

Environmental Works Inc

Sample Delivery Group: L1393555
Samples Received: 08/21/2021
Project Number:
Description: Boomslang
Site: BOOMSLANG
Report To: Adam Kubat
1301 Courtesy Road
Louisville, CO 80027

Entire Report Reviewed By:



Chris Ward
Project Manager

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

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
SW-1 L1393555-01	7
SW-2 L1393555-02	10
SW-3 L1393555-03	13
SW-4 L1393555-04	16
BS-1 L1393555-05	19
FS-1 L1393555-06	22
SW-5 L1393555-07	25
Qc: Quality Control Summary	28
Wet Chemistry by Method 7199	28
Wet Chemistry by Method 9045D	29
Wet Chemistry by Method 9050AMod	30
Metals (ICP) by Method 6010B	31
Metals (ICP) by Method 6010B-NE493 Ch 2	32
Metals (ICPMS) by Method 6020	33
Volatile Organic Compounds (GC) by Method 8015D/GRO	34
Volatile Organic Compounds (GC/MS) by Method 8260B	35
Semi-Volatile Organic Compounds (GC) by Method 8015M	41
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	42
Gl: Glossary of Terms	44
Al: Accreditations & Locations	45
Sc: Sample Chain of Custody	46

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

SAMPLE SUMMARY

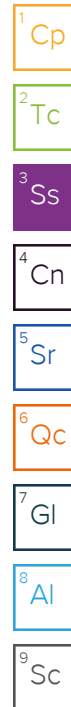
SW-1 L1393555-01 Solid

Collected by
Collected date/time
Received date/time

08/20/21 09:47

08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 11:56	08/26/21 11:56	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 09:43	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:38	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 00:51	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:13	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 07:44	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 19:13	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 16:58	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 00:49	AAT	Mt. Juliet, TN



SW-2 L1393555-02 Solid

Collected by
Collected date/time
Received date/time

08/20/21 09:52

08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 11:58	08/26/21 11:58	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 09:53	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:40	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 00:54	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:17	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 08:08	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 19:32	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 15:36	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 01:06	AAT	Mt. Juliet, TN

SW-3 L1393555-03 Solid

Collected by
Collected date/time
Received date/time

08/20/21 09:55

08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 12:01	08/26/21 12:01	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 09:58	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:44	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 00:57	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:20	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 08:32	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 19:51	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 15:49	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 01:23	AAT	Mt. Juliet, TN

SW-4 L1393555-04 Solid

Collected by
Collected date/time
Received date/time

08/20/21 10:00

08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 12:04	08/26/21 12:04	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 10:03	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:47	KMG	Mt. Juliet, TN

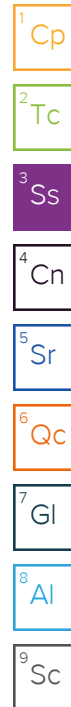
SAMPLE SUMMARY

SW-4 L1393555-04 Solid

Collected by
Collected date/time
Received date/time

08/20/21 10:00 08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 01:00	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:31	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 08:55	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 20:10	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 17:11	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 01:41	AAT	Mt. Juliet, TN



BS-1 L1393555-05 Solid

Collected by
Collected date/time
Received date/time

08/20/21 09:40 08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 12:06	08/26/21 12:06	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 10:09	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:50	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 01:02	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:34	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 09:19	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 20:29	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 16:03	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 01:58	AAT	Mt. Juliet, TN

FS-1 L1393555-06 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	WG1727689	1	08/26/21 12:09	08/26/21 12:09	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 10:14	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:53	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 01:05	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:38	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 10:06	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 20:48	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/26/21 16:17	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1728535	1	08/25/21 19:07	08/26/21 02:15	AAT	Mt. Juliet, TN

SW-5 L1393555-07 Solid

Collected by
Collected date/time
Received date/time

08/20/21 10:10 08/21/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1727689	1	08/26/21 12:12	08/26/21 12:12	KMG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1727911	1	08/29/21 18:57	08/30/21 10:19	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1728392	1	08/24/21 17:00	08/27/21 18:40	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 14:56	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1727688	1	08/24/21 10:01	08/27/21 01:08	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1728626	5	08/24/21 15:40	08/25/21 02:41	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1728346	1	08/24/21 09:14	08/25/21 09:43	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1728730	1	08/24/21 09:14	08/24/21 21:07	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1728502	1	08/26/21 05:05	08/27/21 01:33	TJD	Mt. Juliet, TN

SAMPLE SUMMARY

SW-5 L1393555-07 Solid

Collected by

Collected date/time

Received date/time

08/20/21 10:10

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	WG1728535	1	08/25/21 19:07	08/26/21 02:33	AAT	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



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	6.92		1	08/26/2021 11:56	WG1727689

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 09:43	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.98	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-01 WG1728392: 7.98 at 23.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2470		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-01 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	414		0.0852	0.500	1	08/25/2021 14:38	WG1728619
Cadmium	0.102	J	0.0471	0.500	1	08/25/2021 14:38	WG1728619
Copper	12.7		0.400	2.00	1	08/25/2021 14:38	WG1728619
Lead	10.6		0.208	0.500	1	08/25/2021 14:38	WG1728619
Nickel	8.39		0.132	2.00	1	08/25/2021 14:38	WG1728619
Selenium	1.65	J	0.764	2.00	1	08/25/2021 14:38	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:38	WG1728619
Zinc	30.8		0.832	5.00	1	08/25/2021 14:38	WG1728619

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

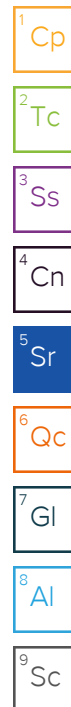
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.11		0.0167	0.200	1	08/27/2021 00:51	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.84		0.100	1.00	5	08/25/2021 02:13	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	3.09		0.0217	0.100	1	08/25/2021 07:44	WG1728346
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.9			77.0-120		08/25/2021 07:44	WG1728346



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	08/24/2021 19:13	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 19:13	WG1728730
Benzene	0.000600	J	0.000467	0.00100	1	08/24/2021 19:13	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 19:13	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 19:13	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 19:13	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 19:13	WG1728730
n-Butylbenzene	U		0.00525	0.0125	1	08/24/2021 19:13	WG1728730
sec-Butylbenzene	U		0.00288	0.0125	1	08/24/2021 19:13	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 19:13	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 19:13	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 19:13	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 19:13	WG1728730
Chloroethane	U	J3	0.00170	0.00500	1	08/24/2021 19:13	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 19:13	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 19:13	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 19:13	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 19:13	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 19:13	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 19:13	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 19:13	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 19:13	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 19:13	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 19:13	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 19:13	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 19:13	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 19:13	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 19:13	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 19:13	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 19:13	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 19:13	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 19:13	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 19:13	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 19:13	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 19:13	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 19:13	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 19:13	WG1728730
Ethylbenzene	U		0.000737	0.00250	1	08/24/2021 19:13	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 19:13	WG1728730
Isopropylbenzene	U		0.000425	0.00250	1	08/24/2021 19:13	WG1728730
p-Isopropyltoluene	U		0.00255	0.00500	1	08/24/2021 19:13	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 19:13	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 19:13	WG1728730
4-Methyl-2-pentanone (MIBK)	0.0185	J	0.00228	0.0250	1	08/24/2021 19:13	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 19:13	WG1728730
Naphthalene	0.0106	J	0.00488	0.0125	1	08/24/2021 19:13	WG1728730
n-Propylbenzene	0.00160	J	0.000950	0.00500	1	08/24/2021 19:13	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 19:13	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 19:13	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 19:13	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 19:13	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 19:13	WG1728730
Toluene	U		0.00130	0.00500	1	08/24/2021 19:13	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 19:13	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 19:13	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 19:13	WG1728730

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

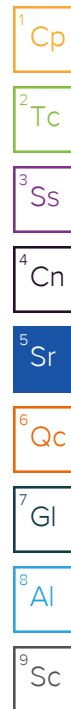
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/24/2021 19:13	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 19:13	WG1728730
Trichlorofluoromethane	U	<u>3</u>	0.000827	0.00250	1	08/24/2021 19:13	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 19:13	WG1728730
1,2,4-Trimethylbenzene	0.00755		0.00158	0.00500	1	08/24/2021 19:13	WG1728730
1,2,3-Trimethylbenzene	0.00948		0.00158	0.00500	1	08/24/2021 19:13	WG1728730
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/24/2021 19:13	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 19:13	WG1728730
Xylenes, Total	0.00523	<u>1</u>	0.000880	0.00650	1	08/24/2021 19:13	WG1728730
(S) Toluene-d8	109			75.0-131		08/24/2021 19:13	WG1728730
(S) 4-Bromofluorobenzene	103			67.0-138		08/24/2021 19:13	WG1728730
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		08/24/2021 19:13	WG1728730

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	51.3		1.61	4.00	1	08/26/2021 16:58	WG1728502
C28-C36 Motor Oil Range	35.1		0.274	4.00	1	08/26/2021 16:58	WG1728502
(S) o-Terphenyl	38.2			18.0-148		08/26/2021 16:58	WG1728502

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	08/26/2021 00:49	WG1728535
Acenaphthene	U		0.00209	0.00600	1	08/26/2021 00:49	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 00:49	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 00:49	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 00:49	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 00:49	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 00:49	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 00:49	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 00:49	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 00:49	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 00:49	WG1728535
Fluorene	0.0101		0.00205	0.00600	1	08/26/2021 00:49	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 00:49	WG1728535
Naphthalene	0.0269		0.00408	0.0200	1	08/26/2021 00:49	WG1728535
Phenanthrene	0.0230		0.00231	0.00600	1	08/26/2021 00:49	WG1728535
Pyrene	U		0.00200	0.00600	1	08/26/2021 00:49	WG1728535
1-Methylnaphthalene	0.0773		0.00449	0.0200	1	08/26/2021 00:49	WG1728535
2-Methylnaphthalene	0.0649		0.00427	0.0200	1	08/26/2021 00:49	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 00:49	WG1728535
(S) p-Terphenyl-d14	63.5			23.0-120		08/26/2021 00:49	WG1728535
(S) Nitrobenzene-d5	54.6			14.0-149		08/26/2021 00:49	WG1728535
(S) 2-Fluorobiphenyl	48.1			34.0-125		08/26/2021 00:49	WG1728535



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.68		1	08/26/2021 11:58	WG1727689

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 09:53	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.39	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-02 WG1728392: 8.39 at 24C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	408		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-02 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	298		0.0852	0.500	1	08/25/2021 14:40	WG1728619
Cadmium	0.0930	J	0.0471	0.500	1	08/25/2021 14:40	WG1728619
Copper	10.8		0.400	2.00	1	08/25/2021 14:40	WG1728619
Lead	11.8		0.208	0.500	1	08/25/2021 14:40	WG1728619
Nickel	8.17		0.132	2.00	1	08/25/2021 14:40	WG1728619
Selenium	U		0.764	2.00	1	08/25/2021 14:40	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:40	WG1728619
Zinc	28.2		0.832	5.00	1	08/25/2021 14:40	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	0.463		0.0167	0.200	1	08/27/2021 00:54	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.33		0.100	1.00	5	08/25/2021 02:17	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	0.0441	J	0.0217	0.100	1	08/25/2021 08:08	WG1728346
(S) a,a,a-Trifluorotoluene(FID)	103			77.0-120		08/25/2021 08:08	WG1728346



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	J3	0.0365	0.0500	1	08/24/2021 19:32	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 19:32	WG1728730
Benzene	U		0.000467	0.00100	1	08/24/2021 19:32	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 19:32	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 19:32	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 19:32	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 19:32	WG1728730
n-Butylbenzene	U		0.00525	0.0125	1	08/24/2021 19:32	WG1728730
sec-Butylbenzene	U		0.00288	0.0125	1	08/24/2021 19:32	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 19:32	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 19:32	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 19:32	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 19:32	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 19:32	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 19:32	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 19:32	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 19:32	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 19:32	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 19:32	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 19:32	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 19:32	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 19:32	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 19:32	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 19:32	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 19:32	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 19:32	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 19:32	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 19:32	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 19:32	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 19:32	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 19:32	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 19:32	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 19:32	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 19:32	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 19:32	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 19:32	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 19:32	WG1728730
Ethylbenzene	U		0.000737	0.00250	1	08/24/2021 19:32	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 19:32	WG1728730
Isopropylbenzene	U		0.000425	0.00250	1	08/24/2021 19:32	WG1728730
p-Isopropyltoluene	U		0.00255	0.00500	1	08/24/2021 19:32	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 19:32	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 19:32	WG1728730
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/24/2021 19:32	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 19:32	WG1728730
Naphthalene	U		0.00488	0.0125	1	08/24/2021 19:32	WG1728730
n-Propylbenzene	U		0.000950	0.00500	1	08/24/2021 19:32	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 19:32	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 19:32	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 19:32	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 19:32	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 19:32	WG1728730
Toluene	U		0.00130	0.00500	1	08/24/2021 19:32	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 19:32	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 19:32	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 19:32	WG1728730

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	08/24/2021 19:32	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 19:32	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 19:32	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 19:32	WG1728730
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 19:32	WG1728730
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 19:32	WG1728730
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/24/2021 19:32	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 19:32	WG1728730
Xylenes, Total	U		0.000880	0.00650	1	08/24/2021 19:32	WG1728730
(S) Toluene-d8	109			75.0-131		08/24/2021 19:32	WG1728730
(S) 4-Bromofluorobenzene	103			67.0-138		08/24/2021 19:32	WG1728730
(S) 1,2-Dichloroethane-d4	95.2			70.0-130		08/24/2021 19:32	WG1728730

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	08/26/2021 15:36	WG1728502
C28-C36 Motor Oil Range	0.987	J	0.274	4.00	1	08/26/2021 15:36	WG1728502
(S) o-Terphenyl	62.3			18.0-148		08/26/2021 15:36	WG1728502

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	08/26/2021 01:06	WG1728535
Acenaphthene	U		0.00209	0.00600	1	08/26/2021 01:06	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 01:06	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 01:06	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 01:06	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 01:06	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 01:06	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 01:06	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 01:06	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 01:06	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 01:06	WG1728535
Fluorene	U		0.00205	0.00600	1	08/26/2021 01:06	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 01:06	WG1728535
Naphthalene	U		0.00408	0.0200	1	08/26/2021 01:06	WG1728535
Phenanthrene	U		0.00231	0.00600	1	08/26/2021 01:06	WG1728535
Pyrene	U		0.00200	0.00600	1	08/26/2021 01:06	WG1728535
1-Methylnaphthalene	U		0.00449	0.0200	1	08/26/2021 01:06	WG1728535
2-Methylnaphthalene	U		0.00427	0.0200	1	08/26/2021 01:06	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 01:06	WG1728535
(S) p-Terphenyl-d14	79.9			23.0-120		08/26/2021 01:06	WG1728535
(S) Nitrobenzene-d5	58.4			14.0-149		08/26/2021 01:06	WG1728535
(S) 2-Fluorobiphenyl	63.4			34.0-125		08/26/2021 01:06	WG1728535



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.12		1	08/26/2021 12:01	WG1727689

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 09:58	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.30	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-03 WG1728392: 8.3 at 23.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	556		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-03 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	339		0.0852	0.500	1	08/25/2021 14:44	WG1728619
Cadmium	0.186	J	0.0471	0.500	1	08/25/2021 14:44	WG1728619
Copper	10.4		0.400	2.00	1	08/25/2021 14:44	WG1728619
Lead	13.3		0.208	0.500	1	08/25/2021 14:44	WG1728619
Nickel	8.75		0.132	2.00	1	08/25/2021 14:44	WG1728619
Selenium	1.59	J	0.764	2.00	1	08/25/2021 14:44	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:44	WG1728619
Zinc	34.0		0.832	5.00	1	08/25/2021 14:44	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	0.363		0.0167	0.200	1	08/27/2021 00:57	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.69		0.100	1.00	5	08/25/2021 02:20	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	08/25/2021 08:32	WG1728346
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	101			77.0-120		08/25/2021 08:32	WG1728346

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	J3	0.0365	0.0500	1	08/24/2021 19:51	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 19:51	WG1728730
Benzene	U		0.000467	0.00100	1	08/24/2021 19:51	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 19:51	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 19:51	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 19:51	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 19:51	WG1728730
n-Butylbenzene	U		0.00525	0.0125	1	08/24/2021 19:51	WG1728730
sec-Butylbenzene	U		0.00288	0.0125	1	08/24/2021 19:51	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 19:51	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 19:51	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 19:51	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 19:51	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 19:51	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 19:51	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 19:51	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 19:51	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 19:51	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 19:51	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 19:51	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 19:51	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 19:51	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 19:51	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 19:51	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 19:51	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 19:51	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 19:51	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 19:51	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 19:51	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 19:51	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 19:51	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 19:51	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 19:51	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 19:51	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 19:51	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 19:51	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 19:51	WG1728730
Ethylbenzene	U		0.000737	0.00250	1	08/24/2021 19:51	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 19:51	WG1728730
Isopropylbenzene	U		0.000425	0.00250	1	08/24/2021 19:51	WG1728730
p-Isopropyltoluene	U		0.00255	0.00500	1	08/24/2021 19:51	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 19:51	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 19:51	WG1728730
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/24/2021 19:51	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 19:51	WG1728730
Naphthalene	U		0.00488	0.0125	1	08/24/2021 19:51	WG1728730
n-Propylbenzene	U		0.000950	0.00500	1	08/24/2021 19:51	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 19:51	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 19:51	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 19:51	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 19:51	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 19:51	WG1728730
Toluene	U		0.00130	0.00500	1	08/24/2021 19:51	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 19:51	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 19:51	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 19:51	WG1728730

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	08/24/2021 19:51	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 19:51	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 19:51	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 19:51	WG1728730
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 19:51	WG1728730
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 19:51	WG1728730
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/24/2021 19:51	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 19:51	WG1728730
Xylenes, Total	U		0.000880	0.00650	1	08/24/2021 19:51	WG1728730
(S) Toluene-d8	107			75.0-131		08/24/2021 19:51	WG1728730
(S) 4-Bromofluorobenzene	102			67.0-138		08/24/2021 19:51	WG1728730
(S) 1,2-Dichloroethane-d4	99.0			70.0-130		08/24/2021 19:51	WG1728730

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	9.63		1.61	4.00	1	08/26/2021 15:49	WG1728502
C28-C36 Motor Oil Range	13.2		0.274	4.00	1	08/26/2021 15:49	WG1728502
(S) o-Terphenyl	45.4			18.0-148		08/26/2021 15:49	WG1728502

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	08/26/2021 01:23	WG1728535
Acenaphthene	U		0.00209	0.00600	1	08/26/2021 01:23	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 01:23	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 01:23	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 01:23	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 01:23	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 01:23	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 01:23	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 01:23	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 01:23	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 01:23	WG1728535
Fluorene	U		0.00205	0.00600	1	08/26/2021 01:23	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 01:23	WG1728535
Naphthalene	U		0.00408	0.0200	1	08/26/2021 01:23	WG1728535
Phenanthrene	0.00622		0.00231	0.00600	1	08/26/2021 01:23	WG1728535
Pyrene	U		0.00200	0.00600	1	08/26/2021 01:23	WG1728535
1-Methylnaphthalene	0.00746	U	0.00449	0.0200	1	08/26/2021 01:23	WG1728535
2-Methylnaphthalene	U		0.00427	0.0200	1	08/26/2021 01:23	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 01:23	WG1728535
(S) p-Terphenyl-d14	89.2			23.0-120		08/26/2021 01:23	WG1728535
(S) Nitrobenzene-d5	67.2			14.0-149		08/26/2021 01:23	WG1728535
(S) 2-Fluorobiphenyl	73.1			34.0-125		08/26/2021 01:23	WG1728535

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	4.01		1	08/26/2021 12:04	WG1727689

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 10:03	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.12	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-04 WG1728392: 8.12 at 23.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1310		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-04 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	401		0.0852	0.500	1	08/25/2021 14:47	WG1728619
Cadmium	0.148	J	0.0471	0.500	1	08/25/2021 14:47	WG1728619
Copper	10.5		0.400	2.00	1	08/25/2021 14:47	WG1728619
Lead	10.0		0.208	0.500	1	08/25/2021 14:47	WG1728619
Nickel	9.08		0.132	2.00	1	08/25/2021 14:47	WG1728619
Selenium	1.89	J	0.764	2.00	1	08/25/2021 14:47	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:47	WG1728619
Zinc	36.8		0.832	5.00	1	08/25/2021 14:47	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	0.619		0.0167	0.200	1	08/27/2021 01:00	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	15.6		0.100	1.00	5	08/25/2021 02:31	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	1.52		0.0217	0.100	1	08/25/2021 08:55	WG1728346
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100			77.0-120		08/25/2021 08:55	WG1728346



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	J3	0.0365	0.0500	1	08/24/2021 20:10	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 20:10	WG1728730
Benzene	U		0.000467	0.00100	1	08/24/2021 20:10	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 20:10	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 20:10	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 20:10	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 20:10	WG1728730
n-Butylbenzene	0.0169		0.00525	0.0125	1	08/24/2021 20:10	WG1728730
sec-Butylbenzene	0.0104	J	0.00288	0.0125	1	08/24/2021 20:10	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 20:10	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 20:10	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 20:10	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 20:10	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 20:10	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 20:10	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 20:10	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 20:10	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 20:10	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 20:10	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 20:10	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 20:10	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 20:10	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 20:10	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 20:10	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 20:10	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 20:10	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 20:10	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 20:10	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 20:10	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 20:10	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 20:10	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 20:10	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 20:10	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 20:10	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 20:10	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 20:10	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 20:10	WG1728730
Ethylbenzene	0.00470		0.000737	0.00250	1	08/24/2021 20:10	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 20:10	WG1728730
Isopropylbenzene	0.00537		0.000425	0.00250	1	08/24/2021 20:10	WG1728730
p-Isopropyltoluene	0.00765		0.00255	0.00500	1	08/24/2021 20:10	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 20:10	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 20:10	WG1728730
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/24/2021 20:10	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 20:10	WG1728730
Naphthalene	0.0800		0.00488	0.0125	1	08/24/2021 20:10	WG1728730
n-Propylbenzene	0.0113		0.000950	0.00500	1	08/24/2021 20:10	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 20:10	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 20:10	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 20:10	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 20:10	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 20:10	WG1728730
Toluene	0.00170	J	0.00130	0.00500	1	08/24/2021 20:10	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 20:10	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 20:10	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 20:10	WG1728730

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

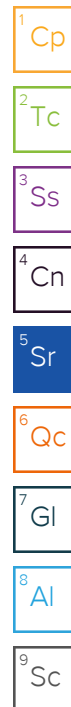
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/24/2021 20:10	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 20:10	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 20:10	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 20:10	WG1728730
1,2,4-Trimethylbenzene	0.0400		0.00158	0.00500	1	08/24/2021 20:10	WG1728730
1,2,3-Trimethylbenzene	0.0414		0.00158	0.00500	1	08/24/2021 20:10	WG1728730
1,3,5-Trimethylbenzene	0.00867		0.00200	0.00500	1	08/24/2021 20:10	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 20:10	WG1728730
Xylenes, Total	0.0257		0.000880	0.00650	1	08/24/2021 20:10	WG1728730
(S) Toluene-d8	109			75.0-131		08/24/2021 20:10	WG1728730
(S) 4-Bromofluorobenzene	101			67.0-138		08/24/2021 20:10	WG1728730
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		08/24/2021 20:10	WG1728730

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	149		1.61	4.00	1	08/26/2021 17:11	WG1728502
C28-C36 Motor Oil Range	109		0.274	4.00	1	08/26/2021 17:11	WG1728502
(S) o-Terphenyl	43.0			18.0-148		08/26/2021 17:11	WG1728502

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	08/26/2021 01:41	WG1728535
Acenaphthene	0.0144		0.00209	0.00600	1	08/26/2021 01:41	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 01:41	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 01:41	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 01:41	WG1728535
Benzo(b)fluoranthene	0.00369	U	0.00153	0.00600	1	08/26/2021 01:41	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 01:41	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 01:41	WG1728535
Chrysene	0.0178		0.00232	0.00600	1	08/26/2021 01:41	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 01:41	WG1728535
Fluoranthene	0.00726		0.00227	0.00600	1	08/26/2021 01:41	WG1728535
Fluorene	0.0840		0.00205	0.00600	1	08/26/2021 01:41	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 01:41	WG1728535
Naphthalene	0.211		0.00408	0.0200	1	08/26/2021 01:41	WG1728535
Phenanthrene	0.317		0.00231	0.00600	1	08/26/2021 01:41	WG1728535
Pyrene	0.0177		0.00200	0.00600	1	08/26/2021 01:41	WG1728535
1-Methylnaphthalene	0.630		0.00449	0.0200	1	08/26/2021 01:41	WG1728535
2-Methylnaphthalene	0.384		0.00427	0.0200	1	08/26/2021 01:41	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 01:41	WG1728535
(S) p-Terphenyl-d14	81.8			23.0-120		08/26/2021 01:41	WG1728535
(S) Nitrobenzene-d5	93.1			14.0-149		08/26/2021 01:41	WG1728535
(S) 2-Fluorobiphenyl	65.7			34.0-125		08/26/2021 01:41	WG1728535



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.55		1	08/26/2021 12:06	WG1727689

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 10:09	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.58	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-05 WG1728392: 8.58 at 23.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	345		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-05 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	350		0.0852	0.500	1	08/25/2021 14:50	WG1728619
Cadmium	0.122	J	0.0471	0.500	1	08/25/2021 14:50	WG1728619
Copper	10.8		0.400	2.00	1	08/25/2021 14:50	WG1728619
Lead	9.29		0.208	0.500	1	08/25/2021 14:50	WG1728619
Nickel	9.00		0.132	2.00	1	08/25/2021 14:50	WG1728619
Selenium	1.76	J	0.764	2.00	1	08/25/2021 14:50	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:50	WG1728619
Zinc	35.1		0.832	5.00	1	08/25/2021 14:50	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	0.359		0.0167	0.200	1	08/27/2021 01:02	WG1727688

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 02:34	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	08/25/2021 09:19	WG1728346
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102			77.0-120		08/25/2021 09:19	WG1728346

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	J3	0.0365	0.0500	1	08/24/2021 20:29	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 20:29	WG1728730
Benzene	U		0.000467	0.00100	1	08/24/2021 20:29	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 20:29	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 20:29	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 20:29	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 20:29	WG1728730
n-Butylbenzene	U		0.00525	0.0125	1	08/24/2021 20:29	WG1728730
sec-Butylbenzene	U		0.00288	0.0125	1	08/24/2021 20:29	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 20:29	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 20:29	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 20:29	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 20:29	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 20:29	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 20:29	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 20:29	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 20:29	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 20:29	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 20:29	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 20:29	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 20:29	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 20:29	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 20:29	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 20:29	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 20:29	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 20:29	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 20:29	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 20:29	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 20:29	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 20:29	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 20:29	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 20:29	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 20:29	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 20:29	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 20:29	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 20:29	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 20:29	WG1728730
Ethylbenzene	U		0.000737	0.00250	1	08/24/2021 20:29	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 20:29	WG1728730
Isopropylbenzene	U		0.000425	0.00250	1	08/24/2021 20:29	WG1728730
p-Isopropyltoluene	U		0.00255	0.00500	1	08/24/2021 20:29	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 20:29	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 20:29	WG1728730
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/24/2021 20:29	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 20:29	WG1728730
Naphthalene	U		0.00488	0.0125	1	08/24/2021 20:29	WG1728730
n-Propylbenzene	U		0.000950	0.00500	1	08/24/2021 20:29	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 20:29	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 20:29	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 20:29	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 20:29	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 20:29	WG1728730
Toluene	U		0.00130	0.00500	1	08/24/2021 20:29	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 20:29	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 20:29	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 20:29	WG1728730

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

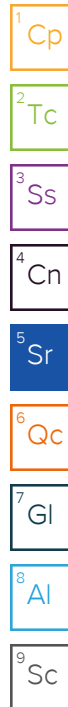
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/24/2021 20:29	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 20:29	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 20:29	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 20:29	WG1728730
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 20:29	WG1728730
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 20:29	WG1728730
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/24/2021 20:29	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 20:29	WG1728730
Xylenes, Total	U		0.000880	0.00650	1	08/24/2021 20:29	WG1728730
(S) Toluene-d8	109			75.0-131		08/24/2021 20:29	WG1728730
(S) 4-Bromofluorobenzene	101			67.0-138		08/24/2021 20:29	WG1728730
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		08/24/2021 20:29	WG1728730

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	08/26/2021 16:03	WG1728502
C28-C36 Motor Oil Range	4.55		0.274	4.00	1	08/26/2021 16:03	WG1728502
(S) o-Terphenyl	69.8			18.0-148		08/26/2021 16:03	WG1728502

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	08/26/2021 01:58	WG1728535
Acenaphthene	U		0.00209	0.00600	1	08/26/2021 01:58	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 01:58	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 01:58	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 01:58	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 01:58	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 01:58	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 01:58	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 01:58	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 01:58	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 01:58	WG1728535
Fluorene	U		0.00205	0.00600	1	08/26/2021 01:58	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 01:58	WG1728535
Naphthalene	U		0.00408	0.0200	1	08/26/2021 01:58	WG1728535
Phenanthrene	U		0.00231	0.00600	1	08/26/2021 01:58	WG1728535
Pyrene	U		0.00200	0.00600	1	08/26/2021 01:58	WG1728535
1-Methylnaphthalene	U		0.00449	0.0200	1	08/26/2021 01:58	WG1728535
2-Methylnaphthalene	U		0.00427	0.0200	1	08/26/2021 01:58	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 01:58	WG1728535
(S) p-Terphenyl-d14	83.4			23.0-120		08/26/2021 01:58	WG1728535
(S) Nitrobenzene-d5	65.6			14.0-149		08/26/2021 01:58	WG1728535
(S) 2-Fluorobiphenyl	70.0			34.0-125		08/26/2021 01:58	WG1728535



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.93		1	08/26/2021 12:09	WG1727689

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 10:14	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.53	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-06 WG1728392: 7.53 at 24C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2370		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-06 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	405		0.0852	0.500	1	08/25/2021 14:53	WG1728619
Cadmium	0.121	J	0.0471	0.500	1	08/25/2021 14:53	WG1728619
Copper	6.31		0.400	2.00	1	08/25/2021 14:53	WG1728619
Lead	7.55		0.208	0.500	1	08/25/2021 14:53	WG1728619
Nickel	5.44		0.132	2.00	1	08/25/2021 14:53	WG1728619
Selenium	U		0.764	2.00	1	08/25/2021 14:53	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:53	WG1728619
Zinc	23.8		0.832	5.00	1	08/25/2021 14:53	WG1728619

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

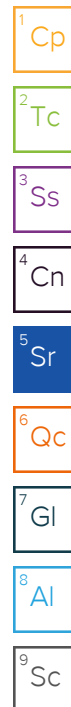
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.673		0.0167	0.200	1	08/27/2021 01:05	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.28		0.100	1.00	5	08/25/2021 02:38	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	10.4		0.0217	0.100	1	08/25/2021 10:06	WG1728346
(S) a,a,a-Trifluorotoluene(FID)	87.5			77.0-120		08/25/2021 10:06	WG1728346



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	J3	0.0365	0.0500	1	08/24/2021 20:48	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 20:48	WG1728730
Benzene	0.00700		0.000467	0.00100	1	08/24/2021 20:48	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 20:48	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 20:48	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 20:48	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 20:48	WG1728730
n-Butylbenzene	0.0152		0.00525	0.0125	1	08/24/2021 20:48	WG1728730
sec-Butylbenzene	0.0121	J	0.00288	0.0125	1	08/24/2021 20:48	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 20:48	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 20:48	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 20:48	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 20:48	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 20:48	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 20:48	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 20:48	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 20:48	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 20:48	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 20:48	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 20:48	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 20:48	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 20:48	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 20:48	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 20:48	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 20:48	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 20:48	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 20:48	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 20:48	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 20:48	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 20:48	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 20:48	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 20:48	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 20:48	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 20:48	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 20:48	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 20:48	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 20:48	WG1728730
Ethylbenzene	0.0243		0.000737	0.00250	1	08/24/2021 20:48	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 20:48	WG1728730
Isopropylbenzene	0.0136		0.000425	0.00250	1	08/24/2021 20:48	WG1728730
p-Isopropyltoluene	0.00775		0.00255	0.00500	1	08/24/2021 20:48	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 20:48	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 20:48	WG1728730
4-Methyl-2-pentanone (MIBK)	0.0334		0.00228	0.0250	1	08/24/2021 20:48	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 20:48	WG1728730
Naphthalene	0.0170		0.00488	0.0125	1	08/24/2021 20:48	WG1728730
n-Propylbenzene	0.0232		0.000950	0.00500	1	08/24/2021 20:48	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 20:48	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 20:48	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 20:48	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 20:48	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 20:48	WG1728730
Toluene	0.0397		0.00130	0.00500	1	08/24/2021 20:48	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 20:48	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 20:48	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 20:48	WG1728730

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

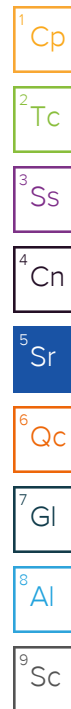
Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U		0.000597	0.00250	1	08/24/2021 20:48	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 20:48	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 20:48	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 20:48	WG1728730
1,2,4-Trimethylbenzene	0.0473		0.00158	0.00500	1	08/24/2021 20:48	WG1728730
1,2,3-Trimethylbenzene	0.0353		0.00158	0.00500	1	08/24/2021 20:48	WG1728730
1,3,5-Trimethylbenzene	0.0119		0.00200	0.00500	1	08/24/2021 20:48	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 20:48	WG1728730
Xylenes, Total	0.0869		0.000880	0.00650	1	08/24/2021 20:48	WG1728730
(S) Toluene-d8	107			75.0-131		08/24/2021 20:48	WG1728730
(S) 4-Bromofluorobenzene	105			67.0-138		08/24/2021 20:48	WG1728730
(S) 1,2-Dichloroethane-d4	95.2			70.0-130		08/24/2021 20:48	WG1728730

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	26.8		1.61	4.00	1	08/26/2021 16:17	WG1728502
C28-C36 Motor Oil Range	25.7		0.274	4.00	1	08/26/2021 16:17	WG1728502
(S) o-Terphenyl	35.5			18.0-148		08/26/2021 16:17	WG1728502

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	08/26/2021 02:15	WG1728535
Acenaphthene	U		0.00209	0.00600	1	08/26/2021 02:15	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 02:15	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 02:15	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 02:15	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 02:15	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 02:15	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 02:15	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 02:15	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 02:15	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 02:15	WG1728535
Fluorene	0.00242	U	0.00205	0.00600	1	08/26/2021 02:15	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 02:15	WG1728535
Naphthalene	0.0289		0.00408	0.0200	1	08/26/2021 02:15	WG1728535
Phenanthrene	0.00612		0.00231	0.00600	1	08/26/2021 02:15	WG1728535
Pyrene	U		0.00200	0.00600	1	08/26/2021 02:15	WG1728535
1-Methylnaphthalene	0.0383		0.00449	0.0200	1	08/26/2021 02:15	WG1728535
2-Methylnaphthalene	0.0326		0.00427	0.0200	1	08/26/2021 02:15	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 02:15	WG1728535
(S) p-Terphenyl-d14	73.4			23.0-120		08/26/2021 02:15	WG1728535
(S) Nitrobenzene-d5	57.8			14.0-149		08/26/2021 02:15	WG1728535
(S) 2-Fluorobiphenyl	58.7			34.0-125		08/26/2021 02:15	WG1728535



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	4.23		1	08/26/2021 12:12	WG1727689

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 10:19	WG1727911

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.15	T8	1	08/27/2021 18:40	WG1728392

Sample Narrative:

L1393555-07 WG1728392: 8.15 at 23.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1420		10.0	1	08/25/2021 17:13	WG1728756

Sample Narrative:

L1393555-07 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	369		0.0852	0.500	1	08/25/2021 14:56	WG1728619
Cadmium	0.112	J	0.0471	0.500	1	08/25/2021 14:56	WG1728619
Copper	9.16		0.400	2.00	1	08/25/2021 14:56	WG1728619
Lead	11.2		0.208	0.500	1	08/25/2021 14:56	WG1728619
Nickel	7.75		0.132	2.00	1	08/25/2021 14:56	WG1728619
Selenium	1.21	J	0.764	2.00	1	08/25/2021 14:56	WG1728619
Silver	U		0.127	1.00	1	08/25/2021 14:56	WG1728619
Zinc	31.1		0.832	5.00	1	08/25/2021 14:56	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	0.503		0.0167	0.200	1	08/27/2021 01:08	WG1727688

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.53		0.100	1.00	5	08/25/2021 02:41	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	08/25/2021 09:43	WG1728346
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		08/25/2021 09:43	WG1728346

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	J3	0.0365	0.0500	1	08/24/2021 21:07	WG1728730
Acrylonitrile	U		0.00361	0.0125	1	08/24/2021 21:07	WG1728730
Benzene	U		0.000467	0.00100	1	08/24/2021 21:07	WG1728730
Bromobenzene	U		0.000900	0.0125	1	08/24/2021 21:07	WG1728730
Bromodichloromethane	U		0.000725	0.00250	1	08/24/2021 21:07	WG1728730
Bromoform	U		0.00117	0.0250	1	08/24/2021 21:07	WG1728730
Bromomethane	U		0.00197	0.0125	1	08/24/2021 21:07	WG1728730
n-Butylbenzene	U		0.00525	0.0125	1	08/24/2021 21:07	WG1728730
sec-Butylbenzene	U		0.00288	0.0125	1	08/24/2021 21:07	WG1728730
tert-Butylbenzene	U		0.00195	0.00500	1	08/24/2021 21:07	WG1728730
Carbon tetrachloride	U		0.000898	0.00500	1	08/24/2021 21:07	WG1728730
Chlorobenzene	U		0.000210	0.00250	1	08/24/2021 21:07	WG1728730
Chlorodibromomethane	U		0.000612	0.00250	1	08/24/2021 21:07	WG1728730
Chloroethane	U		0.00170	0.00500	1	08/24/2021 21:07	WG1728730
Chloroform	U		0.00103	0.00250	1	08/24/2021 21:07	WG1728730
Chloromethane	U		0.00435	0.0125	1	08/24/2021 21:07	WG1728730
2-Chlorotoluene	U		0.000865	0.00250	1	08/24/2021 21:07	WG1728730
4-Chlorotoluene	U		0.000450	0.00500	1	08/24/2021 21:07	WG1728730
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250	1	08/24/2021 21:07	WG1728730
1,2-Dibromoethane	U		0.000648	0.00250	1	08/24/2021 21:07	WG1728730
Dibromomethane	U		0.000750	0.00500	1	08/24/2021 21:07	WG1728730
1,2-Dichlorobenzene	U		0.000425	0.00500	1	08/24/2021 21:07	WG1728730
1,3-Dichlorobenzene	U		0.000600	0.00500	1	08/24/2021 21:07	WG1728730
1,4-Dichlorobenzene	U		0.000700	0.00500	1	08/24/2021 21:07	WG1728730
Dichlorodifluoromethane	U		0.00161	0.00250	1	08/24/2021 21:07	WG1728730
1,1-Dichloroethane	U		0.000491	0.00250	1	08/24/2021 21:07	WG1728730
1,2-Dichloroethane	U		0.000649	0.00250	1	08/24/2021 21:07	WG1728730
1,1-Dichloroethene	U		0.000606	0.00250	1	08/24/2021 21:07	WG1728730
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	08/24/2021 21:07	WG1728730
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	08/24/2021 21:07	WG1728730
1,2-Dichloropropane	U		0.00142	0.00500	1	08/24/2021 21:07	WG1728730
1,1-Dichloropropene	U		0.000809	0.00250	1	08/24/2021 21:07	WG1728730
1,3-Dichloropropane	U		0.000501	0.00500	1	08/24/2021 21:07	WG1728730
cis-1,3-Dichloropropene	U		0.000757	0.00250	1	08/24/2021 21:07	WG1728730
trans-1,3-Dichloropropene	U		0.00114	0.00500	1	08/24/2021 21:07	WG1728730
2,2-Dichloropropane	U		0.00138	0.00250	1	08/24/2021 21:07	WG1728730
Di-isopropyl ether	U		0.000410	0.00100	1	08/24/2021 21:07	WG1728730
Ethylbenzene	U		0.000737	0.00250	1	08/24/2021 21:07	WG1728730
Hexachloro-1,3-butadiene	U		0.00600	0.0250	1	08/24/2021 21:07	WG1728730
Isopropylbenzene	U		0.000425	0.00250	1	08/24/2021 21:07	WG1728730
p-Isopropyltoluene	U		0.00255	0.00500	1	08/24/2021 21:07	WG1728730
2-Butanone (MEK)	U		0.0635	0.100	1	08/24/2021 21:07	WG1728730
Methylene Chloride	U	J4	0.00664	0.0250	1	08/24/2021 21:07	WG1728730
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250	1	08/24/2021 21:07	WG1728730
Methyl tert-butyl ether	U		0.000350	0.00100	1	08/24/2021 21:07	WG1728730
Naphthalene	U		0.00488	0.0125	1	08/24/2021 21:07	WG1728730
n-Propylbenzene	U		0.000950	0.00500	1	08/24/2021 21:07	WG1728730
Styrene	U		0.000229	0.0125	1	08/24/2021 21:07	WG1728730
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250	1	08/24/2021 21:07	WG1728730
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250	1	08/24/2021 21:07	WG1728730
1,1,2-Trichlorotrifluoroethane	U	J4	0.000754	0.00250	1	08/24/2021 21:07	WG1728730
Tetrachloroethene	U		0.000896	0.00250	1	08/24/2021 21:07	WG1728730
Toluene	U		0.00130	0.00500	1	08/24/2021 21:07	WG1728730
1,2,3-Trichlorobenzene	U		0.00733	0.0125	1	08/24/2021 21:07	WG1728730
1,2,4-Trichlorobenzene	U		0.00440	0.0125	1	08/24/2021 21:07	WG1728730
1,1,1-Trichloroethane	U		0.000923	0.00250	1	08/24/2021 21:07	WG1728730

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	08/24/2021 21:07	WG1728730
Trichloroethene	U		0.000584	0.00100	1	08/24/2021 21:07	WG1728730
Trichlorofluoromethane	U		0.000827	0.00250	1	08/24/2021 21:07	WG1728730
1,2,3-Trichloropropane	U		0.00162	0.0125	1	08/24/2021 21:07	WG1728730
1,2,4-Trimethylbenzene	0.00168	<u>U</u>	0.00158	0.00500	1	08/24/2021 21:07	WG1728730
1,2,3-Trimethylbenzene	U		0.00158	0.00500	1	08/24/2021 21:07	WG1728730
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/24/2021 21:07	WG1728730
Vinyl chloride	U		0.00116	0.00250	1	08/24/2021 21:07	WG1728730
Xylenes, Total	U		0.000880	0.00650	1	08/24/2021 21:07	WG1728730
(S) Toluene-d8	108			75.0-131		08/24/2021 21:07	WG1728730
(S) 4-Bromofluorobenzene	101			67.0-138		08/24/2021 21:07	WG1728730
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		08/24/2021 21:07	WG1728730

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	52.1		1.61	4.00	1	08/27/2021 01:33	WG1728502
C28-C36 Motor Oil Range	33.9		0.274	4.00	1	08/27/2021 01:33	WG1728502
(S) o-Terphenyl	43.5			18.0-148		08/27/2021 01:33	WG1728502

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	08/26/2021 02:33	WG1728535
Acenaphthene	0.00247	<u>U</u>	0.00209	0.00600	1	08/26/2021 02:33	WG1728535
Acenaphthylene	U		0.00216	0.00600	1	08/26/2021 02:33	WG1728535
Benzo(a)anthracene	U		0.00173	0.00600	1	08/26/2021 02:33	WG1728535
Benzo(a)pyrene	U		0.00179	0.00600	1	08/26/2021 02:33	WG1728535
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/26/2021 02:33	WG1728535
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	08/26/2021 02:33	WG1728535
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/26/2021 02:33	WG1728535
Chrysene	U		0.00232	0.00600	1	08/26/2021 02:33	WG1728535
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/26/2021 02:33	WG1728535
Fluoranthene	U		0.00227	0.00600	1	08/26/2021 02:33	WG1728535
Fluorene	0.00960		0.00205	0.00600	1	08/26/2021 02:33	WG1728535
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/26/2021 02:33	WG1728535
Naphthalene	0.0261		0.00408	0.0200	1	08/26/2021 02:33	WG1728535
Phenanthrene	0.0280		0.00231	0.00600	1	08/26/2021 02:33	WG1728535
Pyrene	0.00205	<u>U</u>	0.00200	0.00600	1	08/26/2021 02:33	WG1728535
1-Methylnaphthalene	0.0774		0.00449	0.0200	1	08/26/2021 02:33	WG1728535
2-Methylnaphthalene	0.0537		0.00427	0.0200	1	08/26/2021 02:33	WG1728535
2-Chloronaphthalene	U		0.00466	0.0200	1	08/26/2021 02:33	WG1728535
(S) p-Terphenyl-d14	80.7			23.0-120		08/26/2021 02:33	WG1728535
(S) Nitrobenzene-d5	68.2			14.0-149		08/26/2021 02:33	WG1728535
(S) 2-Fluorobiphenyl	63.9			34.0-125		08/26/2021 02:33	WG1728535

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

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	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1392971-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1392971-01 08/27/21 18:40 • (DUP) R3697746-2 08/27/21 18:40

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.28	8.32	1	0.482		1

Sample Narrative:

OS: 8.28 at 25C

DUP: 8.32 at 24.6C

L1393661-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1393661-01 08/27/21 18:40 • (DUP) R3697746-3 08/27/21 18:40

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.23	7.22	1	0.138		1

Sample Narrative:

OS: 7.23 at 23.7C

DUP: 7.22 at 23.7C

Laboratory Control Sample (LCS)

(LCS) R3697746-1 08/27/21 18:40

	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 24.2C



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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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) R3697191-1 08/27/21 00:43

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

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

(LCS) R3697191-2 08/27/21 00:46 • (LCSD) R3697191-3 08/27/21 00:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.02	0.987	102	98.7	80.0-120			3.11	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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3696703-3 08/25/21 01:53

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)	101			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3696703-2 08/25/21 00:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.21	94.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3697121-3 08/24/21 14:02

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) R3697121-3 08/24/21 14:02

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	107			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	97.4			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R3697121-1 08/24/21 11:49 • (LCSD) R3697121-2 08/24/21 12:08

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	0.362	0.727	57.9	116	10.0-160		J3	67.0	31
Acrylonitrile	0.625	0.646	0.654	103	105	45.0-153			1.23	22
Benzene	0.125	0.116	0.118	92.8	94.4	70.0-123			1.71	20
Bromobenzene	0.125	0.118	0.121	94.4	96.8	73.0-121			2.51	20
Bromodichloromethane	0.125	0.115	0.116	92.0	92.8	73.0-121			0.866	20

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

(LCS) R3697121-1 08/24/21 11:49 • (LCSD) R3697121-2 08/24/21 12:08

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	0.114	0.121	91.2	96.8	64.0-132			5.96	20
Bromomethane	0.125	0.115	0.124	92.0	99.2	56.0-147			7.53	20
n-Butylbenzene	0.125	0.114	0.120	91.2	96.0	68.0-135			5.13	20
sec-Butylbenzene	0.125	0.116	0.117	92.8	93.6	74.0-130			0.858	20
tert-Butylbenzene	0.125	0.116	0.119	92.8	95.2	75.0-127			2.55	20
Carbon tetrachloride	0.125	0.100	0.102	80.0	81.6	66.0-128			1.98	20
Chlorobenzene	0.125	0.122	0.127	97.6	102	76.0-128			4.02	20
Chlorodibromomethane	0.125	0.121	0.124	96.8	99.2	74.0-127			2.45	20
Chloroethane	0.125	0.103	0.102	82.4	81.6	61.0-134			0.976	20
Chloroform	0.125	0.120	0.124	96.0	99.2	72.0-123			3.28	20
Chloromethane	0.125	0.109	0.112	87.2	89.6	51.0-138			2.71	20
2-Chlorotoluene	0.125	0.124	0.127	99.2	102	75.0-124			2.39	20
4-Chlorotoluene	0.125	0.116	0.120	92.8	96.0	75.0-124			3.39	20
1,2-Dibromo-3-Chloropropane	0.125	0.109	0.110	87.2	88.0	59.0-130			0.913	20
1,2-Dibromoethane	0.125	0.121	0.124	96.8	99.2	74.0-128			2.45	20
Dibromomethane	0.125	0.121	0.127	96.8	102	75.0-122			4.84	20
1,2-Dichlorobenzene	0.125	0.124	0.125	99.2	100	76.0-124			0.803	20
1,3-Dichlorobenzene	0.125	0.123	0.127	98.4	102	76.0-125			3.20	20
1,4-Dichlorobenzene	0.125	0.123	0.126	98.4	101	77.0-121			2.41	20
Dichlorodifluoromethane	0.125	0.141	0.144	113	115	43.0-156			2.11	20
1,1-Dichloroethane	0.125	0.120	0.122	96.0	97.6	70.0-127			1.65	20
1,2-Dichloroethane	0.125	0.120	0.126	96.0	101	65.0-131			4.88	20
1,1-Dichloroethene	0.125	0.102	0.0973	81.6	77.8	65.0-131			4.72	20
cis-1,2-Dichloroethene	0.125	0.120	0.123	96.0	98.4	73.0-125			2.47	20
trans-1,2-Dichloroethene	0.125	0.118	0.121	94.4	96.8	71.0-125			2.51	20
1,2-Dichloropropane	0.125	0.114	0.116	91.2	92.8	74.0-125			1.74	20
1,1-Dichloropropene	0.125	0.118	0.124	94.4	99.2	73.0-125			4.96	20
1,3-Dichloropropane	0.125	0.122	0.121	97.6	96.8	80.0-125			0.823	20
cis-1,3-Dichloropropene	0.125	0.120	0.121	96.0	96.8	76.0-127			0.830	20
trans-1,3-Dichloropropene	0.125	0.120	0.123	96.0	98.4	73.0-127			2.47	20
2,2-Dichloropropane	0.125	0.131	0.123	105	98.4	59.0-135			6.30	20
Di-isopropyl ether	0.125	0.117	0.119	93.6	95.2	60.0-136			1.69	20
Ethylbenzene	0.125	0.124	0.123	99.2	98.4	74.0-126			0.810	20
Hexachloro-1,3-butadiene	0.125	0.125	0.127	100	102	57.0-150			1.59	20
Isopropylbenzene	0.125	0.126	0.127	101	102	72.0-127			0.791	20
p-Isopropyltoluene	0.125	0.115	0.119	92.0	95.2	72.0-133			3.42	20
2-Butanone (MEK)	0.625	0.574	0.605	91.8	96.8	30.0-160			5.26	24
Methylene Chloride	0.125	0.0925	0.0836	74.0	66.9	68.0-123		J4	10.1	20
4-Methyl-2-pentanone (MIBK)	0.625	0.614	0.615	98.2	98.4	56.0-143			0.163	20
Methyl tert-butyl ether	0.125	0.124	0.124	99.2	99.2	66.0-132			0.000	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3697121-1 08/24/21 11:49 • (LCSD) R3697121-2 08/24/21 12:08

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 %
Naphthalene	0.125	0.102	0.102	81.6	81.6	59.0-130			0.000	20
n-Propylbenzene	0.125	0.121	0.123	96.8	98.4	74.0-126			1.64	20
Styrene	0.125	0.117	0.120	93.6	96.0	72.0-127			2.53	20
1,1,1,2-Tetrachloroethane	0.125	0.127	0.123	102	98.4	74.0-129			3.20	20
1,1,2,2-Tetrachloroethane	0.125	0.121	0.123	96.8	98.4	68.0-128			1.64	20
Tetrachloroethene	0.125	0.127	0.132	102	106	70.0-136			3.86	20
Toluene	0.125	0.123	0.126	98.4	101	75.0-121			2.41	20
1,1,2-Trichlorotrifluoroethane	0.125	0.0738	0.0808	59.0	64.6	61.0-139	J4		9.06	20
1,2,3-Trichlorobenzene	0.125	0.0872	0.0878	69.8	70.2	59.0-139			0.686	20
1,2,4-Trichlorobenzene	0.125	0.111	0.119	88.8	95.2	62.0-137			6.96	20
1,1,1-Trichloroethane	0.125	0.109	0.115	87.2	92.0	69.0-126			5.36	20
1,1,2-Trichloroethane	0.125	0.126	0.126	101	101	78.0-123			0.000	20
Trichloroethene	0.125	0.123	0.124	98.4	99.2	76.0-126			0.810	20
Trichlorofluoromethane	0.125	0.120	0.120	96.0	96.0	61.0-142			0.000	20
1,2,3-Trichloropropane	0.125	0.118	0.124	94.4	99.2	67.0-129			4.96	20
1,2,3-Trimethylbenzene	0.125	0.115	0.117	92.0	93.6	74.0-124			1.72	20
1,2,4-Trimethylbenzene	0.125	0.114	0.115	91.2	92.0	70.0-126			0.873	20
1,3,5-Trimethylbenzene	0.125	0.113	0.115	90.4	92.0	73.0-127			1.75	20
Vinyl chloride	0.125	0.119	0.122	95.2	97.6	63.0-134			2.49	20
Xylenes, Total	0.375	0.370	0.376	98.7	100	72.0-127			1.61	20
(S) Toluene-d8				107	107	75.0-131				
(S) 4-Bromofluorobenzene				101	104	67.0-138				
(S) 1,2-Dichloroethane-d4				103	105	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1393555-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393555-01 08/24/21 19:13 • (MS) R3697121-4 08/24/21 23:39 • (MSD) R3697121-5 08/24/21 23:58

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 %
Acetone	0.625	U	0.314	0.371	50.2	59.4	1	10.0-160			16.6	40
Acrylonitrile	0.625	U	0.535	0.475	85.6	76.0	1	10.0-160			11.9	40
Benzene	0.125	0.000600	0.120	0.120	95.5	95.5	1	10.0-149			0.000	37
Bromobenzene	0.125	U	0.125	0.119	100	95.2	1	10.0-156			4.92	38
Bromodichloromethane	0.125	U	0.110	0.111	88.0	88.8	1	10.0-143			0.905	37
Bromoform	0.125	U	0.0979	0.101	78.3	80.8	1	10.0-146			3.12	36
Bromomethane	0.125	U	0.0968	0.0922	77.4	73.8	1	10.0-149			4.87	38
n-Butylbenzene	0.125	U	0.127	0.134	102	107	1	10.0-160			5.36	40
sec-Butylbenzene	0.125	U	0.126	0.129	101	103	1	10.0-159			2.35	39
tert-Butylbenzene	0.125	U	0.121	0.123	96.8	98.4	1	10.0-156			1.64	39

L1393555-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393555-01 08/24/21 19:13 • (MS) R3697121-4 08/24/21 23:39 • (MSD) R3697121-5 08/24/21 23:58

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	0.125	U	0.0937	0.0947	75.0	75.8	1	10.0-145			1.06	37
Chlorobenzene	0.125	U	0.123	0.125	98.4	100	1	10.0-152			1.61	39
Chlorodibromomethane	0.125	U	0.112	0.115	89.6	92.0	1	10.0-146			2.64	37
Chloroethane	0.125	U	0.0199	0.0313	15.9	25.0	1	10.0-146		J3	44.5	40
Chloroform	0.125	U	0.122	0.120	97.6	96.0	1	10.0-146			1.65	37
Chloromethane	0.125	U	0.113	0.117	90.4	93.6	1	10.0-159			3.48	37
2-Chlorotoluene	0.125	U	0.127	0.131	102	105	1	10.0-159			3.10	38
4-Chlorotoluene	0.125	U	0.122	0.120	97.6	96.0	1	10.0-155			1.65	39
1,2-Dibromo-3-Chloropropane	0.125	U	0.0800	0.0880	64.0	70.4	1	10.0-151			9.52	39
1,2-Dibromoethane	0.125	U	0.118	0.116	94.4	92.8	1	10.0-148			1.71	34
Dibromomethane	0.125	U	0.115	0.113	92.0	90.4	1	10.0-147			1.75	35
1,2-Dichlorobenzene	0.125	U	0.116	0.122	92.8	97.6	1	10.0-155			5.04	37
1,3-Dichlorobenzene	0.125	U	0.121	0.123	96.8	98.4	1	10.0-153			1.64	38
1,4-Dichlorobenzene	0.125	U	0.121	0.125	96.8	100	1	10.0-151			3.25	38
Dichlorodifluoromethane	0.125	U	0.152	0.158	122	126	1	10.0-160			3.87	35
1,1-Dichloroethane	0.125	U	0.113	0.116	90.4	92.8	1	10.0-147			2.62	37
1,2-Dichloroethane	0.125	U	0.117	0.120	93.6	96.0	1	10.0-148			2.53	35
1,1-Dichloroethene	0.125	U	0.0779	0.0806	62.3	64.5	1	10.0-155			3.41	37
cis-1,2-Dichloroethene	0.125	U	0.118	0.118	94.4	94.4	1	10.0-149			0.000	37
trans-1,2-Dichloroethene	0.125	U	0.0906	0.0898	72.5	71.8	1	10.0-150			0.887	37
1,2-Dichloropropane	0.125	U	0.116	0.115	92.8	92.0	1	10.0-148			0.866	37
1,1-Dichloropropene	0.125	U	0.123	0.122	98.4	97.6	1	10.0-153			0.816	35
1,3-Dichloropropane	0.125	U	0.117	0.119	93.6	95.2	1	10.0-154			1.69	35
cis-1,3-Dichloropropene	0.125	U	0.115	0.113	92.0	90.4	1	10.0-151			1.75	37
trans-1,3-Dichloropropene	0.125	U	0.115	0.118	92.0	94.4	1	10.0-148			2.58	37
2,2-Dichloropropane	0.125	U	0.0933	0.101	74.6	80.8	1	10.0-138			7.93	36
Di-isopropyl ether	0.125	U	0.113	0.114	90.4	91.2	1	10.0-147			0.881	36
Ethylbenzene	0.125	U	0.123	0.126	98.4	101	1	10.0-160			2.41	38
Hexachloro-1,3-butadiene	0.125	U	0.136	0.142	109	114	1	10.0-160			4.32	40
Isopropylbenzene	0.125	U	0.124	0.132	99.2	106	1	10.0-155			6.25	38
p-Isopropyltoluene	0.125	U	0.131	0.136	105	109	1	10.0-160			3.75	40
2-Butanone (MEK)	0.625	U	0.420	0.379	67.2	60.6	1	10.0-160			10.3	40
Methylene Chloride	0.125	U	0.0899	0.0958	71.9	76.6	1	10.0-141			6.35	37
4-Methyl-2-pentanone (MIBK)	0.625	0.0185	0.524	0.567	80.9	87.8	1	10.0-160			7.88	35
Methyl tert-butyl ether	0.125	U	0.0985	0.0968	78.8	77.4	1	11.0-147			1.74	35
Naphthalene	0.125	0.0106	0.0954	0.101	67.8	72.3	1	10.0-160			5.70	36
n-Propylbenzene	0.125	0.00160	0.133	0.131	105	104	1	10.0-158			1.52	38
Styrene	0.125	U	0.118	0.119	94.4	95.2	1	10.0-160			0.844	40
1,1,1,2-Tetrachloroethane	0.125	U	0.112	0.121	89.6	96.8	1	10.0-149			7.73	39
1,1,2,2-Tetrachloroethane	0.125	U	0.109	0.102	87.2	81.6	1	10.0-160			6.64	35

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1393555-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393555-01 08/24/21 19:13 • (MS) R3697121-4 08/24/21 23:39 • (MSD) R3697121-5 08/24/21 23:58

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	0.125	U	0.134	0.134	107	107	1	10.0-156			0.000	39
Toluene	0.125	U	0.127	0.130	102	104	1	10.0-156			2.33	38
1,1,2-Trichlorotrifluoroethane	0.125	U	0.0597	0.0656	47.8	52.5	1	10.0-160			9.42	36
1,2,3-Trichlorobenzene	0.125	U	0.0758	0.0810	60.6	64.8	1	10.0-160			6.63	40
1,2,4-Trichlorobenzene	0.125	U	0.103	0.114	82.4	91.2	1	10.0-160			10.1	40
1,1,1-Trichloroethane	0.125	U	0.0863	0.0921	69.0	73.7	1	10.0-144			6.50	35
1,1,2-Trichloroethane	0.125	U	0.120	0.124	96.0	99.2	1	10.0-160			3.28	35
Trichloroethene	0.125	U	0.131	0.134	105	107	1	10.0-156			2.26	38
Trichlorofluoromethane	0.125	U	0.0442	0.0756	35.4	60.5	1	10.0-160		J3	52.4	40
1,2,3-Trichloropropane	0.125	U	0.105	0.112	84.0	89.6	1	10.0-156			6.45	35
1,2,3-Trimethylbenzene	0.125	0.00948	0.129	0.141	95.6	105	1	10.0-160			8.89	36
1,2,4-Trimethylbenzene	0.125	0.00755	0.129	0.133	97.2	100	1	10.0-160			3.05	36
1,3,5-Trimethylbenzene	0.125	U	0.119	0.123	95.2	98.4	1	10.0-160			3.31	38
Vinyl chloride	0.125	U	0.124	0.129	99.2	103	1	10.0-160			3.95	37
Xylenes, Total	0.375	0.00523	0.376	0.392	98.9	103	1	10.0-160			4.17	38
(S) Toluene-d8					108	109		75.0-131				
(S) 4-Bromofluorobenzene					102	104		67.0-138				
(S) 1,2-Dichloroethane-d4					102	101		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3697095-1 08/26/21 14:14

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	74.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3697095-2 08/26/21 14:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.8	81.6	50.0-150	
(S) o-Terphenyl			82.3	18.0-148	

L1393983-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393983-01 08/26/21 18:06 • (MS) R3697095-3 08/26/21 18:20 • (MSD) R3697095-4 08/26/21 18:34

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	48.0	66.9	190	123	256	116	10	50.0-150	J5	J3	42.8	20
(S) o-Terphenyl					90.0	82.3		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3696845-2 08/25/21 23:39

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	63.1			14.0-149
(S) 2-Fluorobiphenyl	74.6			34.0-125
(S) p-Terphenyl-d14	94.7			23.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3696845-1 08/25/21 23:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0629	78.6	50.0-126	
Acenaphthene	0.0800	0.0623	77.9	50.0-120	
Acenaphthylene	0.0800	0.0648	81.0	50.0-120	
Benzo(a)anthracene	0.0800	0.0635	79.4	45.0-120	
Benzo(a)pyrene	0.0800	0.0555	69.4	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0637	79.6	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0613	76.6	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0627	78.4	49.0-125	
Chrysene	0.0800	0.0632	79.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0624	78.0	47.0-125	
Fluoranthene	0.0800	0.0611	76.4	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3696845-1 08/25/21 23:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0628	78.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0618	77.3	46.0-125	
Naphthalene	0.0800	0.0627	78.4	50.0-120	
Phenanthrene	0.0800	0.0639	79.9	47.0-120	
Pyrene	0.0800	0.0639	79.9	43.0-123	
1-Methylnaphthalene	0.0800	0.0628	78.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0602	75.3	50.0-120	
2-Chloronaphthalene	0.0800	0.0615	76.9	50.0-120	
(S) Nitrobenzene-d5			71.1	14.0-149	
(S) 2-Fluorobiphenyl			78.1	34.0-125	
(S) p-Terphenyl-d14			97.0	23.0-120	

L1393612-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393612-01 08/26/21 02:50 • (MS) R3696845-3 08/26/21 03:07 • (MSD) R3696845-4 08/26/21 03:25

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	0.0465	0.0464	59.3	58.0	1	10.0-145			0.215	30
Acenaphthene	0.0784	U	0.0465	0.0457	59.3	57.1	1	14.0-127			1.74	27
Acenaphthylene	0.0784	U	0.0507	0.0490	64.7	61.3	1	21.0-124			3.41	25
Benzo(a)anthracene	0.0784	0.00353	0.0435	0.0452	51.0	52.1	1	10.0-139			3.83	30
Benzo(a)pyrene	0.0784	0.00418	0.0404	0.0427	46.2	48.2	1	10.0-141			5.54	31
Benzo(b)fluoranthene	0.0784	0.00438	0.0408	0.0429	46.5	48.2	1	10.0-140			5.02	36
Benzo(g,h,i)perylene	0.0784	0.00383	0.0368	0.0389	42.1	43.8	1	10.0-140			5.55	33
Benzo(k)fluoranthene	0.0784	U	0.0401	0.0422	51.1	52.7	1	10.0-137			5.10	31
Chrysene	0.0784	0.00344	0.0448	0.0470	52.8	54.5	1	10.0-145			4.79	30
Dibenz(a,h)anthracene	0.0784	U	0.0399	0.0424	50.9	53.0	1	10.0-132			6.08	31
Fluoranthene	0.0784	0.00363	0.0428	0.0436	50.0	50.0	1	10.0-153			1.85	33
Fluorene	0.0784	U	0.0461	0.0454	58.8	56.8	1	11.0-130			1.53	29
Indeno(1,2,3-cd)pyrene	0.0784	0.00251	0.0376	0.0405	44.8	47.5	1	10.0-137			7.43	32
Naphthalene	0.0784	U	0.0544	0.0493	69.4	61.6	1	10.0-135			9.84	27
Phenanthrene	0.0784	0.00436	0.0452	0.0448	52.1	50.5	1	10.0-144			0.889	31
Pyrene	0.0784	0.00632	0.0434	0.0440	47.3	47.1	1	10.0-148			1.37	35
1-Methylnaphthalene	0.0784	U	0.0496	0.0473	62.5	58.4	1	10.0-142			4.75	28
2-Methylnaphthalene	0.0784	U	0.0494	0.0460	62.1	56.6	1	10.0-137			7.13	28
2-Chloronaphthalene	0.0784	U	0.0479	0.0467	61.1	58.3	1	29.0-120			2.54	24
(S) Nitrobenzene-d5					64.5	62.2		14.0-149				
(S) 2-Fluorobiphenyl					63.4	58.8		34.0-125				
(S) p-Terphenyl-d14					75.3	72.1		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.

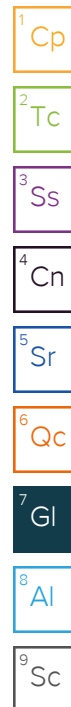
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Abbreviations and Definitions

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.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

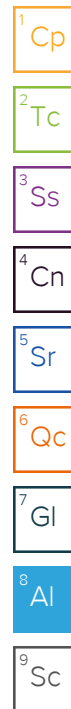
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Environmental
Works

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



1038

Report to:

Adam Kubat

Email To:

akubat@environmentalworks.com

Project Description:

Boomslang

City/State

Collected: CO

Please Circle:
PT MT CT ET

Phone:

507-475-2825

Client Project #

Lab Project #

Collected by (print):

Site/Facility ID #

Boomslang

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
☒ Three Day

Date Results Needed

Thursday, 8/26/21

No.
of
Cntrs

Immediately
Packed on Ice N ☐ Y ☒

Sample ID

Comp/Grab

Matrix*

Depth

Date

Time

Cntrs

SW-1

soil

8-20-21

947

4

SW-2

953

SW-3

955

SW-4

1000

BS-1

949-0102

FS-1

1120

SW-5

1010

* 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 3309 1453

Relinquished by: (Signature)

Date:

8-20-21

Time:

1560

Received by: (Signature)

K. Robertson

Trip Blank Received: Yes/No

HCL/MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

T. Robertson

Temp: 72°C

Bottles Received: 5.7±0.5.7 28

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

T. Robertson

Date:

8/21/21

Time:

9:15

Hold:

Condition:

NCF 100

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

If preservation required by Login: Date/Time

Environmental Works Inc

Sample Delivery Group: L1409348
Samples Received: 09/25/2021
Project Number: 212500-C1
Description: Taproot-Boomslang 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

TABLE OF CONTENTS

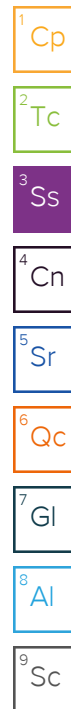
Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	8
Sr: Sample Results	9
SW6-4.5 L1409348-01	9
SW7-6 L1409348-02	11
SW8-4 L1409348-03	13
SW9-5 L1409348-04	15
FS2-10 L1409348-05	17
SW10-4 L1409348-06	19
SW11-6 L1409348-07	21
SW12-3 L1409348-08	23
SW13-3.5 L1409348-09	25
SS1 L1409348-10	27
SS2 L1409348-11	29
SS3 L1409348-12	31
SS4 L1409348-13	33
SS5 L1409348-14	35
SS6 L1409348-15	37
SS7 L1409348-16	39
Qc: Quality Control Summary	41
Wet Chemistry by Method 7199	41
Wet Chemistry by Method 9045D	43
Wet Chemistry by Method 9050AMod	45
Metals (ICP) by Method 6010B	47
Metals (ICP) by Method 6010B-NE493 Ch 2	48
Metals (ICPMS) by Method 6020	49
Volatile Organic Compounds (GC) by Method 8015D/GRO	50
Volatile Organic Compounds (GC/MS) by Method 8260B	53
Semi-Volatile Organic Compounds (GC) by Method 8015M	54
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	56
Gl: Glossary of Terms	60
Al: Accreditations & Locations	61
Sc: Sample Chain of Custody	62

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

SAMPLE SUMMARY

SW6-4.5 L1409348-01 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 11:10	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:40	10/04/21 10:40	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:18	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749315	1	10/03/21 03:25	10/03/21 07:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:03	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:22	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 17:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 07:51	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 21:13	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 06:27	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 10:45	LEA	Mt. Juliet, TN



SW7-6 L1409348-02 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 11:20	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:43	10/04/21 10:43	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1748059	1	10/01/21 16:48	10/04/21 17:23	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749315	1	10/03/21 03:25	10/03/21 07:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:17	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	5	10/02/21 12:12	10/04/21 17:25	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 17:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 08:13	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 21:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 06:40	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 11:02	LEA	Mt. Juliet, TN

SW8-4 L1409348-03 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 11:25	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:45	10/04/21 10:45	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 01:46	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749315	1	10/03/21 03:25	10/03/21 07:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:19	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:28	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 17:56	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 08:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 21:52	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 06:53	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 11:20	LEA	Mt. Juliet, TN

SW9-5 L1409348-04 Solid

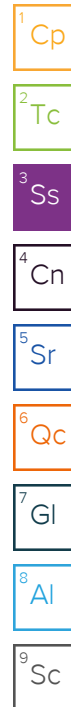
				Collected by Adam Kubat	Collected date/time 09/23/21 11:35	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:48	10/04/21 10:48	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 01:51	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749315	1	10/03/21 03:25	10/03/21 07:05	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:22	EL	Mt. Juliet, TN

SAMPLE SUMMARY

SW9-5 L1409348-04 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 11:35
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	WG1749758	5	10/02/21 12:12	10/04/21 17:31	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 17:59	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 08:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 22:11	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 07:06	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 11:37	LEA	Mt. Juliet, TN



FS2-10 L1409348-05 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 11:45
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:51	10/04/21 10:51	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 01:57	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:30	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:34	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:09	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 09:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 22:30	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 07:45	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 11:54	LEA	Mt. Juliet, TN

SW10-4 L1409348-06 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 11:55
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:54	10/04/21 10:54	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:02	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:33	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:37	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751998	1	09/28/21 19:52	10/06/21 20:03	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 22:50	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 07:58	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 12:12	LEA	Mt. Juliet, TN

SW11-6 L1409348-07 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 12:00
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 10:57	10/04/21 10:57	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:07	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:36	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	5	10/02/21 12:12	10/04/21 17:40	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:16	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 10:04	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 23:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 08:11	JAS	Mt. Juliet, TN

SAMPLE SUMMARY

SW11-6 L1409348-07 Solid

			Collected by Adam Kubat	Collected date/time 09/23/21 12:00	Received date/time 09/25/21 09:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 12:29	LEA	Mt. Juliet, TN

SW12-3 L1409348-08 Solid

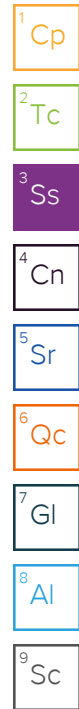
			Collected by Adam Kubat	Collected date/time 09/23/21 12:10	Received date/time 09/25/21 09:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:00	10/04/21 11:00	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:17	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:39	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	5	10/02/21 12:12	10/04/21 17:48	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:19	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 10:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 23:28	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1751791	1	10/05/21 19:14	10/06/21 06:01	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 12:46	LEA	Mt. Juliet, TN

SW13-3.5 L1409348-09 Solid

			Collected by Adam Kubat	Collected date/time 09/23/21 12:20	Received date/time 09/25/21 09:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:03	10/04/21 11:03	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:23	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:42	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	5	10/02/21 12:12	10/04/21 17:51	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:22	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 10:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/29/21 23:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/09/21 00:11	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 13:04	LEA	Mt. Juliet, TN

SS1 L1409348-10 Solid

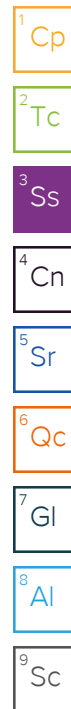
			Collected by Adam Kubat	Collected date/time 09/23/21 12:35	Received date/time 09/25/21 09:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:11	10/04/21 11:11	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:38	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:44	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:54	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:25	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 11:10	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 00:07	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/09/21 01:02	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 13:21	LEA	Mt. Juliet, TN



SAMPLE SUMMARY

SS2 L1409348-11 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 12:45	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:14	10/04/21 11:14	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:43	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1751510	1	10/05/21 12:00	10/05/21 14:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:47	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 17:57	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:29	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 11:32	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 00:26	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/09/21 01:14	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752620	1	10/07/21 01:07	10/07/21 13:39	LEA	Mt. Juliet, TN



SS3 L1409348-12 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 12:55	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:17	10/04/21 11:17	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:48	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	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:50	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 18:00	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1750800	1	09/28/21 19:52	10/04/21 11:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 00:45	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/08/21 21:27	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752627	1	10/07/21 08:27	10/07/21 17:43	AAT	Mt. Juliet, TN

SS4 L1409348-13 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 13:00	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:20	10/04/21 11:20	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 02:54	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	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:53	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 18:03	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:35	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/28/21 19:52	10/05/21 00:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 01:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/08/21 21:39	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752627	1	10/07/21 08:27	10/07/21 18:03	AAT	Mt. Juliet, TN

SS5 L1409348-14 Solid

				Collected by Adam Kubat	Collected date/time 09/23/21 13:10	Received date/time 09/25/21 09:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:23	10/04/21 11:23	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 03:04	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	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 13:56	EL	Mt. Juliet, TN

SAMPLE SUMMARY

SS5 L1409348-14 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 13:10
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	WG1749758	1	10/02/21 12:12	10/04/21 18:06	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:38	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/28/21 19:52	10/05/21 00:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 01:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/08/21 21:52	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752627	1	10/07/21 08:27	10/07/21 18:23	AAT	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

SS6 L1409348-15 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 13:20
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:25	10/04/21 11:25	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 03:09	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	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 14:04	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 18:08	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:52	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/28/21 19:52	10/05/21 01:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 01:43	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/08/21 22:04	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752627	1	10/07/21 08:27	10/07/21 18:42	AAT	Mt. Juliet, TN

⁶Qc

⁷Gl

⁸Al

⁹Sc

SS7 L1409348-16 Solid

Collected by Adam Kubat
Collected date/time 09/23/21 13:30
Received date/time 09/25/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1749763	1	10/04/21 11:28	10/04/21 11:28	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1751276	1	10/04/21 23:34	10/07/21 03:14	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	WG1749318	1	10/03/21 05:15	10/03/21 08:00	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1750153	1	10/02/21 15:46	10/03/21 14:07	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1749758	1	10/02/21 12:12	10/04/21 18:11	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1750158	5	10/02/21 15:47	10/03/21 18:55	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1751334	1	09/28/21 19:52	10/05/21 01:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1748902	1	09/28/21 19:52	09/30/21 02:03	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1752637	1	10/07/21 10:54	10/08/21 23:58	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1752627	1	10/07/21 08:27	10/07/21 19:02	AAT	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

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	2.61		1	10/04/2021 10:40	WG1749763

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 17:18	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.97	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-01 WG1751510: 7.97 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2760		10.0	1	10/03/2021 07:05	WG1749315

Sample Narrative:

L1409348-01 WG1749315: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	228	J3 J5	0.0852	0.500	1	10/03/2021 13:03	WG1750153
Cadmium	0.197	J	0.0471	0.500	1	10/03/2021 13:03	WG1750153
Copper	5.73		0.400	2.00	1	10/03/2021 13:03	WG1750153
Lead	7.54		0.208	0.500	1	10/03/2021 13:03	WG1750153
Nickel	4.99		0.132	2.00	1	10/03/2021 13:03	WG1750153
Selenium	U		0.764	2.00	1	10/03/2021 13:03	WG1750153
Silver	U	O1	0.127	1.00	1	10/03/2021 13:03	WG1750153
Zinc	20.1		0.832	5.00	1	10/03/2021 13:03	WG1750153

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	0.238		0.0167	0.200	1	10/04/2021 17:22	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.06		0.100	1.00	5	10/03/2021 17:37	WG1750158

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	0.0383	B J	0.0217	0.100	1	10/04/2021 07:51	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	88.8			77.0-120		10/04/2021 07:51	WG1750800

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	09/29/2021 21:13	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 21:13	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 21:13	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 21:13	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 21:13	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 21:13	WG1748902
(S) Toluene-d8	102			75.0-131		09/29/2021 21:13	WG1748902
(S) 4-Bromofluorobenzene	99.7			67.0-138		09/29/2021 21:13	WG1748902
(S) 1,2-Dichloroethane-d4	98.7			70.0-130		09/29/2021 21:13	WG1748902

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	10/06/2021 06:27	WG1751791
C28-C36 Motor Oil Range	0.697	J	0.274	4.00	1	10/06/2021 06:27	WG1751791
(S) o-Terphenyl	66.2			18.0-148		10/06/2021 06:27	WG1751791

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 10:45	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 10:45	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 10:45	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 10:45	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 10:45	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 10:45	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 10:45	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 10:45	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 10:45	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 10:45	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 10:45	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 10:45	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 10:45	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 10:45	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 10:45	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 10:45	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 10:45	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 10:45	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 10:45	WG1752620
(S) p-Terphenyl-d14	106			23.0-120		10/07/2021 10:45	WG1752620
(S) Nitrobenzene-d5	110			14.0-149		10/07/2021 10:45	WG1752620
(S) 2-Fluorobiphenyl	85.2			34.0-125		10/07/2021 10:45	WG1752620

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	2.35		1	10/04/2021 10:43	WG1749763

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 17:23	WG1748059

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.63	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-02 WG1751510: 8.63 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	970		10.0	1	10/03/2021 07:05	WG1749315

Sample Narrative:

L1409348-02 WG1749315: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	213		0.0852	0.500	1	10/03/2021 13:17	WG1750153
Cadmium	0.295	J	0.0471	0.500	1	10/03/2021 13:17	WG1750153
Copper	9.54		0.400	2.00	1	10/03/2021 13:17	WG1750153
Lead	10.0		0.208	0.500	1	10/03/2021 13:17	WG1750153
Nickel	9.07		0.132	2.00	1	10/03/2021 13:17	WG1750153
Selenium	1.82	J	0.764	2.00	1	10/03/2021 13:17	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:17	WG1750153
Zinc	34.6		0.832	5.00	1	10/03/2021 13:17	WG1750153

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

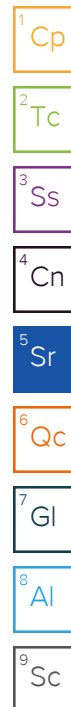
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.168	J	0.0835	1.00	5	10/04/2021 17:25	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.76		0.100	1.00	5	10/03/2021 17:53	WG1750158

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	0.0343	B J	0.0217	0.100	1	10/04/2021 08:13	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	87.5			77.0-120		10/04/2021 08:13	WG1750800



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	09/29/2021 21:32	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 21:32	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 21:32	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 21:32	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 21:32	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 21:32	WG1748902
(S) Toluene-d8	101			75.0-131		09/29/2021 21:32	WG1748902
(S) 4-Bromofluorobenzene	98.1			67.0-138		09/29/2021 21:32	WG1748902
(S) 1,2-Dichloroethane-d4	100			70.0-130		09/29/2021 21:32	WG1748902

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	10/06/2021 06:40	WG1751791
C28-C36 Motor Oil Range	0.863	J	0.274	4.00	1	10/06/2021 06:40	WG1751791
(S) o-Terphenyl	72.2			18.0-148		10/06/2021 06:40	WG1751791

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 11:02	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 11:02	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 11:02	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 11:02	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 11:02	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 11:02	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 11:02	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 11:02	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 11:02	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 11:02	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 11:02	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 11:02	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 11:02	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 11:02	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 11:02	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 11:02	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 11:02	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 11:02	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 11:02	WG1752620
(S) p-Terphenyl-d14	86.4			23.0-120		10/07/2021 11:02	WG1752620
(S) Nitrobenzene-d5	92.8			14.0-149		10/07/2021 11:02	WG1752620
(S) 2-Fluorobiphenyl	70.3			34.0-125		10/07/2021 11:02	WG1752620

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	0.213		1	10/04/2021 10:45	WG1749763

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	10/07/2021 01:46	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.57	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-03 WG1751510: 8.57 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	164		10.0	1	10/03/2021 07:05	WG1749315

Sample Narrative:

L1409348-03 WG1749315: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	262		0.0852	0.500	1	10/03/2021 13:19	WG1750153
Cadmium	0.220	J	0.0471	0.500	1	10/03/2021 13:19	WG1750153
Copper	7.88		0.400	2.00	1	10/03/2021 13:19	WG1750153
Lead	9.18		0.208	0.500	1	10/03/2021 13:19	WG1750153
Nickel	7.34		0.132	2.00	1	10/03/2021 13:19	WG1750153
Selenium	U		0.764	2.00	1	10/03/2021 13:19	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:19	WG1750153
Zinc	27.8		0.832	5.00	1	10/03/2021 13:19	WG1750153

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

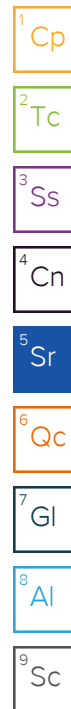
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.109	J	0.0167	0.200	1	10/04/2021 17:28	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.76		0.100	1.00	5	10/03/2021 17:56	WG1750158

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	0.0349	B J	0.0217	0.100	1	10/04/2021 08:35	WG1750800
(S) a,a,a-Trifluorotoluene(FID)	88.1			77.0-120		10/04/2021 08:35	WG1750800



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	09/29/2021 21:52	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 21:52	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 21:52	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 21:52	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 21:52	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 21:52	WG1748902
(S) Toluene-d8	101			75.0-131		09/29/2021 21:52	WG1748902
(S) 4-Bromofluorobenzene	98.9			67.0-138		09/29/2021 21:52	WG1748902
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		09/29/2021 21:52	WG1748902

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	10/06/2021 06:53	WG1751791
C28-C36 Motor Oil Range	0.368	J	0.274	4.00	1	10/06/2021 06:53	WG1751791
(S) o-Terphenyl	67.3			18.0-148		10/06/2021 06:53	WG1751791

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 11:20	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 11:20	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 11:20	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 11:20	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 11:20	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 11:20	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 11:20	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 11:20	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 11:20	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 11:20	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 11:20	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 11:20	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 11:20	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 11:20	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 11:20	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 11:20	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 11:20	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 11:20	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 11:20	WG1752620
(S) p-Terphenyl-d14	111			23.0-120		10/07/2021 11:20	WG1752620
(S) Nitrobenzene-d5	112			14.0-149		10/07/2021 11:20	WG1752620
(S) 2-Fluorobiphenyl	86.8			34.0-125		10/07/2021 11:20	WG1752620

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	3.46		1	10/04/2021 10:48	WG1749763

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	10/07/2021 01:51	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.59	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-04 WG1751510: 9.59 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	629		10.0	1	10/03/2021 07:05	WG1749315

Sample Narrative:

L1409348-04 WG1749315: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	228		0.0852	0.500	1	10/03/2021 13:22	WG1750153
Cadmium	0.272	J	0.0471	0.500	1	10/03/2021 13:22	WG1750153
Copper	9.38		0.400	2.00	1	10/03/2021 13:22	WG1750153
Lead	8.37		0.208	0.500	1	10/03/2021 13:22	WG1750153
Nickel	8.10		0.132	2.00	1	10/03/2021 13:22	WG1750153
Selenium	0.793	J	0.764	2.00	1	10/03/2021 13:22	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:22	WG1750153
Zinc	31.3		0.832	5.00	1	10/03/2021 13:22	WG1750153

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	0.567	J	0.0835	1.00	5	10/04/2021 17:31	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.99		0.100	1.00	5	10/03/2021 17:59	WG1750158

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	0.0351	B J	0.0217	0.100	1	10/04/2021 08:57	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	87.5			77.0-120		10/04/2021 08:57	WG1750800

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	09/29/2021 22:11	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 22:11	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 22:11	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 22:11	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 22:11	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 22:11	WG1748902
(S) Toluene-d8	100			75.0-131		09/29/2021 22:11	WG1748902
(S) 4-Bromofluorobenzene	101			67.0-138		09/29/2021 22:11	WG1748902
(S) 1,2-Dichloroethane-d4	98.1			70.0-130		09/29/2021 22:11	WG1748902

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	10/06/2021 07:06	WG1751791
C28-C36 Motor Oil Range	U		0.274	4.00	1	10/06/2021 07:06	WG1751791
(S) o-Terphenyl	45.8			18.0-148		10/06/2021 07:06	WG1751791

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 11:37	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 11:37	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 11:37	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 11:37	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 11:37	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 11:37	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 11:37	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 11:37	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 11:37	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 11:37	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 11:37	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 11:37	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 11:37	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 11:37	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 11:37	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 11:37	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 11:37	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 11:37	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 11:37	WG1752620
(S) p-Terphenyl-d14	72.4			23.0-120		10/07/2021 11:37	WG1752620
(S) Nitrobenzene-d5	104			14.0-149		10/07/2021 11:37	WG1752620
(S) 2-Fluorobiphenyl	70.2			34.0-125		10/07/2021 11:37	WG1752620

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	1.83		1	10/04/2021 10:51	WG1749763

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	10/07/2021 01:57	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.82	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-05 WG1751510: 7.82 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2880		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-05 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	110		0.0852	0.500	1	10/03/2021 13:30	WG1750153
Cadmium	0.293	J	0.0471	0.500	1	10/03/2021 13:30	WG1750153
Copper	11.3		0.400	2.00	1	10/03/2021 13:30	WG1750153
Lead	8.44		0.208	0.500	1	10/03/2021 13:30	WG1750153
Nickel	10.3		0.132	2.00	1	10/03/2021 13:30	WG1750153
Selenium	1.05	J	0.764	2.00	1	10/03/2021 13:30	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:30	WG1750153
Zinc	39.9		0.832	5.00	1	10/03/2021 13:30	WG1750153

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	0.289		0.0167	0.200	1	10/04/2021 17:34	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.14		0.100	1.00	5	10/03/2021 18:09	WG1750158

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	0.0434	B J	0.0217	0.100	1	10/04/2021 09:20	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	88.3			77.0-120		10/04/2021 09:20	WG1750800

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	09/29/2021 22:30	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 22:30	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 22:30	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 22:30	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 22:30	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 22:30	WG1748902
(S) Toluene-d8	103			75.0-131		09/29/2021 22:30	WG1748902
(S) 4-Bromofluorobenzene	102			67.0-138		09/29/2021 22:30	WG1748902
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		09/29/2021 22:30	WG1748902

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	10/06/2021 07:45	WG1751791
C28-C36 Motor Oil Range	U		0.274	4.00	1	10/06/2021 07:45	WG1751791
(S) o-Terphenyl	45.9			18.0-148		10/06/2021 07:45	WG1751791

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 11:54	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 11:54	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 11:54	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 11:54	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 11:54	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 11:54	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 11:54	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 11:54	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 11:54	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 11:54	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 11:54	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 11:54	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 11:54	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 11:54	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 11:54	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 11:54	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 11:54	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 11:54	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 11:54	WG1752620
(S) p-Terphenyl-d14	81.2			23.0-120		10/07/2021 11:54	WG1752620
(S) Nitrobenzene-d5	82.9			14.0-149		10/07/2021 11:54	WG1752620
(S) 2-Fluorobiphenyl	66.6			34.0-125		10/07/2021 11:54	WG1752620

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	2.56		1	10/04/2021 10:54	WG1749763

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	10/07/2021 02:02	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.49	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-06 WG1751510: 9.49 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	507		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-06 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	309		0.0852	0.500	1	10/03/2021 13:33	WG1750153
Cadmium	0.234	J	0.0471	0.500	1	10/03/2021 13:33	WG1750153
Copper	7.71		0.400	2.00	1	10/03/2021 13:33	WG1750153
Lead	8.58		0.208	0.500	1	10/03/2021 13:33	WG1750153
Nickel	7.57		0.132	2.00	1	10/03/2021 13:33	WG1750153
Selenium	U		0.764	2.00	1	10/03/2021 13:33	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:33	WG1750153
Zinc	29.4		0.832	5.00	1	10/03/2021 13:33	WG1750153

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	0.0208	J	0.0167	0.200	1	10/04/2021 17:37	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.62		0.100	1.00	5	10/03/2021 18:12	WG1750158

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	10/06/2021 20:03	WG1751998
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.1			59.0-128		10/06/2021 20:03	WG1751998

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	09/29/2021 22:50	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 22:50	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 22:50	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 22:50	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 22:50	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 22:50	WG1748902
(S) Toluene-d8	101			75.0-131		09/29/2021 22:50	WG1748902
(S) 4-Bromofluorobenzene	99.6			67.0-138		09/29/2021 22:50	WG1748902
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		09/29/2021 22:50	WG1748902

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	10/06/2021 07:58	WG1751791
C28-C36 Motor Oil Range	U		0.274	4.00	1	10/06/2021 07:58	WG1751791
(S) o-Terphenyl	61.6			18.0-148		10/06/2021 07:58	WG1751791

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 12:12	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 12:12	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 12:12	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 12:12	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 12:12	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 12:12	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 12:12	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 12:12	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 12:12	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 12:12	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 12:12	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 12:12	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 12:12	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 12:12	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 12:12	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 12:12	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 12:12	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 12:12	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 12:12	WG1752620
(S) p-Terphenyl-d14	94.6			23.0-120		10/07/2021 12:12	WG1752620
(S) Nitrobenzene-d5	94.7			14.0-149		10/07/2021 12:12	WG1752620
(S) 2-Fluorobiphenyl	73.5			34.0-125		10/07/2021 12:12	WG1752620

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	2.52		1	10/04/2021 10:57	WG1749763

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	10/07/2021 02:07	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.62	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-07 WG1751510: 9.62 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	522		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-07 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	195		0.0852	0.500	1	10/03/2021 13:36	WG1750153
Cadmium	0.233	J	0.0471	0.500	1	10/03/2021 13:36	WG1750153
Copper	7.65		0.400	2.00	1	10/03/2021 13:36	WG1750153
Lead	8.02		0.208	0.500	1	10/03/2021 13:36	WG1750153
Nickel	7.07		0.132	2.00	1	10/03/2021 13:36	WG1750153
Selenium	1.23	J	0.764	2.00	1	10/03/2021 13:36	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:36	WG1750153
Zinc	28.1		0.832	5.00	1	10/03/2021 13:36	WG1750153

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	0.269	J	0.0835	1.00	5	10/04/2021 17:40	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.29		0.100	1.00	5	10/03/2021 18:16	WG1750158

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	0.0447	B J	0.0217	0.100	1	10/04/2021 10:04	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	87.4			77.0-120		10/04/2021 10:04	WG1750800

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	09/29/2021 23:09	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 23:09	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 23:09	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 23:09	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 23:09	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 23:09	WG1748902
(S) Toluene-d8	101			75.0-131		09/29/2021 23:09	WG1748902
(S) 4-Bromofluorobenzene	97.4			67.0-138		09/29/2021 23:09	WG1748902
(S) 1,2-Dichloroethane-d4	97.8			70.0-130		09/29/2021 23:09	WG1748902

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	10/06/2021 08:11	WG1751791
C28-C36 Motor Oil Range	U		0.274	4.00	1	10/06/2021 08:11	WG1751791
(S) o-Terphenyl	60.8			18.0-148		10/06/2021 08:11	WG1751791

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 12:29	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 12:29	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 12:29	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 12:29	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 12:29	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 12:29	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 12:29	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 12:29	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 12:29	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 12:29	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 12:29	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 12:29	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 12:29	WG1752620
Naphthalene	0.00425	U	0.00408	0.0200	1	10/07/2021 12:29	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 12:29	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 12:29	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 12:29	WG1752620
2-Methylnaphthalene	0.00576	U	0.00427	0.0200	1	10/07/2021 12:29	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 12:29	WG1752620
(S) p-Terphenyl-d14	105			23.0-120		10/07/2021 12:29	WG1752620
(S) Nitrobenzene-d5	97.3			14.0-149		10/07/2021 12:29	WG1752620
(S) 2-Fluorobiphenyl	81.6			34.0-125		10/07/2021 12:29	WG1752620

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	2.03		1	10/04/2021 11:00	WG1749763

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	10/07/2021 02:17	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.43	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-08 WG1751510: 9.43 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	464		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-08 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	218		0.0852	0.500	1	10/03/2021 13:39	WG1750153
Cadmium	0.261	J	0.0471	0.500	1	10/03/2021 13:39	WG1750153
Copper	9.37		0.400	2.00	1	10/03/2021 13:39	WG1750153
Lead	8.48		0.208	0.500	1	10/03/2021 13:39	WG1750153
Nickel	8.89		0.132	2.00	1	10/03/2021 13:39	WG1750153
Selenium	U		0.764	2.00	1	10/03/2021 13:39	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:39	WG1750153
Zinc	33.4		0.832	5.00	1	10/03/2021 13:39	WG1750153

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.220	J	0.0835	1.00	5	10/04/2021 17:48	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.90		0.100	1.00	5	10/03/2021 18:19	WG1750158

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	0.0402	B J	0.0217	0.100	1	10/04/2021 10:26	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	88.3			77.0-120		10/04/2021 10:26	WG1750800

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	09/29/2021 23:28	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 23:28	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 23:28	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/29/2021 23:28	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/29/2021 23:28	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 23:28	WG1748902
(S) Toluene-d8	104			75.0-131		09/29/2021 23:28	WG1748902
(S) 4-Bromofluorobenzene	99.6			67.0-138		09/29/2021 23:28	WG1748902
(S) 1,2-Dichloroethane-d4	97.9			70.0-130		09/29/2021 23:28	WG1748902

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	10/06/2021 06:01	WG1751791
C28-C36 Motor Oil Range	U		0.274	4.00	1	10/06/2021 06:01	WG1751791
(S) o-Terphenyl	40.4			18.0-148		10/06/2021 06:01	WG1751791

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 12:46	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 12:46	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 12:46	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 12:46	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 12:46	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 12:46	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 12:46	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 12:46	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 12:46	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 12:46	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 12:46	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 12:46	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 12:46	WG1752620
Naphthalene	0.00526	U	0.00408	0.0200	1	10/07/2021 12:46	WG1752620
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 12:46	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 12:46	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 12:46	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 12:46	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 12:46	WG1752620
(S) p-Terphenyl-d14	82.4			23.0-120		10/07/2021 12:46	WG1752620
(S) Nitrobenzene-d5	90.8			14.0-149		10/07/2021 12:46	WG1752620
(S) 2-Fluorobiphenyl	67.6			34.0-125		10/07/2021 12:46	WG1752620

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	4.77		1	10/04/2021 11:03	WG1749763

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	10/07/2021 02:23	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.88	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-09 WG1751510: 8.88 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	858		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-09 WG1749318: 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	10/03/2021 13:42	WG1750153
Cadmium	0.260	J	0.0471	0.500	1	10/03/2021 13:42	WG1750153
Copper	9.03		0.400	2.00	1	10/03/2021 13:42	WG1750153
Lead	7.59		0.208	0.500	1	10/03/2021 13:42	WG1750153
Nickel	8.18		0.132	2.00	1	10/03/2021 13:42	WG1750153
Selenium	1.25	J	0.764	2.00	1	10/03/2021 13:42	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:42	WG1750153
Zinc	32.0		0.832	5.00	1	10/03/2021 13:42	WG1750153

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	0.411	J	0.0835	1.00	5	10/04/2021 17:51	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.68		0.100	1.00	5	10/03/2021 18:22	WG1750158

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	2.10		0.0217	0.100	1	10/04/2021 10:48	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.4			77.0-120		10/04/2021 10:48	WG1750800

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	09/29/2021 23:48	WG1748902
Toluene	U		0.00130	0.00500	1	09/29/2021 23:48	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/29/2021 23:48	WG1748902
Xylenes, Total	0.00104	U	0.000880	0.00650	1	09/29/2021 23:48	WG1748902
1,2,4-Trimethylbenzene	0.00535		0.00158	0.00500	1	09/29/2021 23:48	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/29/2021 23:48	WG1748902
(S) Toluene-d8	101			75.0-131		09/29/2021 23:48	WG1748902
(S) 4-Bromofluorobenzene	105			67.0-138		09/29/2021 23:48	WG1748902
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		09/29/2021 23:48	WG1748902

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	63.6	J3 J6	1.61	4.00	1	10/09/2021 00:11	WG1752637
C28-C36 Motor Oil Range	44.1		0.274	4.00	1	10/09/2021 00:11	WG1752637
(S) o-Terphenyl	59.7			18.0-148		10/09/2021 00:11	WG1752637

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 13:04	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 13:04	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 13:04	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 13:04	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 13:04	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 13:04	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 13:04	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 13:04	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 13:04	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 13:04	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 13:04	WG1752620
Fluorene	0.00237	U	0.00205	0.00600	1	10/07/2021 13:04	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 13:04	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 13:04	WG1752620
Phenanthrene	0.0171		0.00231	0.00600	1	10/07/2021 13:04	WG1752620
Pyrene	0.00233	U	0.00200	0.00600	1	10/07/2021 13:04	WG1752620
1-Methylnaphthalene	0.00545	U	0.00449	0.0200	1	10/07/2021 13:04	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 13:04	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 13:04	WG1752620
(S) p-Terphenyl-d14	86.5			23.0-120		10/07/2021 13:04	WG1752620
(S) Nitrobenzene-d5	108			14.0-149		10/07/2021 13:04	WG1752620
(S) 2-Fluorobiphenyl	65.2			34.0-125		10/07/2021 13:04	WG1752620

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	17.9		1	10/04/2021 11:11	WG1749763

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	10/07/2021 02:38	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.80	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-10 WG1751510: 7.8 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	4000		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-10 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	166		0.0852	0.500	1	10/03/2021 13:44	WG1750153
Cadmium	0.289	J	0.0471	0.500	1	10/03/2021 13:44	WG1750153
Copper	8.40		0.400	2.00	1	10/03/2021 13:44	WG1750153
Lead	9.52		0.208	0.500	1	10/03/2021 13:44	WG1750153
Nickel	6.98		0.132	2.00	1	10/03/2021 13:44	WG1750153
Selenium	0.877	J	0.764	2.00	1	10/03/2021 13:44	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:44	WG1750153
Zinc	32.1		0.832	5.00	1	10/03/2021 13:44	WG1750153

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	1.31		0.0167	0.200	1	10/04/2021 17:54	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.02		0.100	1.00	5	10/03/2021 18:25	WG1750158

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	0.0691	B J	0.0217	0.100	1	10/04/2021 11:10	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	85.5			77.0-120		10/04/2021 11:10	WG1750800

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 00:07	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 00:07	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 00:07	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 00:07	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 00:07	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 00:07	WG1748902
(S) Toluene-d8	101			75.0-131		09/30/2021 00:07	WG1748902
(S) 4-Bromofluorobenzene	98.4			67.0-138		09/30/2021 00:07	WG1748902
(S) 1,2-Dichloroethane-d4	97.5			70.0-130		09/30/2021 00:07	WG1748902

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	22.6		1.61	4.00	1	10/09/2021 01:02	WG1752637
C28-C36 Motor Oil Range	56.2		0.274	4.00	1	10/09/2021 01:02	WG1752637
(S) o-Terphenyl	67.8			18.0-148		10/09/2021 01:02	WG1752637

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 13:21	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 13:21	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 13:21	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 13:21	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 13:21	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 13:21	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 13:21	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 13:21	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 13:21	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 13:21	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 13:21	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 13:21	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 13:21	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 13:21	WG1752620
Phenanthrene	0.00639		0.00231	0.00600	1	10/07/2021 13:21	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 13:21	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 13:21	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 13:21	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 13:21	WG1752620
(S) p-Terphenyl-d14	79.3			23.0-120		10/07/2021 13:21	WG1752620
(S) Nitrobenzene-d5	84.7			14.0-149		10/07/2021 13:21	WG1752620
(S) 2-Fluorobiphenyl	65.1			34.0-125		10/07/2021 13:21	WG1752620

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	0.296		1	10/04/2021 11:14	WG1749763

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	10/07/2021 02:43	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.90	T8	1	10/05/2021 14:00	WG1751510

Sample Narrative:

L1409348-11 WG1751510: 7.9 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3480		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-11 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	139		0.0852	0.500	1	10/03/2021 13:47	WG1750153
Cadmium	0.281	J	0.0471	0.500	1	10/03/2021 13:47	WG1750153
Copper	8.54		0.400	2.00	1	10/03/2021 13:47	WG1750153
Lead	9.67		0.208	0.500	1	10/03/2021 13:47	WG1750153
Nickel	6.95		0.132	2.00	1	10/03/2021 13:47	WG1750153
Selenium	0.994	J	0.764	2.00	1	10/03/2021 13:47	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:47	WG1750153
Zinc	32.6		0.832	5.00	1	10/03/2021 13:47	WG1750153

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	0.249		0.0167	0.200	1	10/04/2021 17:57	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.28		0.100	1.00	5	10/03/2021 18:29	WG1750158

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	0.0504	B J	0.0217	0.100	1	10/04/2021 11:32	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	90.7			77.0-120		10/04/2021 11:32	WG1750800

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 00:26	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 00:26	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 00:26	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 00:26	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 00:26	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 00:26	WG1748902
(S) Toluene-d8	103			75.0-131		09/30/2021 00:26	WG1748902
(S) 4-Bromofluorobenzene	101			67.0-138		09/30/2021 00:26	WG1748902
(S) 1,2-Dichloroethane-d4	97.2			70.0-130		09/30/2021 00:26	WG1748902

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	12.5		1.61	4.00	1	10/09/2021 01:14	WG1752637
C28-C36 Motor Oil Range	40.0		0.274	4.00	1	10/09/2021 01:14	WG1752637
(S) o-Terphenyl	74.7			18.0-148		10/09/2021 01:14	WG1752637

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 13:39	WG1752620
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 13:39	WG1752620
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 13:39	WG1752620
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 13:39	WG1752620
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 13:39	WG1752620
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 13:39	WG1752620
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 13:39	WG1752620
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 13:39	WG1752620
Chrysene	U		0.00232	0.00600	1	10/07/2021 13:39	WG1752620
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 13:39	WG1752620
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 13:39	WG1752620
Fluorene	U		0.00205	0.00600	1	10/07/2021 13:39	WG1752620
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 13:39	WG1752620
Naphthalene	U		0.00408	0.0200	1	10/07/2021 13:39	WG1752620
Phenanthrene	0.00874		0.00231	0.00600	1	10/07/2021 13:39	WG1752620
Pyrene	U		0.00200	0.00600	1	10/07/2021 13:39	WG1752620
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 13:39	WG1752620
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 13:39	WG1752620
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 13:39	WG1752620
(S) p-Terphenyl-d14	68.6			23.0-120		10/07/2021 13:39	WG1752620
(S) Nitrobenzene-d5	82.6			14.0-149		10/07/2021 13:39	WG1752620
(S) 2-Fluorobiphenyl	60.7			34.0-125		10/07/2021 13:39	WG1752620

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	1.05		1	10/04/2021 11:17	WG1749763

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	10/07/2021 02:48	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.31	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409348-12 WG1752135: 8.31 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	226		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-12 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	175		0.0852	0.500	1	10/03/2021 13:50	WG1750153
Cadmium	0.326	J	0.0471	0.500	1	10/03/2021 13:50	WG1750153
Copper	9.39		0.400	2.00	1	10/03/2021 13:50	WG1750153
Lead	9.51		0.208	0.500	1	10/03/2021 13:50	WG1750153
Nickel	8.36		0.132	2.00	1	10/03/2021 13:50	WG1750153
Selenium	0.960	J	0.764	2.00	1	10/03/2021 13:50	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:50	WG1750153
Zinc	31.4		0.832	5.00	1	10/03/2021 13:50	WG1750153

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	0.180	J	0.0167	0.200	1	10/04/2021 18:00	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.74		0.100	1.00	5	10/03/2021 18:32	WG1750158

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	0.0397	B J	0.0217	0.100	1	10/04/2021 11:53	WG1750800
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	88.4			77.0-120		10/04/2021 11:53	WG1750800

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 00:45	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 00:45	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 00:45	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 00:45	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 00:45	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 00:45	WG1748902
(S) Toluene-d8	101			75.0-131		09/30/2021 00:45	WG1748902
(S) 4-Bromofluorobenzene	99.4			67.0-138		09/30/2021 00:45	WG1748902
(S) 1,2-Dichloroethane-d4	97.1			70.0-130		09/30/2021 00:45	WG1748902

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	10/08/2021 21:27	WG1752637
C28-C36 Motor Oil Range	3.39	B J	0.274	4.00	1	10/08/2021 21:27	WG1752637
(S) o-Terphenyl	54.8			18.0-148		10/08/2021 21:27	WG1752637

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 17:43	WG1752627
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 17:43	WG1752627
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 17:43	WG1752627
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 17:43	WG1752627
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 17:43	WG1752627
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 17:43	WG1752627
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 17:43	WG1752627
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 17:43	WG1752627
Chrysene	U		0.00232	0.00600	1	10/07/2021 17:43	WG1752627
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 17:43	WG1752627
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 17:43	WG1752627
Fluorene	U		0.00205	0.00600	1	10/07/2021 17:43	WG1752627
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 17:43	WG1752627
Naphthalene	U		0.00408	0.0200	1	10/07/2021 17:43	WG1752627
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 17:43	WG1752627
Pyrene	U		0.00200	0.00600	1	10/07/2021 17:43	WG1752627
1-Methylnaphthalene	0.00451	U J	0.00449	0.0200	1	10/07/2021 17:43	WG1752627
2-Methylnaphthalene	0.00652	U J	0.00427	0.0200	1	10/07/2021 17:43	WG1752627
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 17:43	WG1752627
(S) p-Terphenyl-d14	91.1			23.0-120		10/07/2021 17:43	WG1752627
(S) Nitrobenzene-d5	86.0			14.0-149		10/07/2021 17:43	WG1752627
(S) 2-Fluorobiphenyl	74.7			34.0-125		10/07/2021 17:43	WG1752627

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	0.230		1	10/04/2021 11:20	WG1749763

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	10/07/2021 02:54	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.63	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409348-13 WG1752135: 8.63 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	203		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-13 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	292		0.0852	0.500	1	10/03/2021 13:53	WG1750153
Cadmium	0.241	J	0.0471	0.500	1	10/03/2021 13:53	WG1750153
Copper	5.83		0.400	2.00	1	10/03/2021 13:53	WG1750153
Lead	8.33		0.208	0.500	1	10/03/2021 13:53	WG1750153
Nickel	5.47		0.132	2.00	1	10/03/2021 13:53	WG1750153
Selenium	U		0.764	2.00	1	10/03/2021 13:53	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:53	WG1750153
Zinc	21.7		0.832	5.00	1	10/03/2021 13:53	WG1750153

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	0.183	J	0.0167	0.200	1	10/04/2021 18:03	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.34		0.100	1.00	5	10/03/2021 18:35	WG1750158

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 00:19	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100			77.0-120		10/05/2021 00:19	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 01:05	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 01:05	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 01:05	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 01:05	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 01:05	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 01:05	WG1748902
(S) Toluene-d8	103			75.0-131		09/30/2021 01:05	WG1748902
(S) 4-Bromofluorobenzene	101			67.0-138		09/30/2021 01:05	WG1748902
(S) 1,2-Dichloroethane-d4	97.5			70.0-130		09/30/2021 01:05	WG1748902

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1.86	J	1.61	4.00	1	10/08/2021 21:39	WG1752637
C28-C36 Motor Oil Range	3.94	B J	0.274	4.00	1	10/08/2021 21:39	WG1752637
(S) o-Terphenyl	80.2			18.0-148		10/08/2021 21:39	WG1752637

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 18:03	WG1752627
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 18:03	WG1752627
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 18:03	WG1752627
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 18:03	WG1752627
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 18:03	WG1752627
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 18:03	WG1752627
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 18:03	WG1752627
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 18:03	WG1752627
Chrysene	U		0.00232	0.00600	1	10/07/2021 18:03	WG1752627
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 18:03	WG1752627
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 18:03	WG1752627
Fluorene	U		0.00205	0.00600	1	10/07/2021 18:03	WG1752627
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 18:03	WG1752627
Naphthalene	U		0.00408	0.0200	1	10/07/2021 18:03	WG1752627
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 18:03	WG1752627
Pyrene	U		0.00200	0.00600	1	10/07/2021 18:03	WG1752627
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 18:03	WG1752627
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 18:03	WG1752627
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 18:03	WG1752627
(S) p-Terphenyl-d14	110			23.0-120		10/07/2021 18:03	WG1752627
(S) Nitrobenzene-d5	91.9			14.0-149		10/07/2021 18:03	WG1752627
(S) 2-Fluorobiphenyl	87.1			34.0-125		10/07/2021 18:03	WG1752627

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	1.72		1	10/04/2021 11:23	WG1749763

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	10/07/2021 03:04	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.43	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409348-14 WG1752135: 8.43 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	327		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-14 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	188		0.0852	0.500	1	10/03/2021 13:56	WG1750153
Cadmium	0.213	J	0.0471	0.500	1	10/03/2021 13:56	WG1750153
Copper	7.65		0.400	2.00	1	10/03/2021 13:56	WG1750153
Lead	8.91		0.208	0.500	1	10/03/2021 13:56	WG1750153
Nickel	6.31		0.132	2.00	1	10/03/2021 13:56	WG1750153
Selenium	1.02	J	0.764	2.00	1	10/03/2021 13:56	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 13:56	WG1750153
Zinc	23.5		0.832	5.00	1	10/03/2021 13:56	WG1750153

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	0.291		0.0167	0.200	1	10/04/2021 18:06	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.55		0.100	1.00	5	10/03/2021 18:38	WG1750158

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 00:44	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.2			77.0-120		10/05/2021 00:44	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 01:24	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 01:24	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 01:24	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 01:24	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 01:24	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 01:24	WG1748902
(S) Toluene-d8	101			75.0-131		09/30/2021 01:24	WG1748902
(S) 4-Bromofluorobenzene	96.6			67.0-138		09/30/2021 01:24	WG1748902
(S) 1,2-Dichloroethane-d4	92.9			70.0-130		09/30/2021 01:24	WG1748902

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	2.16	<u>L</u>	1.61	4.00	1	10/08/2021 21:52	WG1752637
C28-C36 Motor Oil Range	5.64	<u>B</u>	0.274	4.00	1	10/08/2021 21:52	WG1752637
(S) o-Terphenyl	77.4			18.0-148		10/08/2021 21:52	WG1752637

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 18:23	WG1752627
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 18:23	WG1752627
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 18:23	WG1752627
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 18:23	WG1752627
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 18:23	WG1752627
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 18:23	WG1752627
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 18:23	WG1752627
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 18:23	WG1752627
Chrysene	U		0.00232	0.00600	1	10/07/2021 18:23	WG1752627
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 18:23	WG1752627
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 18:23	WG1752627
Fluorene	U		0.00205	0.00600	1	10/07/2021 18:23	WG1752627
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 18:23	WG1752627
Naphthalene	U		0.00408	0.0200	1	10/07/2021 18:23	WG1752627
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 18:23	WG1752627
Pyrene	U		0.00200	0.00600	1	10/07/2021 18:23	WG1752627
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 18:23	WG1752627
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 18:23	WG1752627
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 18:23	WG1752627
(S) p-Terphenyl-d14	107			23.0-120		10/07/2021 18:23	WG1752627
(S) Nitrobenzene-d5	89.6			14.0-149		10/07/2021 18:23	WG1752627
(S) 2-Fluorobiphenyl	84.1			34.0-125		10/07/2021 18:23	WG1752627

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	0.923		1	10/04/2021 11:25	WG1749763

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	10/07/2021 03:09	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.45	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409348-15 WG1752135: 8.45 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	277		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-15 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	242		0.0852	0.500	1	10/03/2021 14:04	WG1750153
Cadmium	0.279	J	0.0471	0.500	1	10/03/2021 14:04	WG1750153
Copper	8.03		0.400	2.00	1	10/03/2021 14:04	WG1750153
Lead	11.3		0.208	0.500	1	10/03/2021 14:04	WG1750153
Nickel	7.78		0.132	2.00	1	10/03/2021 14:04	WG1750153
Selenium	1.05	J	0.764	2.00	1	10/03/2021 14:04	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 14:04	WG1750153
Zinc	28.8		0.832	5.00	1	10/03/2021 14:04	WG1750153

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

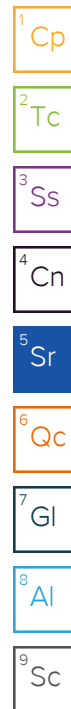
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.166	J	0.0167	0.200	1	10/04/2021 18:08	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.95		0.100	1.00	5	10/03/2021 18:52	WG1750158

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 01:08	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100			77.0-120		10/05/2021 01:08	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 01:43	WG1748902
Toluene	U		0.00130	0.00500	1	09/30/2021 01:43	WG1748902
Ethylbenzene	U		0.000737	0.00250	1	09/30/2021 01:43	WG1748902
Xylenes, Total	U		0.000880	0.00650	1	09/30/2021 01:43	WG1748902
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	09/30/2021 01:43	WG1748902
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	09/30/2021 01:43	WG1748902
(S) Toluene-d8	103			75.0-131		09/30/2021 01:43	WG1748902
(S) 4-Bromofluorobenzene	102			67.0-138		09/30/2021 01:43	WG1748902
(S) 1,2-Dichloroethane-d4	101			70.0-130		09/30/2021 01:43	WG1748902

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	2.13	<u>J</u>	1.61	4.00	1	10/08/2021 22:04	WG1752637
C28-C36 Motor Oil Range	5.95	<u>B</u>	0.274	4.00	1	10/08/2021 22:04	WG1752637
(S) o-Terphenyl	82.3			18.0-148		10/08/2021 22:04	WG1752637

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 18:42	WG1752627
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 18:42	WG1752627
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 18:42	WG1752627
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 18:42	WG1752627
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 18:42	WG1752627
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 18:42	WG1752627
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 18:42	WG1752627
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 18:42	WG1752627
Chrysene	U		0.00232	0.00600	1	10/07/2021 18:42	WG1752627
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 18:42	WG1752627
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 18:42	WG1752627
Fluorene	U		0.00205	0.00600	1	10/07/2021 18:42	WG1752627
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 18:42	WG1752627
Naphthalene	U		0.00408	0.0200	1	10/07/2021 18:42	WG1752627
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 18:42	WG1752627
Pyrene	U		0.00200	0.00600	1	10/07/2021 18:42	WG1752627
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 18:42	WG1752627
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 18:42	WG1752627
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 18:42	WG1752627
(S) p-Terphenyl-d14	89.4			23.0-120		10/07/2021 18:42	WG1752627
(S) Nitrobenzene-d5	74.7			14.0-149		10/07/2021 18:42	WG1752627
(S) 2-Fluorobiphenyl	70.7			34.0-125		10/07/2021 18:42	WG1752627

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	3.75		1	10/04/2021 11:28	WG1749763

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	10/07/2021 03:14	WG1751276

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.24	T8	1	10/06/2021 10:00	WG1752135

Sample Narrative:

L1409348-16 WG1752135: 8.24 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	966		10.0	1	10/03/2021 08:00	WG1749318

Sample Narrative:

L1409348-16 WG1749318: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	165		0.0852	0.500	1	10/03/2021 14:07	WG1750153
Cadmium	0.389	J	0.0471	0.500	1	10/03/2021 14:07	WG1750153
Copper	16.0		0.400	2.00	1	10/03/2021 14:07	WG1750153
Lead	12.1		0.208	0.500	1	10/03/2021 14:07	WG1750153
Nickel	11.4		0.132	2.00	1	10/03/2021 14:07	WG1750153
Selenium	1.55	J	0.764	2.00	1	10/03/2021 14:07	WG1750153
Silver	U		0.127	1.00	1	10/03/2021 14:07	WG1750153
Zinc	39.7		0.832	5.00	1	10/03/2021 14:07	WG1750153

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	0.291		0.0167	0.200	1	10/04/2021 18:11	WG1749758

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.59		0.100	1.00	5	10/03/2021 18:55	WG1750158

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 01:31	WG1751334
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	101			77.0-120		10/05/2021 01:31	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	<u>J3</u>	0.000467	0.00100	1	09/30/2021 02:03	WG1748902
Toluene	U	<u>J3</u>	0.00130	0.00500	1	09/30/2021 02:03	WG1748902
Ethylbenzene	U	<u>J3</u>	0.000737	0.00250	1	09/30/2021 02:03	WG1748902
Xylenes, Total	U	<u>J3</u>	0.000880	0.00650	1	09/30/2021 02:03	WG1748902
1,2,4-Trimethylbenzene	U	<u>J3</u>	0.00158	0.00500	1	09/30/2021 02:03	WG1748902
1,3,5-Trimethylbenzene	U	<u>J3</u>	0.00200	0.00500	1	09/30/2021 02:03	WG1748902
(S) Toluene-d8	101			75.0-131		09/30/2021 02:03	WG1748902
(S) 4-Bromofluorobenzene	100			67.0-138		09/30/2021 02:03	WG1748902
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		09/30/2021 02:03	WG1748902

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1.92	<u>J</u>	1.61	4.00	1	10/08/2021 23:58	WG1752637
C28-C36 Motor Oil Range	3.42	<u>B J</u>	0.274	4.00	1	10/08/2021 23:58	WG1752637
(S) o-Terphenyl	73.2			18.0-148		10/08/2021 23:58	WG1752637

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 19:02	WG1752627
Acenaphthene	U		0.00209	0.00600	1	10/07/2021 19:02	WG1752627
Acenaphthylene	U		0.00216	0.00600	1	10/07/2021 19:02	WG1752627
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2021 19:02	WG1752627
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2021 19:02	WG1752627
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2021 19:02	WG1752627
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/07/2021 19:02	WG1752627
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2021 19:02	WG1752627
Chrysene	U		0.00232	0.00600	1	10/07/2021 19:02	WG1752627
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2021 19:02	WG1752627
Fluoranthene	U		0.00227	0.00600	1	10/07/2021 19:02	WG1752627
Fluorene	U		0.00205	0.00600	1	10/07/2021 19:02	WG1752627
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2021 19:02	WG1752627
Naphthalene	U		0.00408	0.0200	1	10/07/2021 19:02	WG1752627
Phenanthrene	U		0.00231	0.00600	1	10/07/2021 19:02	WG1752627
Pyrene	U		0.00200	0.00600	1	10/07/2021 19:02	WG1752627
1-Methylnaphthalene	U		0.00449	0.0200	1	10/07/2021 19:02	WG1752627
2-Methylnaphthalene	U		0.00427	0.0200	1	10/07/2021 19:02	WG1752627
2-Chloronaphthalene	U		0.00466	0.0200	1	10/07/2021 19:02	WG1752627
(S) p-Terphenyl-d14	105			23.0-120		10/07/2021 19:02	WG1752627
(S) Nitrobenzene-d5	84.0			14.0-149		10/07/2021 19:02	WG1752627
(S) 2-Fluorobiphenyl	80.9			34.0-125		10/07/2021 19:02	WG1752627

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

Method Blank (MB)

(MB) R3713493-1 10/07/21 00:34

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

L1409348-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1409348-07 10/07/21 02:07 • (DUP) R3713493-7 10/07/21 02:12

	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

L1409348-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1409348-13 10/07/21 02:54 • (DUP) R3713493-8 10/07/21 02:59

	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) R3713493-2 10/07/21 00:39

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.99	99.9	80.0-120	

L1403685-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1403685-14 10/07/21 00:44 • (MS) R3713493-3 10/07/21 00:49 • (MSD) R3713493-4 10/07/21 00:54

	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	0.352	22.0	21.7	108	107	1	75.0-125			1.22	20

L1403685-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1403685-14 10/07/21 00:44 • (MS) R3713493-5 10/07/21 01:00

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	648	0.352	690	106	50	75.0-125	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1409055-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1409055-02 10/05/21 14:00 • (DUP) R3712629-2 10/05/21 14:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.83	7.82	1	0.128		1

Sample Narrative:

OS: 7.83 at 20.4C

DUP: 7.82 at 20.8C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1409348-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1409348-06 10/05/21 14:00 • (DUP) R3712629-3 10/05/21 14:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	9.49	9.49	1	0.000		1

Sample Narrative:

OS: 9.49 at 20.3C

DUP: 9.49 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R3712629-1 10/05/21 14:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 20.5C

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) R3711750-1 10/03/21 07:05

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

L1407458-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1407458-01 10/03/21 07:05 • (DUP) R3711750-3 10/03/21 07:05

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	11200	11300	1	0.979		20

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

L1409340-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1409340-03 10/03/21 07:05 • (DUP) R3711750-4 10/03/21 07:05

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	635	620	1	2.39		20

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

Laboratory Control Sample (LCS)

(LCS) R3711750-2 10/03/21 07:05

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	275	103	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) R3711765-1 10/03/21 08:00

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

Sample Narrative:

BLANK: at 25C

L1409348-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1409348-11 10/03/21 08:00 • (DUP) R3711765-3 10/03/21 08:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3480	3370	1	3.21		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1409431-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1409431-02 10/03/21 08:00 • (DUP) R3711765-4 10/03/21 08:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	329	324	1	1.53		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3711765-2 10/03/21 08:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	274	102	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3711937-1 10/03/21 12:58

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	1.96	J	0.832	5.00

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3711937-2 10/03/21 13:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	101	101	80.0-120	
Cadmium	100	94.6	94.6	80.0-120	
Copper	100	96.2	96.2	80.0-120	
Lead	100	95.9	95.9	80.0-120	
Nickel	100	97.3	97.3	80.0-120	
Selenium	100	96.8	96.8	80.0-120	
Silver	20.0	17.2	86.2	80.0-120	
Zinc	100	96.2	96.2	80.0-120	

L1409348-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409348-01 10/03/21 13:03 • (MS) R3711937-5 10/03/21 13:11 • (MSD) R3711937-6 10/03/21 13:14

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	228	304	423	76.8	195	1	75.0-125		J3 J5	32.6	20
Cadmium	100	0.197	87.5	98.8	87.3	98.6	1	75.0-125			12.1	20
Copper	100	5.73	95.7	108	90.0	103	1	75.0-125			12.5	20
Lead	100	7.54	97.9	109	90.3	101	1	75.0-125			10.7	20
Nickel	100	4.99	97.5	110	92.5	105	1	75.0-125			12.5	20
Selenium	100	U	89.6	101	89.6	101	1	75.0-125			11.9	20
Silver	20.0	U	16.2	18.3	81.1	91.3	1	75.0-125			11.8	20
Zinc	100	20.1	106	119	86.3	99.3	1	75.0-125			11.5	20

Method Blank (MB)

(MB) R3712322-1 10/04/21 17:14

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

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

(LCS) R3712322-2 10/04/21 17:17 • (LCSD) R3712322-3 10/04/21 17:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.04	1.02	104	102	80.0-120			2.35	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3711834-1 10/03/21 17:30

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) R3711834-2 10/03/21 17:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	95.7	95.7	80.0-120	

L1409348-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409348-01 10/03/21 17:37 • (MS) R3711834-5 10/03/21 17:46 • (MSD) R3711834-6 10/03/21 17:50

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 %
Arsenic	100	2.06	87.1	99.6	85.1	97.6	5	75.0-125			13.4	20

1
Cp

2
Tc

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Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3712715-2 10/04/21 04:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0337	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	88.3			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3712715-1 10/04/21 03:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.33	96.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			104	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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	

1
Cp

2
Tc

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Ss

4
Cn

5
Sr

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Qc

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Gl

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Al

9
Sc

Method Blank (MB)

(MB) R3714361-3 10/06/21 11:01

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)	97.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3714361-2 10/06/21 10:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.01	91.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			101	77.0-120	

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3713128-3 09/29/21 19:11

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	102			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	99.7			70.0-130

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

(LCS) R3713128-1 09/29/21 17:53 • (LCSD) R3713128-2 09/29/21 18:13

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	0.132	0.129	106	103	70.0-123			2.30	20
Ethylbenzene	0.125	0.117	0.114	93.6	91.2	74.0-126			2.60	20
Toluene	0.125	0.120	0.116	96.0	92.8	75.0-121			3.39	20
1,2,4-Trimethylbenzene	0.125	0.120	0.116	96.0	92.8	70.0-126			3.39	20
1,3,5-Trimethylbenzene	0.125	0.114	0.103	91.2	82.4	73.0-127			10.1	20
Xylenes, Total	0.375	0.345	0.348	92.0	92.8	72.0-127			0.866	20
(S) Toluene-d8				94.8	99.5	75.0-131				
(S) 4-Bromofluorobenzene				98.2	104	67.0-138				
(S) 1,2-Dichloroethane-d4				109	111	70.0-130				

L1409348-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409348-16 09/30/21 02:03 • (MS) R3713128-4 09/30/21 02:22 • (MSD) R3713128-5 09/30/21 02:41

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.124	U	0.0611	0.130	49.3	105	1	10.0-149	J3		72.1	37
Ethylbenzene	0.124	U	0.0503	0.112	40.6	90.3	1	10.0-160	J3		76.0	38
Toluene	0.124	U	0.0570	0.119	46.0	96.0	1	10.0-156	J3		70.5	38
1,2,4-Trimethylbenzene	0.124	U	0.0642	0.124	51.8	100	1	10.0-160	J3		63.5	36
1,3,5-Trimethylbenzene	0.124	U	0.0544	0.117	43.9	94.4	1	10.0-160	J3		73.0	38
Xylenes, Total	0.372	U	0.169	0.346	45.4	93.0	1	10.0-160	J3		68.7	38
(S) Toluene-d8					99.7	99.6		75.0-131				
(S) 4-Bromofluorobenzene					96.4	96.9		67.0-138				
(S) 1,2-Dichloroethane-d4					101	105		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3712877-1 10/06/21 01:45

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	67.9			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3712877-2 10/06/21 01:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.0	78.0	50.0-150	
(S) o-Terphenyl			74.9	18.0-148	

L1409348-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409348-04 10/06/21 07:06 • (MS) R3712877-3 10/06/21 07:19 • (MSD) R3712877-4 10/06/21 07:32

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	U	37.0	35.7	74.0	71.4	1	50.0-150			3.58	20
(S) o-Terphenyl					66.7	60.1		18.0-148				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3714465-1 10/08/21 13:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	0.988	J	0.274	4.00
(S) o-Terphenyl	80.3			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3714465-2 10/08/21 13:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.6	81.2	50.0-150	
(S) o-Terphenyl			108	18.0-148	

L1409348-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409348-09 10/09/21 00:11 • (MS) R3714465-3 10/09/21 00:24 • (MSD) R3714465-4 10/09/21 00:36

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	48.5	63.6	133	47.4	143	0.000	1	50.0-150		J3 J6	94.9	20
(S) o-Terphenyl					72.0	71.8		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3713802-2 10/07/21 07:16

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	90.4			14.0-149
(S) 2-Fluorobiphenyl	78.9			34.0-125
(S) p-Terphenyl-d14	113			23.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3713802-1 10/07/21 06:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0664	83.0	50.0-126	
Acenaphthene	0.0800	0.0703	87.9	50.0-120	
Acenaphthylene	0.0800	0.0693	86.6	50.0-120	
Benzo(a)anthracene	0.0800	0.0713	89.1	45.0-120	
Benzo(a)pyrene	0.0800	0.0543	67.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0835	104	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0735	91.9	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0778	97.3	49.0-125	
Chrysene	0.0800	0.0764	95.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0731	91.4	47.0-125	
Fluoranthene	0.0800	0.0721	90.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3713802-1 10/07/21 06:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0747	93.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0703	87.9	46.0-125	
Naphthalene	0.0800	0.0700	87.5	50.0-120	
Phenanthrene	0.0800	0.0750	93.8	47.0-120	
Pyrene	0.0800	0.0765	95.6	43.0-123	
1-Methylnaphthalene	0.0800	0.0706	88.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0688	86.0	50.0-120	
2-Chloronaphthalene	0.0800	0.0714	89.3	50.0-120	
(S) Nitrobenzene-d5			117	14.0-149	
(S) 2-Fluorobiphenyl			94.4	34.0-125	
(S) p-Terphenyl-d14			120	23.0-120	

L1409262-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409262-24 10/07/21 09:01 • (MS) R3713802-3 10/07/21 09:18 • (MSD) R3713802-4 10/07/21 09:35

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 %
Anthracene	0.0792	0.00305	0.0712	0.0644	86.0	77.5	1	10.0-145			10.0	30
Acenaphthene	0.0792	U	0.0702	0.0623	88.6	78.7	1	14.0-127			11.9	27
Acenaphthylene	0.0792	U	0.0734	0.0637	92.7	80.4	1	21.0-124			14.2	25
Benzo(a)anthracene	0.0792	U	0.0753	0.0673	95.1	85.0	1	10.0-139			11.2	30
Benzo(a)pyrene	0.0792	U	0.0686	0.0631	86.6	79.7	1	10.0-141			8.35	31
Benzo(b)fluoranthene	0.0792	0.00265	0.0715	0.0632	86.9	76.5	1	10.0-140			12.3	36
Benzo(g,h,i)perylene	0.0792	0.00537	0.0705	0.0661	82.2	76.7	1	10.0-140			6.44	33
Benzo(k)fluoranthene	0.0792	U	0.0676	0.0643	85.4	81.2	1	10.0-137			5.00	31
Chrysene	0.0792	U	0.0757	0.0685	95.6	86.5	1	10.0-145			9.99	30
Dibenz(a,h)anthracene	0.0792	U	0.0702	0.0650	88.6	82.1	1	10.0-132			7.69	31
Fluoranthene	0.0792	0.00403	0.0769	0.0681	92.0	80.9	1	10.0-153			12.1	33
Fluorene	0.0792	U	0.0747	0.0676	94.3	85.4	1	11.0-130			9.98	29
Indeno(1,2,3-cd)pyrene	0.0792	0.00217	0.0704	0.0662	86.1	80.8	1	10.0-137			6.15	32
Naphthalene	0.0792	0.00541	0.0747	0.0641	87.5	74.1	1	10.0-135			15.3	27
Phenanthrene	0.0792	0.0206	0.0769	0.0771	71.1	71.3	1	10.0-144			0.260	31
Pyrene	0.0792	0.00419	0.0748	0.0672	89.2	79.6	1	10.0-148			10.7	35
1-Methylnaphthalene	0.0792	0.00960	0.0779	0.0668	86.2	72.2	1	10.0-142			15.3	28
2-Methylnaphthalene	0.0792	0.0165	0.0808	0.0687	81.2	65.9	1	10.0-137			16.2	28
2-Chloronaphthalene	0.0792	U	0.0691	0.0609	87.2	76.9	1	29.0-120			12.6	24
(S) Nitrobenzene-d5					115	107		14.0-149				
(S) 2-Fluorobiphenyl					89.6	84.3		34.0-125				
(S) p-Terphenyl-d14					111	104		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3713876-2 10/07/21 17:24

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	98.8			14.0-149
(S) 2-Fluorobiphenyl	91.5			34.0-125
(S) p-Terphenyl-d14	115			23.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3713876-1 10/07/21 17:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0751	93.9	50.0-126	
Acenaphthene	0.0800	0.0758	94.8	50.0-120	
Acenaphthylene	0.0800	0.0853	107	50.0-120	
Benzo(a)anthracene	0.0800	0.0778	97.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0560	70.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0690	86.3	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0610	76.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0702	87.8	49.0-125	
Chrysene	0.0800	0.0740	92.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0649	81.1	47.0-125	
Fluoranthene	0.0800	0.0761	95.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3713876-1 10/07/21 17:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0766	95.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0672	84.0	46.0-125	
Naphthalene	0.0800	0.0733	91.6	50.0-120	
Phenanthrene	0.0800	0.0753	94.1	47.0-120	
Pyrene	0.0800	0.0756	94.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0749	93.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0707	88.4	50.0-120	
2-Chloronaphthalene	0.0800	0.0727	90.9	50.0-120	
(S) Nitrobenzene-d5			111	14.0-149	
(S) 2-Fluorobiphenyl			97.6	34.0-125	
(S) p-Terphenyl-d14			116	23.0-120	

L1409454-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1409454-03 10/07/21 20:01 • (MS) R3713876-3 10/07/21 20:21 • (MSD) R3713876-4 10/07/21 20:41

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	0.0776	U	0.0544	0.0603	70.1	77.7	1	10.0-145			10.3	30
Acenaphthene	0.0776	0.00322	0.0624	0.0695	76.3	85.4	1	14.0-127			10.8	27
Acenaphthylene	0.0776	U	0.0637	0.0683	82.1	88.0	1	21.0-124			6.97	25
Benzo(a)anthracene	0.0776	U	0.0553	0.0609	71.3	78.5	1	10.0-139			9.64	30
Benzo(a)pyrene	0.0776	U	0.0559	0.0604	72.0	77.8	1	10.0-141			7.74	31
Benzo(b)fluoranthene	0.0776	U	0.0565	0.0622	72.8	80.2	1	10.0-140			9.60	36
Benzo(g,h,i)perylene	0.0776	U	0.0538	0.0589	69.3	75.9	1	10.0-140			9.05	33
Benzo(k)fluoranthene	0.0776	U	0.0586	0.0638	75.5	82.2	1	10.0-137			8.50	31
Chrysene	0.0776	U	0.0591	0.0642	76.2	82.7	1	10.0-145			8.27	30
Dibenz(a,h)anthracene	0.0776	U	0.0524	0.0558	67.5	71.9	1	10.0-132			6.28	31
Fluoranthene	0.0776	U	0.0577	0.0641	74.4	82.6	1	10.0-153			10.5	33
Fluorene	0.0776	0.00355	0.0610	0.0710	74.0	86.9	1	11.0-130			15.2	29
Indeno(1,2,3-cd)pyrene	0.0776	U	0.0496	0.0530	63.9	68.3	1	10.0-137			6.63	32
Naphthalene	0.0776	0.00886	0.0755	0.0896	85.9	104	1	10.0-135			17.1	27
Phenanthrene	0.0776	0.00376	0.0662	0.0772	80.5	94.6	1	10.0-144			15.3	31
Pyrene	0.0776	0.00526	0.0689	0.0799	82.0	96.2	1	10.0-148			14.8	35
1-Methylnaphthalene	0.0776	0.0199	0.0907	0.117	91.2	125	1	10.0-142			25.3	28
2-Methylnaphthalene	0.0776	0.0275	0.0995	0.133	92.8	136	1	10.0-137		J3	28.8	28
2-Chloronaphthalene	0.0776	U	0.0566	0.0590	72.9	76.0	1	29.0-120			4.15	24
(S) Nitrobenzene-d5					138	130		14.0-149				
(S) 2-Fluorobiphenyl					86.9	89.2		34.0-125				
(S) p-Terphenyl-d14					110	115		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

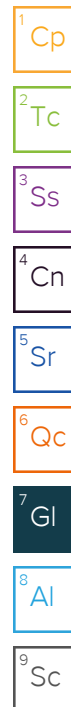
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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

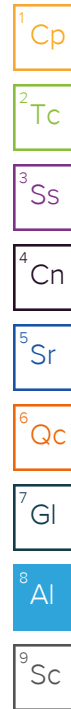
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122



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.



Report to: Adam Kibat Project Description: Taproot - Boomslang Release Phone: 507-475-2825 Collected by (print): Adam Kibat Collected by (signature): <i>[Signature]</i> Immediately Packed on Ice <input checked="" type="checkbox"/>		Billing Information: <i>Ake@environmentalworks.com</i> Email To: <i>AKibat@environmentalworks.com</i> City/State Collected: Briggsdale, CO Please Circle: PT MT CT ET		Analysis / Container / Preservative										Chain of Custody Page <u>1</u> of <u>2</u>  12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859  SDG # 1409348 L-076 Acctnum: Template: Prelogin: PM: PB: Shipped Via:					
		Client Project # 212500-C1 Lab Project # Site/Facility ID # P.O. # Quote # Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day Date Results Needed No. of Cntrs		Table 915										Remarks Sample # (lab only)					
Sample ID Comp/Grab Matrix* Time Depth Date Depth																			
SW6-4.5		G	SS	11:10	9/23	4.5	3	X											-01
SW7-6				11:20		6													-02
SW8-4				11:25		4													-03
SW9-5				11:35		5													-04
FS2-10				11:45		10													-05
SW10-4				11:55		4													-06
SW11-6				12:00		6													-07
SW12-3				12:10		3													-08
SW13-3.5				12:20		3.5													-09
SS1				12:35		0.5													-10
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks: Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # 5217 3309 0696		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N											
Relinquished by: (Signature) <i>[Signature]</i> Relinquished by: (Signature) Relinquished by: (Signature)		Date: 9/24 Date: Date:		Time: 14:40 Time: Time:		Received by: (Signature) <i>[Signature]</i> Received by: (Signature) Received for lab by: (Signature) <i>[Signature]</i>		Trip Blank Received: Yes / No HCL / MeOH TBR Temp: 22.7 °C Bottles Received: 27 + 22.7 48		If preservation required by Login: Date/Time Hold: Condition: NCF / <input checked="" type="checkbox"/> OK									

