory Control Sample (LCS)

(LCS) R3698257-1 08/30/21 18:03

	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: 10.04 at 23C

Method Blank (MB)

(MB) R3696423-1 08/25/21 17:13

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

L1393727-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1393727-02 08/25/21 17:13 • (DUP) R3696423-3 08/25/21 17:13

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3060	3110	1	1.62		20

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

L1393944-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1393944-02 08/25/21 17:13 • (DUP) R3696423-4 08/25/21 17:13

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	15600	15500	1	0.322		20

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

Laboratory Control Sample (LCS)

(LCS) R3696423-2 08/25/21 17:13

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	899	904	101	85.0-115	

Sample Narrative:
LCS: at 25C

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3696296-1 08/25/21 13:05

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

Laboratory Control Sample (LCS)

(LCS) R3696296-2 08/25/21 13:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	98.6	98.6	80.0-120	
Cadmium	100	95.6	95.6	80.0-120	
Copper	100	99.7	99.7	80.0-120	
Lead	100	99.3	99.3	80.0-120	
Nickel	100	99.9	99.9	80.0-120	
Selenium	100	99.8	99.8	80.0-120	
Silver	20.0	19.4	96.8	80.0-120	
Zinc	100	97.6	97.6	80.0-120	

L1393727-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-01 08/25/21 13:11 • (MS) R3696296-5 08/25/21 13:20 • (MSD) R3696296-6 08/25/21 13:23

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	180	272	326	91.9	147	1	75.0-125		J5	18.3	20
Cadmium	100	0.138	89.9	101	89.8	101	1	75.0-125			11.6	20
Copper	100	12.7	107	120	94.6	108	1	75.0-125			11.5	20
Lead	100	9.40	101	111	92.0	102	1	75.0-125			9.31	20
Nickel	100	10.6	102	114	91.9	104	1	75.0-125			11.0	20
Selenium	100	1.51	95.3	106	93.8	105	1	75.0-125			10.7	20
Silver	20.0	U	18.4	20.7	91.8	103	1	75.0-125			11.9	20
Zinc	100	47.1	127	140	79.7	92.7	1	75.0-125			9.75	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3697190-1 08/26/21 23:36

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

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

(LCS) R3697190-2 08/26/21 23:39 • (LCSD) R3697190-3 08/26/21 23:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.12	1.19	112	119	80.0-120			5.79	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3696040-1 08/25/21 01:49

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

Laboratory Control Sample (LCS)

(LCS) R3696040-2 08/25/21 01:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.3	90.3	80.0-120	

L1393727-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-01 08/25/21 01:56 • (MS) R3696040-5 08/25/21 02:07 • (MSD) R3696040-6 08/25/21 02:10

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	2.82	81.8	93.8	79.0	90.9	5	75.0-125			13.6	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3699162-3 08/26/21 13:47

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)	110			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3699162-2 08/26/21 13:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.00	109	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			102	77.0-120	

L1393727-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-01 08/26/21 21:08 • (MS) R3699162-4 08/26/21 23:19 • (MSD) R3699162-5 08/26/21 23:40

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 %
TPH (GC/FID) Low Fraction	5.50	0.781	2.17	1.25	25.3	8.53	1	10.0-151		J3 J6	53.8	28
(S) a,a,a-Trifluorotoluene(FID)					97.2	95.8		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3697120-3 08/26/21 19:39				
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.7			77.0-120

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

(LCS) R3697120-1 08/26/21 18:25 • (LCSD) R3697120-2 08/26/21 18:47										
Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	4.86	4.79	88.4	87.1	72.0-127			1.45	20
(S) a,a,a-Trifluorotoluene(FID)				111	112	77.0-120				

L1393727-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-07 08/26/21 23:19 • (MS) R3697120-4 08/27/21 04:49 • (MSD) R3697120-5 08/27/21 05:11												
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPH (GC/FID) Low Fraction	5.50	0.0382	2.48	1.95	44.4	34.8	1	10.0-151			23.9	28
(S) a,a,a-Trifluorotoluene(FID)					102	104		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3698170-3 08/27/21 05:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3698170-3 08/27/21 05:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	U		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	109			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	96.1			70.0-130

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

(LCS) R3698170-1 08/27/21 04:12 • (LCSD) R3698170-2 08/27/21 04:31

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 %
Acetone	0.625	0.751	0.711	120	114	10.0-160			5.47	31
Acrylonitrile	0.625	0.650	0.631	104	101	45.0-153			2.97	22
Benzene	0.125	0.117	0.129	93.6	103	70.0-123			9.76	20
Bromobenzene	0.125	0.114	0.120	91.2	96.0	73.0-121			5.13	20
Bromodichloromethane	0.125	0.128	0.138	102	110	73.0-121			7.52	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3698170-1 08/27/21 04:12 • (LCSD) R3698170-2 08/27/21 04:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.130	0.132	104	106	64.0-132			1.53	20
Bromomethane	0.125	0.118	0.123	94.4	98.4	56.0-147			4.15	20
n-Butylbenzene	0.125	0.117	0.129	93.6	103	68.0-135			9.76	20
sec-Butylbenzene	0.125	0.121	0.138	96.8	110	74.0-130			13.1	20
tert-Butylbenzene	0.125	0.116	0.134	92.8	107	75.0-127			14.4	20
Carbon tetrachloride	0.125	0.123	0.139	98.4	111	66.0-128			12.2	20
Chlorobenzene	0.125	0.120	0.128	96.0	102	76.0-128			6.45	20
Chlorodibromomethane	0.125	0.129	0.132	103	106	74.0-127			2.30	20
Chloroethane	0.125	0.112	0.118	89.6	94.4	61.0-134			5.22	20
Chloroform	0.125	0.121	0.133	96.8	106	72.0-123			9.45	20
Chloromethane	0.125	0.105	0.118	84.0	94.4	51.0-138			11.7	20
2-Chlorotoluene	0.125	0.116	0.126	92.8	101	75.0-124			8.26	20
4-Chlorotoluene	0.125	0.114	0.123	91.2	98.4	75.0-124			7.59	20
1,2-Dibromo-3-Chloropropane	0.125	0.127	0.127	102	102	59.0-130			0.000	20
1,2-Dibromoethane	0.125	0.126	0.127	101	102	74.0-128			0.791	20
Dibromomethane	0.125	0.133	0.133	106	106	75.0-122			0.000	20
1,2-Dichlorobenzene	0.125	0.123	0.129	98.4	103	76.0-124			4.76	20
1,3-Dichlorobenzene	0.125	0.117	0.127	93.6	102	76.0-125			8.20	20
1,4-Dichlorobenzene	0.125	0.118	0.129	94.4	103	77.0-121			8.91	20
Dichlorodifluoromethane	0.125	0.125	0.132	100	106	43.0-156			5.45	20
1,1-Dichloroethane	0.125	0.121	0.132	96.8	106	70.0-127			8.70	20
1,2-Dichloroethane	0.125	0.126	0.133	101	106	65.0-131			5.41	20
1,1-Dichloroethene	0.125	0.115	0.123	92.0	98.4	65.0-131			6.72	20
cis-1,2-Dichloroethene	0.125	0.116	0.127	92.8	102	73.0-125			9.05	20
trans-1,2-Dichloroethene	0.125	0.118	0.128	94.4	102	71.0-125			8.13	20
1,2-Dichloropropane	0.125	0.128	0.134	102	107	74.0-125			4.58	20
1,1-Dichloropropene	0.125	0.129	0.139	103	111	73.0-125			7.46	20
1,3-Dichloropropane	0.125	0.118	0.122	94.4	97.6	80.0-125			3.33	20
cis-1,3-Dichloropropene	0.125	0.122	0.130	97.6	104	76.0-127			6.35	20
trans-1,3-Dichloropropene	0.125	0.123	0.125	98.4	100	73.0-127			1.61	20
2,2-Dichloropropane	0.125	0.126	0.142	101	114	59.0-135			11.9	20
Di-isopropyl ether	0.125	0.121	0.128	96.8	102	60.0-136			5.62	20
Ethylbenzene	0.125	0.124	0.133	99.2	106	74.0-126			7.00	20
Hexachloro-1,3-butadiene	0.125	0.132	0.152	106	122	57.0-150			14.1	20
Isopropylbenzene	0.125	0.124	0.137	99.2	110	72.0-127			9.96	20
p-Isopropyltoluene	0.125	0.120	0.137	96.0	110	72.0-133			13.2	20
2-Butanone (MEK)	0.625	0.680	0.698	109	112	30.0-160			2.61	24
Methylene Chloride	0.125	0.127	0.138	102	110	68.0-123			8.30	20
4-Methyl-2-pentanone (MIBK)	0.625	0.653	0.644	104	103	56.0-143			1.39	20
Methyl tert-butyl ether	0.125	0.118	0.120	94.4	96.0	66.0-132			1.68	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R3698170-1 08/27/21 04:12 • (LCSD) R3698170-2 08/27/21 04:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.134	0.145	107	116	59.0-130			7.89	20
n-Propylbenzene	0.125	0.114	0.130	91.2	104	74.0-126			13.1	20
Styrene	0.125	0.128	0.136	102	109	72.0-127			6.06	20
1,1,1,2-Tetrachloroethane	0.125	0.122	0.125	97.6	100	74.0-129			2.43	20
1,1,2,2-Tetrachloroethane	0.125	0.116	0.119	92.8	95.2	68.0-128			2.55	20
Tetrachloroethene	0.125	0.126	0.137	101	110	70.0-136			8.37	20
Toluene	0.125	0.115	0.124	92.0	99.2	75.0-121			7.53	20
1,1,2-Trichlorotrifluoroethane	0.125	0.117	0.121	93.6	96.8	61.0-139			3.36	20
1,2,3-Trichlorobenzene	0.125	0.139	0.152	111	122	59.0-139			8.93	20
1,2,4-Trichlorobenzene	0.125	0.135	0.159	108	127	62.0-137			16.3	20
1,1,1-Trichloroethane	0.125	0.117	0.133	93.6	106	69.0-126			12.8	20
1,1,2-Trichloroethane	0.125	0.126	0.124	101	99.2	78.0-123			1.60	20
Trichloroethene	0.125	0.125	0.138	100	110	76.0-126			9.89	20
Trichlorofluoromethane	0.125	0.135	0.101	108	80.8	61.0-142		J3	28.8	20
1,2,3-Trichloropropane	0.125	0.128	0.131	102	105	67.0-129			2.32	20
1,2,3-Trimethylbenzene	0.125	0.121	0.132	96.8	106	74.0-124			8.70	20
1,2,4-Trimethylbenzene	0.125	0.118	0.135	94.4	108	70.0-126			13.4	20
1,3,5-Trimethylbenzene	0.125	0.116	0.132	92.8	106	73.0-127			12.9	20
Vinyl chloride	0.125	0.108	0.106	86.4	84.8	63.0-134			1.87	20
Xylenes, Total	0.375	0.359	0.390	95.7	104	72.0-127			8.28	20
(S) Toluene-d8				101	101	75.0-131				
(S) 4-Bromofluorobenzene				107	103	67.0-138				
(S) 1,2-Dichloroethane-d4				106	107	70.0-130				

L1393718-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393718-02 08/27/21 12:11 • (MS) R3698170-4 08/27/21 12:31 • (MSD) R3698170-5 08/27/21 12:50

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acetone	4.64	U	6.72	7.13	175	185	8	10.0-160	J5	J5	5.92	40
Acrylonitrile	4.64	U	4.56	4.62	118	120	8	10.0-160			1.31	40
Benzene	0.926	U	0.355	0.387	46.1	50.3	8	10.0-149			8.63	37
Bromobenzene	0.926	U	0.480	0.514	62.3	66.8	8	10.0-156			6.84	38
Bromodichloromethane	0.926	U	0.510	0.585	66.2	76.0	8	10.0-143			13.7	37
Bromoform	0.926	U	0.681	0.703	88.4	91.3	8	10.0-146			3.18	36
Bromomethane	0.926	U	0.267	0.353	34.7	45.8	8	10.0-149			27.7	38
n-Butylbenzene	0.926	6.97	7.49	7.67	67.5	90.9	8	10.0-160			2.37	40
sec-Butylbenzene	0.926	2.46	2.40	2.53	0.000	9.09	8	10.0-159	J6	J6	5.27	39
tert-Butylbenzene	0.926	U	0.371	0.409	48.2	53.1	8	10.0-156			9.74	39

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1393718-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393718-02 08/27/21 12:11 • (MS) R3698170-4 08/27/21 12:31 • (MSD) R3698170-5 08/27/21 12:50

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.926	U	0.224	0.260	29.1	33.8	8	10.0-145			14.9	37
Chlorobenzene	0.926	U	0.414	0.450	53.8	58.4	8	10.0-152			8.33	39
Chlorodibromomethane	0.926	U	0.555	0.625	72.1	81.2	8	10.0-146			11.9	37
Chloroethane	0.926	U	0.218	0.272	28.3	35.3	8	10.0-146			22.0	40
Chloroform	0.926	U	0.750	0.830	97.4	108	8	10.0-146			10.1	37
Chloromethane	0.926	U	0.256	0.270	33.2	35.1	8	10.0-159			5.32	37
2-Chlorotoluene	0.926	U	0.385	0.722	50.0	93.8	8	10.0-159		J3	60.9	38
4-Chlorotoluene	0.926	U	0.413	0.474	53.6	61.6	8	10.0-155			13.8	39
1,2-Dibromo-3-Chloropropane	0.926	U	0.856	0.857	111	111	8	10.0-151			0.117	39
1,2-Dibromoethane	0.926	U	0.735	0.764	95.5	99.2	8	10.0-148			3.87	34
Dibromomethane	0.926	U	0.732	0.861	95.1	112	8	10.0-147			16.2	35
1,2-Dichlorobenzene	0.926	0.220	0.762	0.797	70.4	74.9	8	10.0-155			4.49	37
1,3-Dichlorobenzene	0.926	0.0665	0.526	0.566	59.7	64.9	8	10.0-153			7.33	38
1,4-Dichlorobenzene	0.926	0.0628	0.543	0.587	62.4	68.1	8	10.0-151			7.79	38
Dichlorodifluoromethane	0.926	U	0.128	0.140	16.6	18.2	8	10.0-160			8.96	35
1,1-Dichloroethane	0.926	U	0.396	0.430	51.4	55.8	8	10.0-147			8.23	37
1,2-Dichloroethane	0.926	U	0.584	0.568	75.8	73.8	8	10.0-148			2.78	35
1,1-Dichloroethene	0.926	U	0.198	0.245	25.7	31.8	8	10.0-155			21.2	37
cis-1,2-Dichloroethene	0.926	U	0.366	0.425	47.5	55.2	8	10.0-149			14.9	37
trans-1,2-Dichloroethene	0.926	U	0.283	0.310	36.8	40.3	8	10.0-150			9.11	37
1,2-Dichloropropane	0.926	U	0.747	0.454	97.0	59.0	8	10.0-148		J3	48.8	37
1,1-Dichloropropene	0.926	U	0.255	0.283	33.1	36.8	8	10.0-153			10.4	35
1,3-Dichloropropane	0.926	U	0.550	0.600	71.4	77.9	8	10.0-154			8.70	35
cis-1,3-Dichloropropene	0.926	U	0.503	0.543	65.3	70.5	8	10.0-151			7.65	37
trans-1,3-Dichloropropene	0.926	U	0.584	0.608	75.8	79.0	8	10.0-148			4.03	37
2,2-Dichloropropane	0.926	U	0.163	0.208	21.2	27.0	8	10.0-138			24.3	36
Di-isopropyl ether	0.926	U	0.468	0.512	60.8	66.5	8	10.0-147			8.98	36
Ethylbenzene	0.926	6.64	6.14	6.15	0.000	0.000	8	10.0-160	V	V	0.163	38
Hexachloro-1,3-butadiene	0.926	U	1.16	1.20	151	156	8	10.0-160			3.39	40
Isopropylbenzene	0.926	1.76	1.82	1.87	7.79	14.3	8	10.0-155	J6		2.71	38
p-Isopropyltoluene	0.926	1.29	1.51	1.58	28.6	37.7	8	10.0-160			4.53	40
2-Butanone (MEK)	4.64	U	8.84	9.86	230	256	8	10.0-160	J5	J5	10.9	40
Methylene Chloride	0.926	U	0.163	0.172	21.2	22.3	8	10.0-141			5.37	37
4-Methyl-2-pentanone (MIBK)	4.64	U	3.31	3.94	86.0	102	8	10.0-160			17.4	35
Methyl tert-butyl ether	0.926	U	0.589	0.621	76.5	80.6	8	11.0-147			5.29	35
Naphthalene	0.926	4.40	5.13	5.44	94.8	135	8	10.0-160	E	E	5.87	36
n-Propylbenzene	0.926	9.86	8.75	8.86	0.000	0.000	8	10.0-158	V	V	1.25	38
Styrene	0.926	U	0.492	0.528	63.9	68.6	8	10.0-160			7.06	40
1,1,1,2-Tetrachloroethane	0.926	U	0.414	0.425	53.8	55.2	8	10.0-149			2.62	39
1,1,2,2-Tetrachloroethane	0.926	U	0.415	0.441	53.9	57.3	8	10.0-160			6.07	35

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1393718-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393718-02 08/27/21 12:11 • (MS) R3698170-4 08/27/21 12:31 • (MSD) R3698170-5 08/27/21 12:50

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.926	U	0.269	0.304	34.9	39.5	8	10.0-156			12.2	39
Toluene	0.926	0.177	0.615	0.509	56.9	43.1	8	10.0-156			18.9	38
1,1,2-Trichlorotrifluoroethane	0.926	U	0.144	0.181	18.7	23.5	8	10.0-160			22.8	36
1,2,3-Trichlorobenzene	0.926	U	0.915	1.15	119	149	8	10.0-160			22.8	40
1,2,4-Trichlorobenzene	0.926	U	0.883	0.992	115	129	8	10.0-160			11.6	40
1,1,1-Trichloroethane	0.926	U	0.129	0.168	16.8	21.8	8	10.0-144			26.3	35
1,1,2-Trichloroethane	0.926	U	1.02	1.01	132	131	8	10.0-160			0.985	35
Trichloroethene	0.926	U	0.327	0.374	42.5	48.6	8	10.0-156			13.4	38
Trichlorofluoromethane	0.926	U	0.160	0.200	20.8	26.0	8	10.0-160			22.2	40
1,2,3-Trichloropropane	0.926	U	0.639	0.648	83.0	84.2	8	10.0-156			1.40	35
1,2,3-Trimethylbenzene	0.926	10.7	12.5	13.1	234	312	8	10.0-160	V	V	4.69	36
1,2,4-Trimethylbenzene	0.926	54.1	45.6	47.9	0.000	0.000	8	10.0-160	EV	EV	4.92	36
1,3,5-Trimethylbenzene	0.926	18.8	15.6	16.5	0.000	0.000	8	10.0-160	EV	EV	5.61	38
Vinyl chloride	0.926	U	0.207	0.235	26.9	30.5	8	10.0-160			12.7	37
Xylenes, Total	2.79	29.3	9.23	25.7	0.000	0.000	8	10.0-160	V	J3 V	94.3	38
(S) Toluene-d8					97.2	92.9	75.0-131					
(S) 4-Bromofluorobenzene					120	117	67.0-138					
(S) 1,2-Dichloroethane-d4					92.4	116	70.0-130					

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3699418-1 09/02/21 02:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	64.3			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3699418-2 09/02/21 02:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	27.6	55.2	50.0-150	
(S) o-Terphenyl			54.1	18.0-148	

L1393727-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-05 09/02/21 03:09 • (MS) R3699418-3 09/02/21 03:23 • (MSD) R3699418-4 09/02/21 03:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.2	U	25.2	30.3	51.2	60.8	1	50.0-150			18.4	20
(S) o-Terphenyl					46.5	52.6		18.0-148				

1
Cp

2
Tc

3
Ss

4
Cn

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Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3698251-2 08/29/21 17:55

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) Nitrobenzene-d5	79.5			14.0-149
(S) 2-Fluorobiphenyl	88.4			34.0-125
(S) p-Terphenyl-d14	107			23.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3698251-1 08/29/21 17:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0697	87.1	50.0-126	
Acenaphthene	0.0800	0.0691	86.4	50.0-120	
Acenaphthylene	0.0800	0.0746	93.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0698	87.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0617	77.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0623	77.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0595	74.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0652	81.5	49.0-125	
Chrysene	0.0800	0.0681	85.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0608	76.0	47.0-125	
Fluoranthene	0.0800	0.0696	87.0	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3698251-1 08/29/21 17:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0691	86.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0623	77.9	46.0-125	
Naphthalene	0.0800	0.0649	81.1	50.0-120	
Phenanthrene	0.0800	0.0645	80.6	47.0-120	
Pyrene	0.0800	0.0680	85.0	43.0-123	
1-Methylnaphthalene	0.0800	0.0687	85.9	51.0-121	
2-Methylnaphthalene	0.0800	0.0657	82.1	50.0-120	
2-Chloronaphthalene	0.0800	0.0658	82.3	50.0-120	
(S) Nitrobenzene-d5			79.7	14.0-149	
(S) 2-Fluorobiphenyl			85.1	34.0-125	
(S) p-Terphenyl-d14			101	23.0-120	

L1393727-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393727-01 08/29/21 18:13 • (MS) R3698251-3 08/29/21 18:31 • (MSD) R3698251-4 08/29/21 18:48

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 %
Anthracene	0.0756	U	0.0586	0.0545	77.5	69.2	1	10.0-145			7.25	30
Acenaphthene	0.0756	0.00361	0.0634	0.0604	79.1	72.1	1	14.0-127			4.85	27
Acenaphthylene	0.0756	U	0.0652	0.0625	86.2	79.3	1	21.0-124			4.23	25
Benzo(a)anthracene	0.0756	0.00254	0.0623	0.0590	79.0	71.6	1	10.0-139			5.44	30
Benzo(a)pyrene	0.0756	0.00300	0.0576	0.0546	72.2	65.5	1	10.0-141			5.35	31
Benzo(b)fluoranthene	0.0756	0.00637	0.0562	0.0537	65.9	60.1	1	10.0-140			4.55	36
Benzo(g,h,i)perylene	0.0756	0.00213	0.0532	0.0519	67.6	63.2	1	10.0-140			2.47	33
Benzo(k)fluoranthene	0.0756	U	0.0572	0.0532	75.7	67.5	1	10.0-137			7.25	31
Chrysene	0.0756	0.00436	0.0648	0.0598	79.9	70.4	1	10.0-145			8.03	30
Dibenz(a,h)anthracene	0.0756	U	0.0536	0.0505	70.9	64.1	1	10.0-132			5.96	31
Fluoranthene	0.0756	0.00389	0.0646	0.0600	80.3	71.2	1	10.0-153			7.38	33
Fluorene	0.0756	0.0138	0.0772	0.0723	83.9	74.2	1	11.0-130			6.56	29
Indeno(1,2,3-cd)pyrene	0.0756	0.00226	0.0554	0.0519	70.3	63.0	1	10.0-137			6.52	32
Naphthalene	0.0756	0.0133	0.0731	0.0654	79.1	66.1	1	10.0-135			11.1	27
Phenanthrene	0.0756	0.0311	0.0999	0.0855	91.0	69.0	1	10.0-144			15.5	31
Pyrene	0.0756	0.00620	0.0639	0.0594	76.3	67.5	1	10.0-148			7.30	35
1-Methylnaphthalene	0.0756	0.0755	0.148	0.122	95.9	59.0	1	10.0-142			19.3	28
2-Methylnaphthalene	0.0756	0.0535	0.121	0.102	89.3	61.5	1	10.0-137			17.0	28
2-Chloronaphthalene	0.0756	U	0.0570	0.0545	75.4	69.2	1	29.0-120			4.48	24
(S) Nitrobenzene-d5					79.2	68.6		14.0-149				
(S) 2-Fluorobiphenyl					78.3	72.8		34.0-125				
(S) p-Terphenyl-d14					92.3	84.3		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

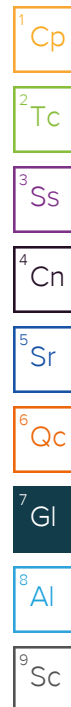
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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.



Environmental
Works, Inc.
Louisville, CO

Billing Information:

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



SDG #

B160

Table

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

Remarks

Sample # (lab only)

Report to:

Adam Kubat

Email To:

akubat@environmentalworks.com

Project Description:

Hail - Taproot

City/State
Collected:

CO

Please Circle:

PT MT CT ET

Phone:

507-475-2825

Client Project #

212509

Lab Project #

Collected by (print):

Site/Facility ID #

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

Standard

Immediately

Packed on Ice N Y X

No.
of
Cntrs

Sample ID

Comp/Grab

Matrix*

Depth

Date

Time

No.
of
Cntrs

SW-01

SW-01

8-20-21

1100

3

SW-02

1110

SW-03

1120

SW-04

1130

SW-05

1140

SW-06

1150

SW-07

1200

SW-08

1210

FS-01

1050

* 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 #

5217 3300 1166

pH

Temp

Flow

Other

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:

Time:

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

Environmental Works Inc

Sample Delivery Group: L1409403
Samples Received: 09/25/2021
Project Number: 212509-C1
Description: Taproot Hale Release

Report To: Adam Kubat
1301 Courtesy Road
Louisville, CO 80027

Entire Report Reviewed By:



Chris Ward
Project Manager

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

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

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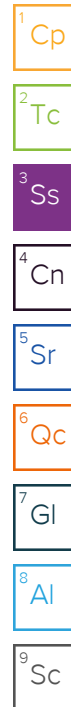


SAMPLE SUMMARY

SS1 L1409403-01 Solid

Collected by Adam Kubat
Collected date/time 09/24/21 10:00
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749764	1	10/04/21 18:22	10/04/21 18:22	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:28	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1752135	1	10/06/21 08:00	10/06/21 10:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1750570	1	10/03/21 16:17	10/03/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750155	1	10/04/21 05:55	10/05/21 11:24	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749750	1	10/03/21 15:22	10/05/21 12:32	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750159	5	10/04/21 05:57	10/04/21 17:19	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/29/21 16:40	10/05/21 01:55	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749218	1	09/29/21 16:40	09/30/21 20:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751649	1	10/06/21 10:39	10/06/21 19:49	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752632	1	10/07/21 01:11	10/07/21 07:25	LEA	Mt. Juliet, TN



SS2 L1409403-02 Solid

Collected by Adam Kubat
Collected date/time 09/24/21 10:10
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749764	1	10/04/21 18:25	10/04/21 18:25	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:33	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1752135	1	10/06/21 08:00	10/06/21 10:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1750570	1	10/03/21 16:17	10/03/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750155	1	10/04/21 05:55	10/05/21 11:37	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749750	1	10/03/21 15:22	10/05/21 12:35	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750159	5	10/04/21 05:57	10/04/21 17:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/29/21 16:40	10/05/21 02:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749218	1	09/29/21 16:40	09/30/21 21:06	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751649	1	10/06/21 10:39	10/06/21 19:36	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752632	1	10/07/21 01:11	10/07/21 07:45	LEA	Mt. Juliet, TN

SS3 L1409403-03 Solid

Collected by Adam Kubat
Collected date/time 09/24/21 10:20
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749764	1	10/04/21 18:28	10/04/21 18:28	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:39	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1752135	1	10/06/21 08:00	10/06/21 10:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1750570	1	10/03/21 16:17	10/03/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750155	1	10/04/21 05:55	10/05/21 11:40	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749750	1	10/03/21 15:22	10/05/21 12:37	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750159	5	10/04/21 05:57	10/04/21 17:40	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/29/21 16:40	10/05/21 02:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749218	1	09/29/21 16:40	09/30/21 21:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751649	1	10/06/21 10:39	10/06/21 19:23	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752632	1	10/07/21 01:11	10/07/21 08:05	LEA	Mt. Juliet, TN

SS4 L1409403-04 Solid

Collected by Adam Kubat
Collected date/time 09/24/21 10:30
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749764	1	10/04/21 18:31	10/04/21 18:31	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:44	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1752135	1	10/06/21 08:00	10/06/21 10:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1750570	1	10/03/21 16:17	10/03/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750155	1	10/04/21 05:55	10/05/21 11:43	CCE	Mt. Juliet, TN

SAMPLE SUMMARY

SS4 L1409403-04 Solid

Collected by
Adam Kubat

Collected date/time
09/24/21 10:30

Received date/time
09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749750	1	10/03/21 15:22	10/05/21 12:40	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750159	5	10/04/21 05:57	10/04/21 17:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/29/21 16:40	10/05/21 03:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749218	1	09/29/21 16:40	09/30/21 21:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751649	1	10/06/21 10:39	10/06/21 20:01	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752632	1	10/07/21 01:11	10/07/21 08:25	LEA	Mt. Juliet, TN

SW9 L1409403-05 Solid

Collected by
Adam Kubat

Collected date/time
09/24/21 10:40

Received date/time
09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749764	1	10/04/21 18:34	10/04/21 18:34	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:49	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1752135	1	10/06/21 08:00	10/06/21 10:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1750570	1	10/03/21 16:17	10/03/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750155	1	10/04/21 05:55	10/05/21 11:51	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749750	1	10/03/21 15:22	10/05/21 12:43	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750159	5	10/04/21 05:57	10/04/21 18:00	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/29/21 16:40	10/05/21 03:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749218	1	09/29/21 16:40	09/30/21 22:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751649	1	10/06/21 10:39	10/06/21 18:59	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752632	1	10/07/21 01:11	10/07/21 08:46	LEA	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

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



Chris Ward
Project Manager



SS1

Collected date/time: 09/24/21 10:00

SAMPLE RESULTS - 01

L1409403

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.20		1	10/04/2021 18:22	WG1749764

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/04/2021 17:28	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.13	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409403-01 WG1752135: 8.13 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	575		10.0	1	10/03/2021 19:43	WG1750570

Sample Narrative:

L1409403-01 WG1750570: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	315	J6 O1	0.0852	0.500	1	10/05/2021 11:24	WG1750155
Cadmium	0.257	J	0.0471	0.500	1	10/05/2021 11:24	WG1750155
Copper	11.3		0.400	2.00	1	10/05/2021 11:24	WG1750155
Lead	11.5		0.208	0.500	1	10/05/2021 11:24	WG1750155
Nickel	10.1		0.132	2.00	1	10/05/2021 11:24	WG1750155
Selenium	U		0.764	2.00	1	10/05/2021 11:24	WG1750155
Silver	U	O1	0.127	1.00	1	10/05/2021 11:24	WG1750155
Zinc	38.7	O1	0.832	5.00	1	10/05/2021 11:24	WG1750155

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

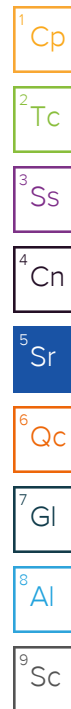
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.511		0.0167	0.200	1	10/05/2021 12:32	WG1749750

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.52	O1	0.100	1.00	5	10/04/2021 17:19	WG1750159

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	10/05/2021 01:55	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	101			77.0-120		10/05/2021 01:55	WG1751334



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	09/30/2021 20:48	WG1749218
Toluene	U		0.00130	0.00500	1	09/30/2021 20:48	WG1749218
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 20:48	WG1749218
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 20:48	WG1749218
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 20:48	WG1749218
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 20:48	WG1749218
(S) Toluene-d8	110			75.0-131		09/30/2021 20:48	WG1749218
(S) 4-Bromofluorobenzene	100			67.0-138		09/30/2021 20:48	WG1749218
(S) 1,2-Dichloroethane-d4	89.9			70.0-130		09/30/2021 20:48	WG1749218

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	8.62	J4	1.61	4.00	1	10/06/2021 19:49	WG1751649
C28-C36 Motor Oil Range	18.0		0.274	4.00	1	10/06/2021 19:49	WG1751649
(S) o-Terphenyl	45.3			18.0-148		10/06/2021 19:49	WG1751649

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	10/07/2021 07:25	WG1752632
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 07:25	WG1752632
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 07:25	WG1752632
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 07:25	WG1752632
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 07:25	WG1752632
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 07:25	WG1752632
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 07:25	WG1752632
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 07:25	WG1752632
Chrysene	U		0.00232	0.00600	1	10/07/2021 07:25	WG1752632
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 07:25	WG1752632
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 07:25	WG1752632
Fluorene	U		0.00205	0.00600	1	10/07/2021 07:25	WG1752632
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 07:25	WG1752632
Naphthalene	U		0.00408	0.0200	1	10/07/2021 07:25	WG1752632
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 07:25	WG1752632
Pyrene	U		0.00200	0.00600	1	10/07/2021 07:25	WG1752632
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 07:25	WG1752632
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 07:25	WG1752632
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 07:25	WG1752632
(S) p-Terphenyl-d14	78.1			23.0-120		10/07/2021 07:25	WG1752632
(S) Nitrobenzene-d5	48.1			14.0-149		10/07/2021 07:25	WG1752632
(S) 2-Fluorobiphenyl	61.0			34.0-125		10/07/2021 07:25	WG1752632

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	3.29		1	10/04/2021 18:25	WG1749764

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/04/2021 17:33	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.03	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409403-02 WG1752135: 8.03 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1100		10.0	1	10/03/2021 19:43	WG1750570

Sample Narrative:

L1409403-02 WG1750570: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	301		0.0852	0.500	1	10/05/2021 11:37	WG1750155
Cadmium	0.301	J	0.0471	0.500	1	10/05/2021 11:37	WG1750155
Copper	12.5		0.400	2.00	1	10/05/2021 11:37	WG1750155
Lead	10.6		0.208	0.500	1	10/05/2021 11:37	WG1750155
Nickel	11.6		0.132	2.00	1	10/05/2021 11:37	WG1750155
Selenium	U		0.764	2.00	1	10/05/2021 11:37	WG1750155
Silver	U		0.127	1.00	1	10/05/2021 11:37	WG1750155
Zinc	43.3		0.832	5.00	1	10/05/2021 11:37	WG1750155

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.332		0.0167	0.200	1	10/05/2021 12:35	WG1749750

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.20		0.100	1.00	5	10/04/2021 17:37	WG1750159

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	10/05/2021 02:19	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	104			77.0-120		10/05/2021 02:19	WG1751334

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	09/30/2021 21:06	WG1749218
Toluene	U		0.00130	0.00500	1	09/30/2021 21:06	WG1749218
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 21:06	WG1749218
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 21:06	WG1749218
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 21:06	WG1749218
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 21:06	WG1749218
(S) Toluene-d8	109			75.0-131		09/30/2021 21:06	WG1749218
(S) 4-Bromofluorobenzene	103			67.0-138		09/30/2021 21:06	WG1749218
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		09/30/2021 21:06	WG1749218

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.01	J4	1.61	4.00	1	10/06/2021 19:36	WG1751649
C28-C36 Motor Oil Range	14.9		0.274	4.00	1	10/06/2021 19:36	WG1751649
(S) o-Terphenyl	54.6			18.0-148		10/06/2021 19:36	WG1751649

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	10/07/2021 07:45	WG1752632
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 07:45	WG1752632
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 07:45	WG1752632
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 07:45	WG1752632
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 07:45	WG1752632
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 07:45	WG1752632
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 07:45	WG1752632
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 07:45	WG1752632
Chrysene	U		0.00232	0.00600	1	10/07/2021 07:45	WG1752632
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 07:45	WG1752632
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 07:45	WG1752632
Fluorene	U		0.00205	0.00600	1	10/07/2021 07:45	WG1752632
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 07:45	WG1752632
Naphthalene	U		0.00408	0.0200	1	10/07/2021 07:45	WG1752632
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 07:45	WG1752632
Pyrene	U		0.00200	0.00600	1	10/07/2021 07:45	WG1752632
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 07:45	WG1752632
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 07:45	WG1752632
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 07:45	WG1752632
(S) p-Terphenyl-d14	96.4			23.0-120		10/07/2021 07:45	WG1752632
(S) Nitrobenzene-d5	55.0			14.0-149		10/07/2021 07:45	WG1752632
(S) 2-Fluorobiphenyl	69.8			34.0-125		10/07/2021 07:45	WG1752632

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	0.517		1	10/04/2021 18:28	WG1749764

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/04/2021 17:39	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.97	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409403-03 WG1752135: 7.97 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	250		10.0	1	10/03/2021 19:43	WG1750570

Sample Narrative:

L1409403-03 WG1750570: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	184		0.0852	0.500	1	10/05/2021 11:40	WG1750155
Cadmium	0.330	J	0.0471	0.500	1	10/05/2021 11:40	WG1750155
Copper	12.5		0.400	2.00	1	10/05/2021 11:40	WG1750155
Lead	10.1		0.208	0.500	1	10/05/2021 11:40	WG1750155
Nickel	11.2		0.132	2.00	1	10/05/2021 11:40	WG1750155
Selenium	U		0.764	2.00	1	10/05/2021 11:40	WG1750155
Silver	U		0.127	1.00	1	10/05/2021 11:40	WG1750155
Zinc	44.0		0.832	5.00	1	10/05/2021 11:40	WG1750155

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

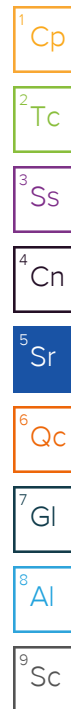
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.139	J	0.0167	0.200	1	10/05/2021 12:37	WG1749750

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.41		0.100	1.00	5	10/04/2021 17:40	WG1750159

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	10/05/2021 02:43	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100			77.0-120		10/05/2021 02:43	WG1751334



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	09/30/2021 21:25	WG1749218
Toluene	U		0.00130	0.00500	1	09/30/2021 21:25	WG1749218
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 21:25	WG1749218
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 21:25	WG1749218
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 21:25	WG1749218
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 21:25	WG1749218
(S) Toluene-d8	112			75.0-131		09/30/2021 21:25	WG1749218
(S) 4-Bromofluorobenzene	101			67.0-138		09/30/2021 21:25	WG1749218
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		09/30/2021 21:25	WG1749218

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.24	J4	1.61	4.00	1	10/06/2021 19:23	WG1751649
C28-C36 Motor Oil Range	16.4		0.274	4.00	1	10/06/2021 19:23	WG1751649
(S) o-Terphenyl	59.6			18.0-148		10/06/2021 19:23	WG1751649

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	10/07/2021 08:05	WG1752632
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 08:05	WG1752632
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 08:05	WG1752632
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 08:05	WG1752632
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 08:05	WG1752632
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 08:05	WG1752632
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 08:05	WG1752632
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 08:05	WG1752632
Chrysene	U		0.00232	0.00600	1	10/07/2021 08:05	WG1752632
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 08:05	WG1752632
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 08:05	WG1752632
Fluorene	U		0.00205	0.00600	1	10/07/2021 08:05	WG1752632
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 08:05	WG1752632
Naphthalene	U		0.00408	0.0200	1	10/07/2021 08:05	WG1752632
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 08:05	WG1752632
Pyrene	U		0.00200	0.00600	1	10/07/2021 08:05	WG1752632
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 08:05	WG1752632
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 08:05	WG1752632
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 08:05	WG1752632
(S) p-Terphenyl-d14	90.2			23.0-120		10/07/2021 08:05	WG1752632
(S) Nitrobenzene-d5	61.5			14.0-149		10/07/2021 08:05	WG1752632
(S) 2-Fluorobiphenyl	74.2			34.0-125		10/07/2021 08:05	WG1752632

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.08		1	10/04/2021 18:31	WG1749764

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/04/2021 17:44	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.79	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409403-04 WG1752135: 7.79 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1600		10.0	1	10/03/2021 19:43	WG1750570

Sample Narrative:

L1409403-04 WG1750570: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	247		0.0852	0.500	1	10/05/2021 11:43	WG1750155
Cadmium	0.282	J	0.0471	0.500	1	10/05/2021 11:43	WG1750155
Copper	12.5		0.400	2.00	1	10/05/2021 11:43	WG1750155
Lead	19.2		0.208	0.500	1	10/05/2021 11:43	WG1750155
Nickel	11.4		0.132	2.00	1	10/05/2021 11:43	WG1750155
Selenium	U		0.764	2.00	1	10/05/2021 11:43	WG1750155
Silver	U		0.127	1.00	1	10/05/2021 11:43	WG1750155
Zinc	43.0		0.832	5.00	1	10/05/2021 11:43	WG1750155

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.133	J	0.0167	0.200	1	10/05/2021 12:40	WG1749750

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.13		0.100	1.00	5	10/04/2021 17:44	WG1750159

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	10/05/2021 03:07	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.4			77.0-120		10/05/2021 03:07	WG1751334

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	09/30/2021 21:44	WG1749218
Toluene	U		0.00130	0.00500	1	09/30/2021 21:44	WG1749218
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 21:44	WG1749218
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 21:44	WG1749218
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 21:44	WG1749218
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 21:44	WG1749218
(S) Toluene-d8	111			75.0-131		09/30/2021 21:44	WG1749218
(S) 4-Bromofluorobenzene	99.4			67.0-138		09/30/2021 21:44	WG1749218
(S) 1,2-Dichloroethane-d4	91.2			70.0-130		09/30/2021 21:44	WG1749218

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.22	J4	1.61	4.00	1	10/06/2021 20:01	WG1751649
C28-C36 Motor Oil Range	10.6		0.274	4.00	1	10/06/2021 20:01	WG1751649
(S) o-Terphenyl	47.5			18.0-148		10/06/2021 20:01	WG1751649

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	10/07/2021 08:25	WG1752632
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 08:25	WG1752632
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 08:25	WG1752632
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 08:25	WG1752632
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 08:25	WG1752632
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 08:25	WG1752632
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 08:25	WG1752632
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 08:25	WG1752632
Chrysene	U		0.00232	0.00600	1	10/07/2021 08:25	WG1752632
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 08:25	WG1752632
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 08:25	WG1752632
Fluorene	U		0.00205	0.00600	1	10/07/2021 08:25	WG1752632
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 08:25	WG1752632
Naphthalene	U		0.00408	0.0200	1	10/07/2021 08:25	WG1752632
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 08:25	WG1752632
Pyrene	U		0.00200	0.00600	1	10/07/2021 08:25	WG1752632
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 08:25	WG1752632
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 08:25	WG1752632
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 08:25	WG1752632
(S) p-Terphenyl-d14	87.1			23.0-120		10/07/2021 08:25	WG1752632
(S) Nitrobenzene-d5	53.6			14.0-149		10/07/2021 08:25	WG1752632
(S) 2-Fluorobiphenyl	65.6			34.0-125		10/07/2021 08:25	WG1752632

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.64		1	10/04/2021 18:34	WG1749764

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/04/2021 17:49	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.70	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409403-05 WG1752135: 8.7 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	291		10.0	1	10/03/2021 19:43	WG1750570

Sample Narrative:

L1409403-05 WG1750570: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	147		0.0852	0.500	1	10/05/2021 11:51	WG1750155
Cadmium	0.309	J	0.0471	0.500	1	10/05/2021 11:51	WG1750155
Copper	12.3		0.400	2.00	1	10/05/2021 11:51	WG1750155
Lead	9.65		0.208	0.500	1	10/05/2021 11:51	WG1750155
Nickel	11.7		0.132	2.00	1	10/05/2021 11:51	WG1750155
Selenium	U		0.764	2.00	1	10/05/2021 11:51	WG1750155
Silver	U		0.127	1.00	1	10/05/2021 11:51	WG1750155
Zinc	41.3		0.832	5.00	1	10/05/2021 11:51	WG1750155

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.235		0.0167	0.200	1	10/05/2021 12:43	WG1749750

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.50		0.100	1.00	5	10/04/2021 18:00	WG1750159

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0217	0.100	1	10/05/2021 03:31	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102			77.0-120		10/05/2021 03:31	WG1751334

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	09/30/2021 22:04	WG1749218
Toluene	U		0.00130	0.00500	1	09/30/2021 22:04	WG1749218
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 22:04	WG1749218
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 22:04	WG1749218
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 22:04	WG1749218
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 22:04	WG1749218
(S) Toluene-d8	110			75.0-131		09/30/2021 22:04	WG1749218
(S) 4-Bromofluorobenzene	100			67.0-138		09/30/2021 22:04	WG1749218
(S) 1,2-Dichloroethane-d4	94.1			70.0-130		09/30/2021 22:04	WG1749218

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.53	J J4	1.61	4.00	1	10/06/2021 18:59	WG1751649
C28-C36 Motor Oil Range	8.65		0.274	4.00	1	10/06/2021 18:59	WG1751649
(S) o-Terphenyl	65.2			18.0-148		10/06/2021 18:59	WG1751649

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00230	0.00600	1	10/07/2021 08:46	WG1752632
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 08:46	WG1752632
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 08:46	WG1752632
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 08:46	WG1752632
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 08:46	WG1752632
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 08:46	WG1752632
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 08:46	WG1752632
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 08:46	WG1752632
Chrysene	U		0.00232	0.00600	1	10/07/2021 08:46	WG1752632
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 08:46	WG1752632
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 08:46	WG1752632
Fluorene	U		0.00205	0.00600	1	10/07/2021 08:46	WG1752632
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 08:46	WG1752632
Naphthalene	U		0.00408	0.0200	1	10/07/2021 08:46	WG1752632
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 08:46	WG1752632
Pyrene	U		0.00200	0.00600	1	10/07/2021 08:46	WG1752632
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 08:46	WG1752632
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 08:46	WG1752632
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 08:46	WG1752632
(S) p-Terphenyl-d14	86.6			23.0-120		10/07/2021 08:46	WG1752632
(S) Nitrobenzene-d5	54.0			14.0-149		10/07/2021 08:46	WG1752632
(S) 2-Fluorobiphenyl	67.5			34.0-125		10/07/2021 08:46	WG1752632

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3712224-1 10/04/21 13:52

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

L1409347-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1409347-01 10/04/21 15:15 • (DUP) R3712224-7 10/04/21 15:20

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

L1409271-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1409271-03 10/04/21 17:07 • (DUP) R3712224-9 10/04/21 17:13

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	1.25	1.07	1	15.8		20

Laboratory Control Sample (LCS)

(LCS) R3712224-2 10/04/21 13:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.19	91.9	80.0-120	

L1408814-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408814-01 10/04/21 14:08 • (MS) R3712224-3 10/04/21 14:13 • (MSD) R3712224-4 10/04/21 14:18

	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	U	15.1	17.1	75.7	85.7	1	75.0-125			12.3	20

L1408814-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1408814-01 10/04/21 14:08 • (MS) R3712224-5 10/04/21 14:23

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	638	U	573	89.8	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1409348-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1409348-15 10/06/21 10:00 • (DUP) R3712976-2 10/06/21 10:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.45	8.42	1	0.356		1

Sample Narrative:

OS: 8.45 at 20.4C

DUP: 8.42 at 20.5C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1409403-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1409403-05 10/06/21 10:00 • (DUP) R3712976-3 10/06/21 10:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.70	8.67	1	0.345		1

Sample Narrative:

OS: 8.7 at 20.2C

DUP: 8.67 at 20.2C

Laboratory Control Sample (LCS)

(LCS) R3712976-1 10/06/21 10:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.05 at 20.3C

Method Blank (MB)

(MB) R3711839-1 10/03/21 19:43

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

L1409431-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1409431-09 10/03/21 19:43 • (DUP) R3711839-3 10/03/21 19:43

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	9950	9960	1	0.100		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1410191-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1410191-03 10/03/21 19:43 • (DUP) R3711839-4 10/03/21 19:43

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	398	397	1	0.252		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3711839-2 10/03/21 19:43

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	273	102	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3712596-1 10/05/21 11:18

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3712596-2 10/05/21 11:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	103	103	80.0-120	
Cadmium	100	95.8	95.8	80.0-120	
Copper	100	99.0	99.0	80.0-120	
Lead	100	98.3	98.3	80.0-120	
Nickel	100	99.8	99.8	80.0-120	
Selenium	100	97.9	97.9	80.0-120	
Silver	20.0	17.6	87.8	80.0-120	
Zinc	100	97.2	97.2	80.0-120	

L1409403-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409403-01 10/05/21 11:24 • (MS) R3712596-5 10/05/21 11:32 • (MSD) R3712596-6 10/05/21 11:35

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	315	371	392	56.5	77.4	1	75.0-125	J6		5.49	20
Cadmium	100	0.257	87.5	93.7	87.2	93.4	1	75.0-125			6.88	20
Copper	100	11.3	102	109	90.5	97.4	1	75.0-125			6.51	20
Lead	100	11.5	101	108	89.9	96.2	1	75.0-125			6.04	20
Nickel	100	10.1	104	112	93.8	102	1	75.0-125			7.55	20
Selenium	100	U	88.8	94.9	88.8	94.9	1	75.0-125			6.66	20
Silver	20.0	U	16.4	17.5	82.0	87.6	1	75.0-125			6.61	20
Zinc	100	38.7	120	127	81.0	88.1	1	75.0-125			5.72	20

Method Blank (MB)

(MB) R3712597-1 10/05/21 12:24

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

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

(LCS) R3712597-2 10/05/21 12:27 • (LCSD) R3712597-3 10/05/21 12:29

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Hot Water Sol. Boron	1.00	0.942	1.01	94.2	101	80.0-120			6.57	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3712249-1 10/04/21 17:12

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

Laboratory Control Sample (LCS)

(LCS) R3712249-2 10/04/21 17:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	96.7	96.7	80.0-120	

L1409403-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409403-01 10/04/21 17:19 • (MS) R3712249-5 10/04/21 17:30 • (MSD) R3712249-6 10/04/21 17:33

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	3.52	94.2	98.0	90.7	94.4	5	75.0-125			3.88	20

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3714525-2 10/04/21 23:55

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)	102			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3714525-1 10/04/21 20:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.73	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3712075-3 09/30/21 20:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	110			75.0-131
(S) 4-Bromofluorobenzene	99.7			67.0-138
(S) 1,2-Dichloroethane-d4	90.2			70.0-130

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

(LCS) R3712075-1 09/30/21 19:15 • (LCSD) R3712075-2 09/30/21 19:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.121	0.125	96.8	100	70.0-123			3.25	20
Ethylbenzene	0.125	0.124	0.128	99.2	102	74.0-126			3.17	20
Toluene	0.125	0.126	0.132	101	106	75.0-121			4.65	20
1,2,4-Trimethylbenzene	0.125	0.120	0.122	96.0	97.6	70.0-126			1.65	20
1,3,5-Trimethylbenzene	0.125	0.128	0.129	102	103	73.0-127			0.778	20
Xylenes, Total	0.375	0.369	0.387	98.4	103	72.0-127			4.76	20
(S) Toluene-d8				108	109	75.0-131				
(S) 4-Bromofluorobenzene				100	99.7	67.0-138				
(S) 1,2-Dichloroethane-d4				97.1	97.3	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3713515-1 10/06/21 14:29

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	36.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3713515-2 10/06/21 14:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	22.2	44.4	50.0-150	J4
(S) o-Terphenyl			84.8	18.0-148	

L1409403-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409403-04 10/06/21 20:01 • (MS) R3713515-3 10/06/21 20:13 • (MSD) R3713515-4 10/06/21 20:26

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	48.8	4.22	29.0	32.0	50.8	57.6	1	50.0-150			9.84	20
(S) o-Terphenyl					56.2	59.3		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3713757-2 10/07/21 07:05

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) Nitrobenzene-d5	65.6			14.0-149
(S) 2-Fluorobiphenyl	87.2			34.0-125
(S) p-Terphenyl-d14	122	J1		23.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3713757-1 10/07/21 06:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0630	78.8	50.0-126	
Acenaphthene	0.0800	0.0646	80.7	50.0-120	
Acenaphthylene	0.0800	0.0667	83.4	50.0-120	
Benzo(a)anthracene	0.0800	0.0642	80.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0524	65.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0692	86.5	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0691	86.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0671	83.9	49.0-125	
Chrysene	0.0800	0.0675	84.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0618	77.3	47.0-125	
Fluoranthene	0.0800	0.0710	88.8	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3713757-1 10/07/21 06:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0667	83.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0625	78.1	46.0-125	
Naphthalene	0.0800	0.0608	76.0	50.0-120	
Phenanthrene	0.0800	0.0667	83.4	47.0-120	
Pyrene	0.0800	0.0832	104	43.0-123	
1-Methylnaphthalene	0.0800	0.0653	81.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0621	77.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0625	78.1	50.0-120	
(S) Nitrobenzene-d5			66.9	14.0-149	
(S) 2-Fluorobiphenyl			85.6	34.0-125	
(S) p-Terphenyl-d14			107	23.0-120	

L1409451-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409451-03 10/07/21 10:46 • (MS) R3713757-3 10/07/21 11:06 • (MSD) R3713757-4 10/07/21 11:26

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	0.0784	U	0.0709	0.0791	90.4	101	1	10.0-145			10.9	30
Acenaphthene	0.0784	U	0.0808	0.0812	103	104	1	14.0-127			0.494	27
Acenaphthylene	0.0784	U	0.0715	0.0720	91.2	91.8	1	21.0-124			0.697	25
Benzo(a)anthracene	0.0784	U	0.0635	0.0650	81.0	82.9	1	10.0-139			2.33	30
Benzo(a)pyrene	0.0784	U	0.0673	0.0687	85.8	87.6	1	10.0-141			2.06	31
Benzo(b)fluoranthene	0.0784	U	0.0760	0.0780	96.9	99.5	1	10.0-140			2.60	36
Benzo(g,h,i)perylene	0.0784	U	0.0503	0.0515	64.2	65.7	1	10.0-140			2.36	33
Benzo(k)fluoranthene	0.0784	U	0.0584	0.0605	74.5	77.2	1	10.0-137			3.53	31
Chrysene	0.0784	U	0.0534	0.0540	68.1	68.9	1	10.0-145			1.12	30
Dibenz(a,h)anthracene	0.0784	U	0.0496	0.0502	63.3	64.0	1	10.0-132			1.20	31
Fluoranthene	0.0784	0.0108	0.0731	0.0741	79.5	80.7	1	10.0-153			1.36	33
Fluorene	0.0784	0.0484	0.105	0.107	72.2	74.7	1	11.0-130			1.89	29
Indeno(1,2,3-cd)pyrene	0.0784	U	0.0538	0.0550	68.6	70.2	1	10.0-137			2.21	32
Naphthalene	0.0784	0.00703	0.0672	0.0655	76.7	74.6	1	10.0-135			2.56	27
Phenanthrene	0.0784	U	0.150	0.163	191	208	1	10.0-144	J5	J5	8.31	31
Pyrene	0.0784	0.0361	0.0811	0.0832	57.4	60.1	1	10.0-148			2.56	35
1-Methylnaphthalene	0.0784	0.0512	0.119	0.122	86.5	90.3	1	10.0-142			2.49	28
2-Methylnaphthalene	0.0784	0.0378	0.109	0.113	90.8	95.9	1	10.0-137			3.60	28
2-Chloronaphthalene	0.0784	U	0.0462	0.0463	58.9	59.1	1	29.0-120			0.216	24
(S) Nitrobenzene-d5					0.000	0.000		14.0-149	J2	J2		
(S) 2-Fluorobiphenyl					67.2	69.5		34.0-125				
(S) p-Terphenyl-d14					76.0	79.4		23.0-120				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

L1409451-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409451-03 10/07/21 10:46 • (MS) R3713757-3 10/07/21 11:06 • (MSD) R3713757-4 10/07/21 11:26

	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	%	%		%			%	%

Sample Narrative:
OS: Surrogate failure due to matrix interference

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

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GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

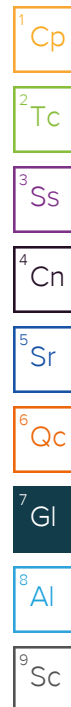
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
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.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.



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.



