ANALYTICAL REPORT

July 19, 2024

Revised Report

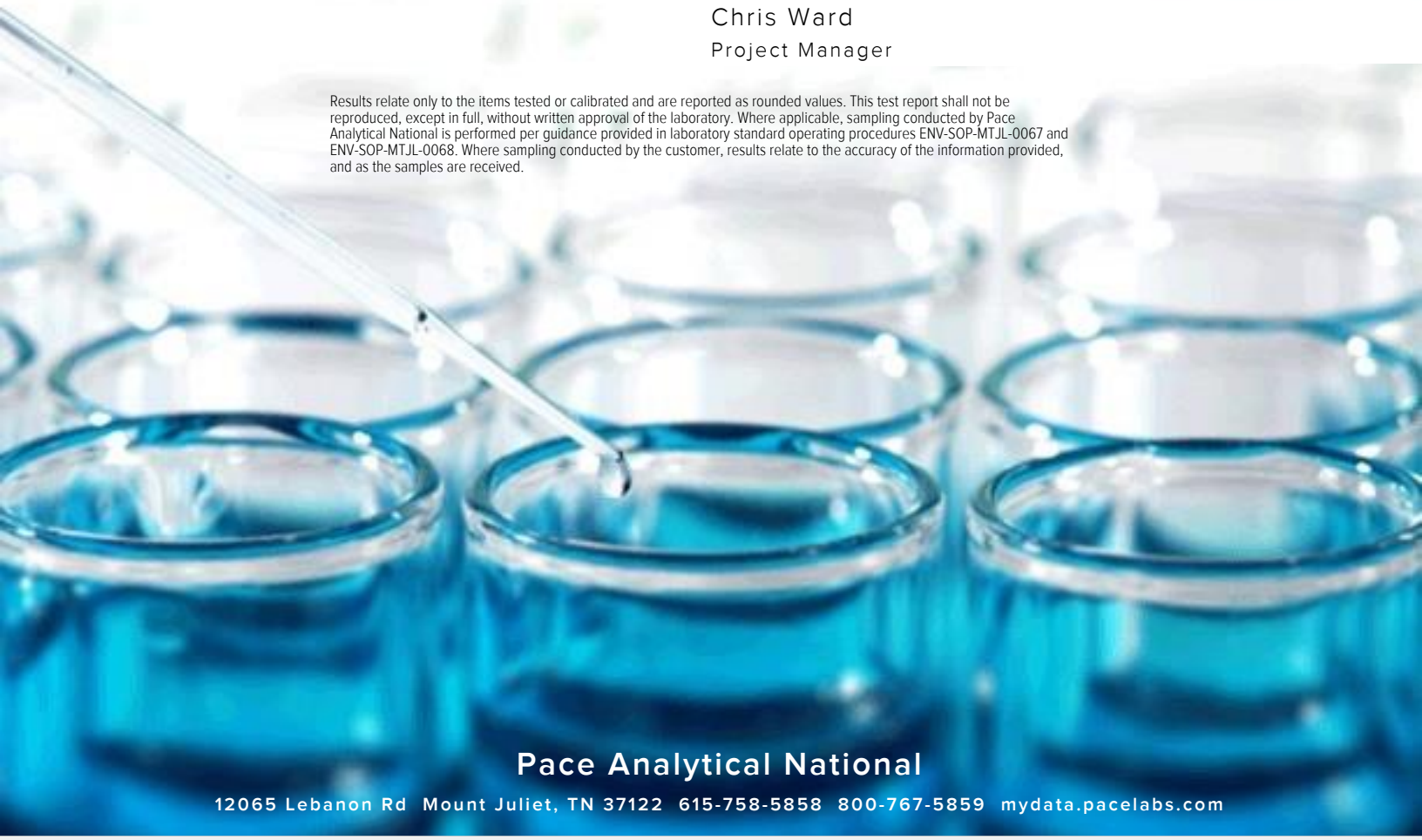
Pace Analytical Services, LLC
2025.06.24 21:32:55 -05'00'
Document is certified

Civitas - CO

Sample Delivery Group:	L1748337
Samples Received:	06/19/2024
Project Number:	
Description:	State Bierstadt 4-65 35-34 2AH
Report To:	Sam Vogt / Jacob Evans 6855 W. 118th Ave Broomfield, CO 80020

Entire Report Reviewed By:

Chris Ward
Project Manager



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

TABLE OF CONTENTS

CS-N01 L1748337-01 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 11:04	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:14	06/26/24 13:14	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308552	1	06/24/24 12:04	06/25/24 05:01	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:45	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 13:44	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1.01	06/20/24 21:39	06/22/24 03:42	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309879	1	06/20/24 21:39	06/21/24 19:26	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 10:09	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/23/24 03:39	JCH	Mt. Juliet, TN

CS-N02 L1748337-02 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:27	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2311748	1	06/27/24 11:42	06/27/24 11:42	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308552	1	06/24/24 12:04	06/25/24 05:17	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2313365	1	06/27/24 12:06	06/27/24 15:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2313370	1	06/27/24 12:15	06/27/24 14:35	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311753	1	06/26/24 10:49	06/26/24 17:19	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 13:47	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1	06/20/24 21:39	06/22/24 04:05	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309879	1	06/20/24 21:39	06/21/24 19:45	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 10:46	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/23/24 03:57	JCH	Mt. Juliet, TN

CS-N03 L1748337-03 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:46	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2311748	1	06/27/24 11:44	06/27/24 11:44	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308552	1	06/24/24 12:04	06/25/24 05:25	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2313365	1	06/27/24 12:06	06/27/24 15:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2313370	1	06/27/24 12:15	06/27/24 14:35	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311753	1	06/26/24 10:49	06/26/24 17:20	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 13:50	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1	06/20/24 21:39	06/22/24 04:29	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309879	1.01	06/20/24 21:39	06/21/24 20:04	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 09:44	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/23/24 04:14	JCH	Mt. Juliet, TN

CS-S01 L1748337-04 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 11:12	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:16	06/26/24 13:16	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308552	1	06/24/24 12:04	06/25/24 05:56	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:47	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 13:54	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1.01	06/20/24 21:39	06/22/24 04:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309879	1	06/20/24 21:39	06/21/24 20:23	JAH	Mt. Juliet, TN

CS-S01 L1748337-04 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 11:12	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 09:57	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/23/24 04:31	JCH	Mt. Juliet, TN

CS-S02 L1748337-05 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:34	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:18	06/26/24 13:18	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 09:06	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:49	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 13:57	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1.01	06/20/24 21:39	06/22/24 05:24	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1.01	06/20/24 21:39	06/21/24 22:50	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 10:09	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 20:34	DSH	Mt. Juliet, TN

CS-S03 L1748337-06 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:41	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:20	06/26/24 13:20	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 09:46	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:51	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 14:00	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1.01	06/20/24 21:39	06/22/24 06:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1	06/20/24 21:39	06/21/24 23:09	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 10:21	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 20:51	DSH	Mt. Juliet, TN

CS-FS01 L1748337-07 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:10	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:22	06/26/24 13:22	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 09:54	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:53	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 14:04	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1	06/20/24 21:39	06/22/24 06:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1	06/20/24 21:39	06/21/24 23:28	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2311247	1	06/24/24 21:30	06/25/24 10:34	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 21:09	DSH	Mt. Juliet, TN

CS-FS02 L1748337-08 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:15	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2311748	1	06/27/24 11:45	06/27/24 11:45	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 11:59	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2313365	1	06/27/24 12:06	06/27/24 15:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2313370	1	06/27/24 12:15	06/27/24 14:35	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311753	1	06/26/24 10:49	06/26/24 17:22	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 14:18	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1	06/20/24 21:39	06/22/24 07:23	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1.01	06/20/24 21:39	06/21/24 23:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2310460	1	06/23/24 09:17	06/23/24 23:41	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 21:27	DSH	Mt. Juliet, TN

CS-W01 L1748337-09 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:51	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2311748	1	06/27/24 11:47	06/27/24 11:47	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 12:07	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2313365	1	06/27/24 12:06	06/27/24 15:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2313370	1	06/27/24 12:15	06/27/24 14:35	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311753	1	06/26/24 10:49	06/26/24 17:24	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 14:21	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1.01	06/20/24 21:39	06/22/24 07:46	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1	06/20/24 21:39	06/22/24 00:07	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2310460	1	06/23/24 09:17	06/23/24 23:15	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 21:44	DSH	Mt. Juliet, TN

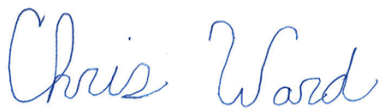
CS-E01 L1748337-10 Solid

Collected by	Collected date/time	Received date/time
	06/15/24 10:58	06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2310850	1	06/26/24 13:24	06/26/24 13:24	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2308555	1	06/24/24 01:17	06/24/24 12:15	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2312548	1	06/26/24 12:16	06/26/24 12:30	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2312547	1	06/26/24 12:11	06/26/24 14:00	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2311680	1	06/25/24 14:35	06/25/24 23:55	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 14:25	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2310011	1	06/20/24 21:39	06/22/24 08:09	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2309938	1.01	06/20/24 21:39	06/22/24 00:26	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2310460	1	06/23/24 09:17	06/23/24 23:28	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2310075	1	06/22/24 07:58	06/22/24 22:02	DSH	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

Report Revision History

Level II Report - Version 1: 06/27/24 16:44

Project Narrative

Report reissued for updated project name

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.29		1	06/26/2024 13:14	WG2310850

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	06/25/2024 05:01	WG2308552

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.99	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-01 WG2312548: 7.99 at 22.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1130		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-01 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.736		0.0167	0.200	1	06/25/2024 23:45	WG2311680

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	8.04		0.100	1.00	5	06/23/2024 13:44	WG2309482
Barium	406		0.152	2.50	5	06/23/2024 13:44	WG2309482
Cadmium	0.105	J	0.0855	1.00	5	06/23/2024 13:44	WG2309482
Copper	10.6		0.132	5.00	5	06/23/2024 13:44	WG2309482
Lead	10.8		0.0990	2.00	5	06/23/2024 13:44	WG2309482
Nickel	8.69		0.197	2.50	5	06/23/2024 13:44	WG2309482
Selenium	0.499	J	0.180	2.50	5	06/23/2024 13:44	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 13:44	WG2309482
Zinc	41.9		0.740	25.0	5	06/23/2024 13:44	WG2309482

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	0.0227	J	0.0219	0.101	1.01	06/22/2024 03:42	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-120*		*06/22/2024 03:42*	WG2310011

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	06/21/2024 19:26	WG2309879
Toluene	U		0.00130	0.00500	1	06/21/2024 19:26	WG2309879
Ethylbenzene	U		0.000737	0.00250	1	06/21/2024 19:26	WG2309879
Xylenes, Total	U		0.000880	0.00650	1	06/21/2024 19:26	WG2309879
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/21/2024 19:26	WG2309879
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/21/2024 19:26	WG2309879
(S) Toluene-d8	*96.2*			*75.0-131*		*06/21/2024 19:26*	WG2309879
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*06/21/2024 19:26*	WG2309879
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/21/2024 19:26*	WG2309879

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	06/25/2024 10:09	WG2311247
C28-C36 Motor Oil Range	U		0.274	4.00	1	06/25/2024 10:09	WG2311247
(S) o-Terphenyl	*63.7*			*18.0-148*		*06/25/2024 10:09*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/23/2024 03:39	WG2310075
Anthracene	U		0.00230	0.00600	1	06/23/2024 03:39	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/23/2024 03:39	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/23/2024 03:39	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/23/2024 03:39	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/23/2024 03:39	WG2310075
Chrysene	U		0.00232	0.00600	1	06/23/2024 03:39	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/23/2024 03:39	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/23/2024 03:39	WG2310075
Fluorene	U		0.00205	0.00600	1	06/23/2024 03:39	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/23/2024 03:39	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/23/2024 03:39	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/23/2024 03:39	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/23/2024 03:39	WG2310075
Pyrene	U		0.00200	0.00600	1	06/23/2024 03:39	WG2310075
(S) p-Terphenyl-d14	*68.6*			*23.0-120*		*06/23/2024 03:39*	WG2310075
(S) Nitrobenzene-d5	*89.6*			*14.0-149*		*06/23/2024 03:39*	WG2310075
(S) 2-Fluorobiphenyl	*79.6*			*34.0-125*		*06/23/2024 03:39*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.08		1	06/27/2024 11:42	WG2311748

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	06/25/2024 05:17	WG2308552

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.21	T8	1	06/27/2024 15:15	WG2313365

Sample Narrative:

L1748337-02 WG2313365: 8.21 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1230		10.0	1	06/27/2024 14:35	WG2313370

Sample Narrative:

L1748337-02 WG2313370: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.633		0.0167	0.200	1	06/26/2024 17:19	WG2311753

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.18		0.100	1.00	5	06/23/2024 13:47	WG2309482
Barium	166		0.152	2.50	5	06/23/2024 13:47	WG2309482
Cadmium	0.0914	J	0.0855	1.00	5	06/23/2024 13:47	WG2309482
Copper	8.24		0.132	5.00	5	06/23/2024 13:47	WG2309482
Lead	9.25		0.0990	2.00	5	06/23/2024 13:47	WG2309482
Nickel	6.44		0.197	2.50	5	06/23/2024 13:47	WG2309482
Selenium	0.292	J	0.180	2.50	5	06/23/2024 13:47	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 13:47	WG2309482
Zinc	33.2		0.740	25.0	5	06/23/2024 13:47	WG2309482

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	0.0240	J	0.0217	0.100	1	06/22/2024 04:05	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*87.9*			*77.0-120*		*06/22/2024 04:05*	WG2310011

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	06/21/2024 19:45	WG2309879
Toluene	U		0.00130	0.00500	1	06/21/2024 19:45	WG2309879
Ethylbenzene	U		0.000737	0.00250	1	06/21/2024 19:45	WG2309879
Xylenes, Total	U		0.000880	0.00650	1	06/21/2024 19:45	WG2309879
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/21/2024 19:45	WG2309879
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/21/2024 19:45	WG2309879
(S) Toluene-d8	*105*			*75.0-131*		*06/21/2024 19:45*	WG2309879
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*06/21/2024 19:45*	WG2309879
(S) 1,2-Dichloroethane-d4	*94.6*			*70.0-130*		*06/21/2024 19:45*	WG2309879

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	06/25/2024 10:46	WG2311247
C28-C36 Motor Oil Range	U		0.274	4.00	1	06/25/2024 10:46	WG2311247
(S) o-Terphenyl	*54.5*			*18.0-148*		*06/25/2024 10:46*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/23/2024 03:57	WG2310075
Anthracene	U		0.00230	0.00600	1	06/23/2024 03:57	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/23/2024 03:57	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/23/2024 03:57	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/23/2024 03:57	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/23/2024 03:57	WG2310075
Chrysene	U		0.00232	0.00600	1	06/23/2024 03:57	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/23/2024 03:57	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/23/2024 03:57	WG2310075
Fluorene	U		0.00205	0.00600	1	06/23/2024 03:57	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/23/2024 03:57	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/23/2024 03:57	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/23/2024 03:57	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/23/2024 03:57	WG2310075
Pyrene	U		0.00200	0.00600	1	06/23/2024 03:57	WG2310075
(S) p-Terphenyl-d14	*75.0*			*23.0-120*		*06/23/2024 03:57*	WG2310075
(S) Nitrobenzene-d5	*144*			*14.0-149*		*06/23/2024 03:57*	WG2310075
(S) 2-Fluorobiphenyl	*81.0*			*34.0-125*		*06/23/2024 03:57*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.63		1	06/27/2024 11:44	WG2311748

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	06/25/2024 05:25	WG2308552

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.96	T8	1	06/27/2024 15:15	WG2313365

Sample Narrative:

L1748337-03 WG2313365: 7.96 at 22.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	747		10.0	1	06/27/2024 14:35	WG2313370

Sample Narrative:

L1748337-03 WG2313370: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.526		0.0167	0.200	1	06/26/2024 17:20	WG2311753

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.76		0.100	1.00	5	06/23/2024 13:50	WG2309482
Barium	53.8		0.152	2.50	5	06/23/2024 13:50	WG2309482
Cadmium	U		0.0855	1.00	5	06/23/2024 13:50	WG2309482
Copper	5.50		0.132	5.00	5	06/23/2024 13:50	WG2309482
Lead	5.61		0.0990	2.00	5	06/23/2024 13:50	WG2309482
Nickel	3.87		0.197	2.50	5	06/23/2024 13:50	WG2309482
Selenium	U		0.180	2.50	5	06/23/2024 13:50	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 13:50	WG2309482
Zinc	23.1	J	0.740	25.0	5	06/23/2024 13:50	WG2309482

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	0.0238	J	0.0217	0.100	1	06/22/2024 04:29	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.2*			*77.0-120*		*06/22/2024 04:29*	WG2310011

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		0.000472	0.00101	1.01	06/21/2024 20:04	WG2309879
Toluene	U		0.00131	0.00505	1.01	06/21/2024 20:04	WG2309879
Ethylbenzene	U		0.000744	0.00253	1.01	06/21/2024 20:04	WG2309879
Xylenes, Total	U		0.000889	0.00656	1.01	06/21/2024 20:04	WG2309879
1,2,4-Trimethylbenzene	U		0.00160	0.00505	1.01	06/21/2024 20:04	WG2309879
1,3,5-Trimethylbenzene	U		0.00202	0.00505	1.01	06/21/2024 20:04	WG2309879
(S) Toluene-d8	*95.4*			*75.0-131*		*06/21/2024 20:04*	WG2309879
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*06/21/2024 20:04*	WG2309879
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/21/2024 20:04*	WG2309879

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	06/25/2024 09:44	WG2311247
C28-C36 Motor Oil Range	0.653	J	0.274	4.00	1	06/25/2024 09:44	WG2311247
(S) o-Terphenyl	*65.4*			*18.0-148*		*06/25/2024 09:44*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/23/2024 04:14	WG2310075
Anthracene	U		0.00230	0.00600	1	06/23/2024 04:14	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/23/2024 04:14	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/23/2024 04:14	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/23/2024 04:14	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/23/2024 04:14	WG2310075
Chrysene	U		0.00232	0.00600	1	06/23/2024 04:14	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/23/2024 04:14	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/23/2024 04:14	WG2310075
Fluorene	U		0.00205	0.00600	1	06/23/2024 04:14	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/23/2024 04:14	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/23/2024 04:14	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/23/2024 04:14	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/23/2024 04:14	WG2310075
Pyrene	U		0.00200	0.00600	1	06/23/2024 04:14	WG2310075
(S) p-Terphenyl-d14	*97.2*			*23.0-120*		*06/23/2024 04:14*	WG2310075
(S) Nitrobenzene-d5	*100*			*14.0-149*		*06/23/2024 04:14*	WG2310075
(S) 2-Fluorobiphenyl	*89.7*			*34.0-125*		*06/23/2024 04:14*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.04		1	06/26/2024 13:16	WG2310850

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	06/25/2024 05:56	WG2308552

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.23	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-04 WG2312548: 8.23 at 22.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	650		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-04 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.673		0.0167	0.200	1	06/25/2024 23:47	WG2311680

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.59		0.100	1.00	5	06/23/2024 13:54	WG2309482
Barium	199		0.152	2.50	5	06/23/2024 13:54	WG2309482
Cadmium	0.104	J	0.0855	1.00	5	06/23/2024 13:54	WG2309482
Copper	9.64		0.132	5.00	5	06/23/2024 13:54	WG2309482
Lead	9.10		0.0990	2.00	5	06/23/2024 13:54	WG2309482
Nickel	8.28		0.197	2.50	5	06/23/2024 13:54	WG2309482
Selenium	0.324	J	0.180	2.50	5	06/23/2024 13:54	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 13:54	WG2309482
Zinc	37.4		0.740	25.0	5	06/23/2024 13:54	WG2309482

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	0.0225	J	0.0219	0.101	1.01	06/22/2024 04:57	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.2*			*77.0-120*		*06/22/2024 04:57*	WG2310011

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	06/21/2024 20:23	WG2309879
Toluene	U		0.00130	0.00500	1	06/21/2024 20:23	WG2309879
Ethylbenzene	U		0.000737	0.00250	1	06/21/2024 20:23	WG2309879
Xylenes, Total	U		0.000880	0.00650	1	06/21/2024 20:23	WG2309879
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/21/2024 20:23	WG2309879
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/21/2024 20:23	WG2309879
(S) Toluene-d8	*95.7*			*75.0-131*		*06/21/2024 20:23*	WG2309879
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*		*06/21/2024 20:23*	WG2309879
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*06/21/2024 20:23*	WG2309879

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	06/25/2024 09:57	WG2311247
C28-C36 Motor Oil Range	0.635	J	0.274	4.00	1	06/25/2024 09:57	WG2311247
(S) o-Terphenyl	*63.0*			*18.0-148*		*06/25/2024 09:57*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/23/2024 04:31	WG2310075
Anthracene	U		0.00230	0.00600	1	06/23/2024 04:31	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/23/2024 04:31	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/23/2024 04:31	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/23/2024 04:31	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/23/2024 04:31	WG2310075
Chrysene	U		0.00232	0.00600	1	06/23/2024 04:31	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/23/2024 04:31	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/23/2024 04:31	WG2310075
Fluorene	U		0.00205	0.00600	1	06/23/2024 04:31	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/23/2024 04:31	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/23/2024 04:31	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/23/2024 04:31	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/23/2024 04:31	WG2310075
Pyrene	U		0.00200	0.00600	1	06/23/2024 04:31	WG2310075
(S) p-Terphenyl-d14	*75.1*			*23.0-120*		*06/23/2024 04:31*	WG2310075
(S) Nitrobenzene-d5	*94.7*			*14.0-149*		*06/23/2024 04:31*	WG2310075
(S) 2-Fluorobiphenyl	*74.2*			*34.0-125*		*06/23/2024 04:31*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.74		1	06/26/2024 13:18	WG2310850

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U	J6	0.255	1.00	1	06/24/2024 09:06	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.20	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-05 WG2312548: 8.2 at 22.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	659		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-05 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.647		0.0167	0.200	1	06/25/2024 23:49	WG2311680

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.26		0.100	1.00	5	06/23/2024 13:57	WG2309482
Barium	221		0.152	2.50	5	06/23/2024 13:57	WG2309482
Cadmium	0.113	J	0.0855	1.00	5	06/23/2024 13:57	WG2309482
Copper	8.24		0.132	5.00	5	06/23/2024 13:57	WG2309482
Lead	7.97		0.0990	2.00	5	06/23/2024 13:57	WG2309482
Nickel	6.83		0.197	2.50	5	06/23/2024 13:57	WG2309482
Selenium	0.260	J	0.180	2.50	5	06/23/2024 13:57	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 13:57	WG2309482
Zinc	33.0		0.740	25.0	5	06/23/2024 13:57	WG2309482

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		0.0219	0.101	1.01	06/22/2024 05:24	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.3*			*77.0-120*		*06/22/2024 05:24*	WG2310011

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		0.000472	0.00101	1.01	06/21/2024 22:50	WG2309938
Toluene	U		0.00131	0.00505	1.01	06/21/2024 22:50	WG2309938
Ethylbenzene	U		0.000744	0.00253	1.01	06/21/2024 22:50	WG2309938
Xylenes, Total	U		0.000889	0.00656	1.01	06/21/2024 22:50	WG2309938
1,2,4-Trimethylbenzene	U		0.00160	0.00505	1.01	06/21/2024 22:50	WG2309938
1,3,5-Trimethylbenzene	U		0.00202	0.00505	1.01	06/21/2024 22:50	WG2309938
(S) Toluene-d8	*106*			*75.0-131*		*06/21/2024 22:50*	WG2309938
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*06/21/2024 22:50*	WG2309938
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*06/21/2024 22:50*	WG2309938

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	06/25/2024 10:09	WG2311247
C28-C36 Motor Oil Range	1.30	J	0.274	4.00	1	06/25/2024 10:09	WG2311247
(S) o-Terphenyl	*64.4*			*18.0-148*		*06/25/2024 10:09*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 20:34	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 20:34	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 20:34	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 20:34	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 20:34	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 20:34	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 20:34	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 20:34	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/22/2024 20:34	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 20:34	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 20:34	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 20:34	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 20:34	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 20:34	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 20:34	WG2310075
(S) p-Terphenyl-d14	*90.6*			*23.0-120*		*06/22/2024 20:34*	WG2310075
(S) Nitrobenzene-d5	*77.4*			*14.0-149*		*06/22/2024 20:34*	WG2310075
(S) 2-Fluorobiphenyl	*85.6*			*34.0-125*		*06/22/2024 20:34*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.54		1	06/26/2024 13:20	WG2310850

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	06/24/2024 09:46	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.38	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-06 WG2312548: 8.38 at 22.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	247		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-06 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.482		0.0167	0.200	1	06/25/2024 23:51	WG2311680

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.41		0.100	1.00	5	06/23/2024 14:00	WG2309482
Barium	88.8		0.152	2.50	5	06/23/2024 14:00	WG2309482
Cadmium	0.108	J	0.0855	1.00	5	06/23/2024 14:00	WG2309482
Copper	9.63		0.132	5.00	5	06/23/2024 14:00	WG2309482
Lead	8.70		0.0990	2.00	5	06/23/2024 14:00	WG2309482
Nickel	7.80		0.197	2.50	5	06/23/2024 14:00	WG2309482
Selenium	0.302	J	0.180	2.50	5	06/23/2024 14:00	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 14:00	WG2309482
Zinc	39.1		0.740	25.0	5	06/23/2024 14:00	WG2309482

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		0.0219	0.101	1.01	06/22/2024 06:35	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.2*			*77.0-120*		*06/22/2024 06:35*	WG2310011

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	06/21/2024 23:09	WG2309938
Toluene	U		0.00130	0.00500	1	06/21/2024 23:09	WG2309938
Ethylbenzene	U		0.000737	0.00250	1	06/21/2024 23:09	WG2309938
Xylenes, Total	U		0.000880	0.00650	1	06/21/2024 23:09	WG2309938
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/21/2024 23:09	WG2309938
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/21/2024 23:09	WG2309938
(S) Toluene-d8	*105*			*75.0-131*		*06/21/2024 23:09*	WG2309938
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*06/21/2024 23:09*	WG2309938
(S) 1,2-Dichloroethane-d4	*82.0*			*70.0-130*		*06/21/2024 23:09*	WG2309938

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	06/25/2024 10:21	WG2311247
C28-C36 Motor Oil Range	0.781	J	0.274	4.00	1	06/25/2024 10:21	WG2311247
(S) o-Terphenyl	*64.1*			*18.0-148*		*06/25/2024 10:21*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 20:51	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 20:51	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 20:51	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 20:51	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 20:51	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 20:51	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 20:51	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 20:51	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/22/2024 20:51	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 20:51	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 20:51	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 20:51	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 20:51	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 20:51	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 20:51	WG2310075
(S) p-Terphenyl-d14	*96.2*			*23.0-120*		*06/22/2024 20:51*	WG2310075
(S) Nitrobenzene-d5	*76.3*			*14.0-149*		*06/22/2024 20:51*	WG2310075
(S) 2-Fluorobiphenyl	*82.9*			*34.0-125*		*06/22/2024 20:51*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.14		1	06/26/2024 13:22	WG2310850

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U	J6	0.255	1.00	1	06/24/2024 09:54	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.11	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-07 WG2312548: 8.11 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	787		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-07 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.03		0.0167	0.200	1	06/25/2024 23:53	WG2311680

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.84		0.100	1.00	5	06/23/2024 14:04	WG2309482
Barium	757		0.152	2.50	5	06/23/2024 14:04	WG2309482
Cadmium	0.110	J	0.0855	1.00	5	06/23/2024 14:04	WG2309482
Copper	7.20		0.132	5.00	5	06/23/2024 14:04	WG2309482
Lead	11.7		0.0990	2.00	5	06/23/2024 14:04	WG2309482
Nickel	4.29		0.197	2.50	5	06/23/2024 14:04	WG2309482
Selenium	0.243	J	0.180	2.50	5	06/23/2024 14:04	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 14:04	WG2309482
Zinc	37.7		0.740	25.0	5	06/23/2024 14:04	WG2309482

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	06/22/2024 06:59	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-120*		*06/22/2024 06:59*	WG2310011

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	06/21/2024 23:28	WG2309938
Toluene	U		0.00130	0.00500	1	06/21/2024 23:28	WG2309938
Ethylbenzene	U		0.000737	0.00250	1	06/21/2024 23:28	WG2309938
Xylenes, Total	U		0.000880	0.00650	1	06/21/2024 23:28	WG2309938
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/21/2024 23:28	WG2309938
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/21/2024 23:28	WG2309938
(S) Toluene-d8	*104*			*75.0-131*		*06/21/2024 23:28*	WG2309938
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*06/21/2024 23:28*	WG2309938
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*		*06/21/2024 23:28*	WG2309938

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	06/25/2024 10:34	WG2311247
C28-C36 Motor Oil Range	0.593	J	0.274	4.00	1	06/25/2024 10:34	WG2311247
(S) o-Terphenyl	*59.5*			*18.0-148*		*06/25/2024 10:34*	WG2311247

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 21:09	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 21:09	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 21:09	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 21:09	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 21:09	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 21:09	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 21:09	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 21:09	WG2310075
Fluoranthene	0.00255	J	0.00227	0.00600	1	06/22/2024 21:09	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 21:09	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 21:09	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 21:09	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 21:09	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 21:09	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 21:09	WG2310075
(S) p-Terphenyl-d14	*92.1*			*23.0-120*		*06/22/2024 21:09*	WG2310075
(S) Nitrobenzene-d5	*71.2*			*14.0-149*		*06/22/2024 21:09*	WG2310075
(S) 2-Fluorobiphenyl	*73.2*			*34.0-125*		*06/22/2024 21:09*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.98		1	06/27/2024 11:45	WG2311748

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	06/24/2024 11:59	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.04	T8	1	06/27/2024 15:15	WG2313365

Sample Narrative:

L1748337-08 WG2313365: 8.04 at 22.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	922		10.0	1	06/27/2024 14:35	WG2313370

Sample Narrative:

L1748337-08 WG2313370: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.990		0.0167	0.200	1	06/26/2024 17:22	WG2311753

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.77		0.100	1.00	5	06/23/2024 14:18	WG2309482
Barium	575		0.152	2.50	5	06/23/2024 14:18	WG2309482
Cadmium	0.116	J	0.0855	1.00	5	06/23/2024 14:18	WG2309482
Copper	6.08		0.132	5.00	5	06/23/2024 14:18	WG2309482
Lead	11.3		0.0990	2.00	5	06/23/2024 14:18	WG2309482
Nickel	4.20		0.197	2.50	5	06/23/2024 14:18	WG2309482
Selenium	0.213	J	0.180	2.50	5	06/23/2024 14:18	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 14:18	WG2309482
Zinc	32.8		0.740	25.0	5	06/23/2024 14:18	WG2309482

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	06/22/2024 07:23	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.0*			*77.0-120*		*06/22/2024 07:23*	WG2310011

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		0.000472	0.00101	1.01	06/21/2024 23:47	WG2309938
Toluene	U		0.00131	0.00505	1.01	06/21/2024 23:47	WG2309938
Ethylbenzene	U		0.000744	0.00253	1.01	06/21/2024 23:47	WG2309938
Xylenes, Total	U		0.000889	0.00656	1.01	06/21/2024 23:47	WG2309938
1,2,4-Trimethylbenzene	U		0.00160	0.00505	1.01	06/21/2024 23:47	WG2309938
1,3,5-Trimethylbenzene	U		0.00202	0.00505	1.01	06/21/2024 23:47	WG2309938
(S) Toluene-d8	*104*			*75.0-131*		*06/21/2024 23:47*	WG2309938
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*06/21/2024 23:47*	WG2309938
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*06/21/2024 23:47*	WG2309938

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	06/23/2024 23:41	WG2310460
C28-C36 Motor Oil Range	U		0.274	4.00	1	06/23/2024 23:41	WG2310460
(S) o-Terphenyl	*75.5*			*18.0-148*		*06/23/2024 23:41*	WG2310460

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 21:27	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 21:27	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 21:27	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 21:27	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 21:27	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 21:27	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 21:27	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 21:27	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/22/2024 21:27	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 21:27	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 21:27	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 21:27	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 21:27	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 21:27	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 21:27	WG2310075
(S) p-Terphenyl-d14	*83.1*			*23.0-120*		*06/22/2024 21:27*	WG2310075
(S) Nitrobenzene-d5	*76.5*			*14.0-149*		*06/22/2024 21:27*	WG2310075
(S) 2-Fluorobiphenyl	*80.9*			*34.0-125*		*06/22/2024 21:27*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.87		1	06/27/2024 11:47	WG2311748

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	06/24/2024 12:07	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.30	T8	1	06/27/2024 15:15	WG2313365

Sample Narrative:

L1748337-09 WG2313365: 8.3 at 22.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	358		10.0	1	06/27/2024 14:35	WG2313370

Sample Narrative:

L1748337-09 WG2313370: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.668		0.0167	0.200	1	06/26/2024 17:24	WG2311753

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.47		0.100	1.00	5	06/23/2024 14:21	WG2309482
Barium	363		0.152	2.50	5	06/23/2024 14:21	WG2309482
Cadmium	0.116	J	0.0855	1.00	5	06/23/2024 14:21	WG2309482
Copper	8.05		0.132	5.00	5	06/23/2024 14:21	WG2309482
Lead	8.07		0.0990	2.00	5	06/23/2024 14:21	WG2309482
Nickel	7.09		0.197	2.50	5	06/23/2024 14:21	WG2309482
Selenium	0.281	J	0.180	2.50	5	06/23/2024 14:21	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 14:21	WG2309482
Zinc	31.7		0.740	25.0	5	06/23/2024 14:21	WG2309482

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		0.0219	0.101	1.01	06/22/2024 07:46	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-120*		*06/22/2024 07:46*	WG2310011

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	06/22/2024 00:07	WG2309938
Toluene	U		0.00130	0.00500	1	06/22/2024 00:07	WG2309938
Ethylbenzene	U		0.000737	0.00250	1	06/22/2024 00:07	WG2309938
Xylenes, Total	U		0.000880	0.00650	1	06/22/2024 00:07	WG2309938
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	06/22/2024 00:07	WG2309938
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	06/22/2024 00:07	WG2309938
(S) Toluene-d8	*105*			*75.0-131*		*06/22/2024 00:07*	WG2309938
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*06/22/2024 00:07*	WG2309938
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*06/22/2024 00:07*	WG2309938

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	06/23/2024 23:15	WG2310460
C28-C36 Motor Oil Range	U		0.274	4.00	1	06/23/2024 23:15	WG2310460
(S) o-Terphenyl	*77.6*			*18.0-148*		*06/23/2024 23:15*	WG2310460

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 21:44	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 21:44	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 21:44	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 21:44	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 21:44	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 21:44	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 21:44	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 21:44	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/22/2024 21:44	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 21:44	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 21:44	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 21:44	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 21:44	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 21:44	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 21:44	WG2310075
(S) p-Terphenyl-d14	*103*			*23.0-120*		*06/22/2024 21:44*	WG2310075
(S) Nitrobenzene-d5	*76.7*			*14.0-149*		*06/22/2024 21:44*	WG2310075
(S) 2-Fluorobiphenyl	*80.1*			*34.0-125*		*06/22/2024 21:44*	WG2310075

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.50		1	06/26/2024 13:24	WG2310850

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	06/24/2024 12:15	WG2308555

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.36	T8	1	06/26/2024 12:30	WG2312548

Sample Narrative:

L1748337-10 WG2312548: 8.36 at 22.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	307		10.0	1	06/26/2024 14:00	WG2312547

Sample Narrative:

L1748337-10 WG2312547: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.711		0.0167	0.200	1	06/25/2024 23:55	WG2311680

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	06/23/2024 14:25	WG2309482
Barium	215		0.152	2.50	5	06/23/2024 14:25	WG2309482
Cadmium	0.140	J	0.0855	1.00	5	06/23/2024 14:25	WG2309482
Copper	9.40		0.132	5.00	5	06/23/2024 14:25	WG2309482
Lead	12.8		0.0990	2.00	5	06/23/2024 14:25	WG2309482
Nickel	5.49		0.197	2.50	5	06/23/2024 14:25	WG2309482
Selenium	0.308	J	0.180	2.50	5	06/23/2024 14:25	WG2309482
Silver	U		0.0865	0.500	5	06/23/2024 14:25	WG2309482
Zinc	45.4		0.740	25.0	5	06/23/2024 14:25	WG2309482

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	06/22/2024 08:09	WG2310011
(S) a,a,a-Trifluorotoluene(FID)	*88.2*			*77.0-120*		*06/22/2024 08:09*	WG2310011

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		0.000472	0.00101	1.01	06/22/2024 00:26	WG2309938
Toluene	U		0.00131	0.00505	1.01	06/22/2024 00:26	WG2309938
Ethylbenzene	U		0.000744	0.00253	1.01	06/22/2024 00:26	WG2309938
Xylenes, Total	U		0.000889	0.00656	1.01	06/22/2024 00:26	WG2309938
1,2,4-Trimethylbenzene	U		0.00160	0.00505	1.01	06/22/2024 00:26	WG2309938
1,3,5-Trimethylbenzene	U		0.00202	0.00505	1.01	06/22/2024 00:26	WG2309938
(S) Toluene-d8	*105*			*75.0-131*		*06/22/2024 00:26*	WG2309938
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*06/22/2024 00:26*	WG2309938
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*		*06/22/2024 00:26*	WG2309938

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	06/23/2024 23:28	WG2310460
C28-C36 Motor Oil Range	U		0.274	4.00	1	06/23/2024 23:28	WG2310460
(S) o-Terphenyl	*79.5*			*18.0-148*		*06/23/2024 23:28*	WG2310460

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	06/22/2024 22:02	WG2310075
Anthracene	U		0.00230	0.00600	1	06/22/2024 22:02	WG2310075
Benzo(a)anthracene	U		0.00173	0.00600	1	06/22/2024 22:02	WG2310075
Benzo(b)fluoranthene	U		0.00153	0.00600	1	06/22/2024 22:02	WG2310075
Benzo(k)fluoranthene	U		0.00215	0.00600	1	06/22/2024 22:02	WG2310075
Benzo(a)pyrene	U		0.00179	0.00600	1	06/22/2024 22:02	WG2310075
Chrysene	U		0.00232	0.00600	1	06/22/2024 22:02	WG2310075
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	06/22/2024 22:02	WG2310075
Fluoranthene	U		0.00227	0.00600	1	06/22/2024 22:02	WG2310075
Fluorene	U		0.00205	0.00600	1	06/22/2024 22:02	WG2310075
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	06/22/2024 22:02	WG2310075
1-Methylnaphthalene	U		0.00449	0.0200	1	06/22/2024 22:02	WG2310075
2-Methylnaphthalene	U		0.00427	0.0200	1	06/22/2024 22:02	WG2310075
Naphthalene	U		0.00408	0.0200	1	06/22/2024 22:02	WG2310075
Pyrene	U		0.00200	0.00600	1	06/22/2024 22:02	WG2310075
(S) p-Terphenyl-d14	*94.8*			*23.0-120*		*06/22/2024 22:02*	WG2310075
(S) Nitrobenzene-d5	*70.1*			*14.0-149*		*06/22/2024 22:02*	WG2310075
(S) 2-Fluorobiphenyl	*76.8*			*34.0-125*		*06/22/2024 22:02*	WG2310075

Method Blank (MB)

(MB) R4085943-1 06/25/24 01:01

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

L1748337-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1748337-01 06/25/24 05:01 • (DUP) R4085943-11 06/25/24 05:09

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

L1748337-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748337-03 06/25/24 05:25 • (DUP) R4085943-12 06/25/24 05:48

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

Laboratory Control Sample (LCS)

(LCS) R4085943-2 06/25/24 01:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.4	104	80.0-120	

L1748324-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748324-07 06/25/24 01:57 • (MS) R4085943-4 06/25/24 02:13 • (MSD) R4085943-5 06/25/24 02:37

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	9.59	13.6	48.0	68.1	1	75.0-125	J6	J3 J6	34.7	20

L1748324-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1748324-07 06/25/24 01:57 • (MS) R4085943-6 06/25/24 02:45

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	631	U	498	78.8	50	75.0-125	

Method Blank (MB)

(MB) R4085760-1 06/24/24 08:50

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

L1749735-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1749735-07 06/24/24 13:51 • (DUP) R4085760-11 06/24/24 13:59

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

L1749735-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1749735-11 06/24/24 14:47 • (DUP) R4085760-12 06/24/24 14:55

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

Laboratory Control Sample (LCS)

(LCS) R4085760-2 06/24/24 08:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.2	102	80.0-120	

L1748337-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748337-05 06/24/24 09:06 • (MS) R4085760-4 06/24/24 09:22 • (MSD) R4085760-5 06/24/24 09:30

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	15.5	14.5	77.3	72.3	1	75.0-125		J6	6.71	20

L1748337-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748337-07 06/24/24 09:54 • (MS) R4085760-8 06/24/24 11:36 • (MSD) R4085760-9 06/24/24 11:43

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	12.3	13.9	61.7	69.5	1	75.0-125	J6	J6	11.8	20

L1748337-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1748337-05 06/24/24 09:06 • (MS) R4085760-6 06/24/24 09:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	648	U	518	79.9	50	75.0-125	

L1748337-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1748337-07 06/24/24 09:54 • (MS) R4085760-10 06/24/24 11:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	648	U	516	79.6	50	75.0-125	

L1748337-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748337-06 06/26/24 12:30 • (DUP) R4086663-2 06/26/24 12:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.38	8.38	1	0.000		1

Sample Narrative:

OS: 8.38 at 22.6C

DUP: 8.38 at 22.4C

Laboratory Control Sample (LCS)

(LCS) R4086663-1 06/26/24 12:30

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

Sample Narrative:

LCS: 10 at 21.9C

L1748337-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748337-03 06/27/24 15:15 • (DUP) R4087417-2 06/27/24 15:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.96	7.95	1	0.126		1

Sample Narrative:

OS: 7.96 at 22.5C

DUP: 7.95 at 22.7C

L1749832-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1749832-05 06/27/24 15:15 • (DUP) R4087417-3 06/27/24 15:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.76	7.72	1	0.517		1

Sample Narrative:

OS: 7.76 at 22C

DUP: 7.72 at 22.1C

Laboratory Control Sample (LCS)

(LCS) R4087417-1 06/27/24 15:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 22.1C

Method Blank (MB)

(MB) R4086790-1 06/26/24 14:00

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

L1748914-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1748914-02 06/26/24 14:00 • (DUP) R4086790-3 06/26/24 14:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	480	487	1	1.45		20

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

Laboratory Control Sample (LCS)

(LCS) R4086790-2 06/26/24 14:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	737	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4087387-1 06/27/24 14:35

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

L1749684-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1749684-04 06/27/24 14:35 • (DUP) R4087387-3 06/27/24 14:35

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	328	325	1	0.919		20

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

L1749830-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1749830-07 06/27/24 14:35 • (DUP) R4087387-4 06/27/24 14:35

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	49.2	48.7	1	1.02		20

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

Laboratory Control Sample (LCS)

(LCS) R4087387-2 06/27/24 14:35

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	730	99.6	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4086474-1 06/25/24 23:40

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) R4086474-2 06/25/24 23:42 • (LCSD) R4086474-3 06/25/24 23:43

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	1.07	1.05	107	105	80.0-120			2.21	20

Method Blank (MB)

(MB) R4086971-1 06/26/24 17:13

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) R4086971-2 06/26/24 17:15 • (LCSD) R4086971-3 06/26/24 17:17

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	1.15	1.13	115	113	80.0-120			1.96	20

Method Blank (MB)

(MB) R4085318-1 06/23/24 12:35

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

Laboratory Control Sample (LCS)

(LCS) R4085318-2 06/23/24 12:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	88.5	88.5	80.0-120	
Barium	100	85.1	85.1	80.0-120	
Cadmium	100	92.6	92.6	80.0-120	
Copper	100	86.1	86.1	80.0-120	
Lead	100	85.6	85.6	80.0-120	
Nickel	100	92.7	92.7	80.0-120	
Selenium	100	92.1	92.1	80.0-120	
Silver	20.0	18.6	93.1	80.0-120	
Zinc	100	86.7	86.7	80.0-120	

L1748381-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748381-06 06/23/24 12:42 • (MS) R4085318-5 06/23/24 12:52 • (MSD) R4085318-6 06/23/24 12:55

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	1.84	90.9	79.7	89.1	77.9	5	75.0-125			13.1	20
Barium	100	356	421	437	65.3	81.2	5	75.0-125	J6		3.70	20
Cadmium	100	0.106	97.2	84.0	97.1	83.9	5	75.0-125			14.5	20
Copper	100	4.52	93.9	79.3	89.4	74.8	5	75.0-125		J6	16.9	20
Lead	100	4.80	97.2	81.4	92.4	76.6	5	75.0-125			17.7	20
Nickel	100	4.22	95.7	82.1	91.4	77.9	5	75.0-125			15.3	20
Selenium	100	0.220	96.2	82.2	96.0	82.0	5	75.0-125			15.8	20
Silver	20.0	U	19.5	17.1	97.6	85.6	5	75.0-125			13.1	20
Zinc	100	17.8	105	91.7	87.1	73.9	5	75.0-125		J6	13.4	20

Method Blank (MB)

(MB) R4085139-2 06/22/24 03:19

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)	*89.0*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4085139-1 06/22/24 01:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.03	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*97.7*	*77.0-120*	

Method Blank (MB)

(MB) R4085218-3 06/21/24 15:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	*95.8*			*75.0-131*
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R4085218-1 06/21/24 13:19 • (LCSD) R4085218-2 06/21/24 14:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.121	0.123	96.8	98.4	70.0-123			1.64	20
Toluene	0.125	0.108	0.107	86.4	85.6	75.0-121			0.930	20
Ethylbenzene	0.125	0.101	0.0999	80.8	79.9	74.0-126			1.10	20
Xylenes, Total	0.375	0.310	0.297	82.7	79.2	72.0-127			4.28	20
1,2,4-Trimethylbenzene	0.125	0.122	0.120	97.6	96.0	70.0-126			1.65	20
1,3,5-Trimethylbenzene	0.125	0.119	0.118	95.2	94.4	73.0-127			0.844	20
(S) Toluene-d8				*97.2*	*97.3*	*75.0-131*				
(S) 4-Bromofluorobenzene				*96.9*	*97.1*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*102*	*109*	*70.0-130*				

Method Blank (MB)

(MB) R4085398-2 06/21/24 16:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*106*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*93.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4085398-1 06/21/24 14:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.111	88.8	70.0-123	
Toluene	0.125	0.122	97.6	75.0-121	
Ethylbenzene	0.125	0.127	102	74.0-126	
Xylenes, Total	0.375	0.387	103	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.130	104	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.129	103	73.0-127	
(S) Toluene-d8			*108*	*75.0-131*	
(S) 4-Bromofluorobenzene			*106*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*85.5*	*70.0-130*	

Method Blank (MB)

(MB) R4085755-1 06/23/24 16:32

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	*80.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4085755-2 06/23/24 16:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	38.1	76.2	50.0-150	
(S) o-Terphenyl			*91.9*	*18.0-148*	

L1748526-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748526-01 06/24/24 01:52 • (MS) R4085755-3 06/24/24 02:05 • (MSD) R4085755-4 06/24/24 02:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.3	U	U	U	0.000	0.000	40	50.0-150	J6	J6	0.000	20
(S) o-Terphenyl					*0.000*	*0.000*		*18.0-148*	J7	J7		

Sample Narrative:

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

Method Blank (MB)

(MB) R4086156-1 06/25/24 09:44

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	*70.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4086156-2 06/25/24 09:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	34.2	68.4	50.0-150	
(S) o-Terphenyl			*76.9*	*18.0-148*	

L1748337-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748337-01 06/25/24 10:09 • (MS) R4086156-3 06/25/24 10:21 • (MSD) R4086156-4 06/25/24 10:34

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	49.8	U	33.6	35.9	67.5	72.2	1	50.0-150			6.62	20
(S) o-Terphenyl					*71.2*	*73.4*		*18.0-148*				

Method Blank (MB)

(MB) R4085573-2 06/22/24 19:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	*102*			*23.0-120*
(S) Nitrobenzene-d5	*89.0*			*14.0-149*
(S) 2-Fluorobiphenyl	*104*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4085573-1 06/22/24 18:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0681	85.1	50.0-120	
Anthracene	0.0800	0.0727	90.9	50.0-126	
Benzo(a)anthracene	0.0800	0.0717	89.6	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0741	92.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0728	91.0	49.0-125	
Benzo(a)pyrene	0.0800	0.0669	83.6	42.0-120	
Chrysene	0.0800	0.0741	92.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0612	76.5	47.0-125	
Fluoranthene	0.0800	0.0841	105	49.0-129	
Fluorene	0.0800	0.0772	96.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0591	73.9	46.0-125	
1-Methylnaphthalene	0.0800	0.0824	103	51.0-121	
2-Methylnaphthalene	0.0800	0.0802	100	50.0-120	
Naphthalene	0.0800	0.0731	91.4	50.0-120	
Pyrene	0.0800	0.0600	75.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4085573-1 06/22/24 18:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*82.0*	*23.0-120*	
(S) Nitrobenzene-d5			*88.8*	*14.0-149*	
(S) 2-Fluorobiphenyl			*101*	*34.0-125*	

L1747046-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747046-10 06/23/24 02:47 • (MS) R4085573-3 06/23/24 03:05 • (MSD) R4085573-4 06/23/24 03:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0792	U	0.0683	0.0681	86.2	85.6	1	14.0-127			0.293	27
Anthracene	0.0792	U	0.0654	0.0733	82.6	92.1	1	10.0-145			11.4	30
Benzo(a)anthracene	0.0792	U	0.0721	0.0750	91.0	94.2	1	10.0-139			3.94	30
Benzo(b)fluoranthene	0.0792	U	0.0598	0.0639	75.5	80.3	1	10.0-140			6.63	36
Benzo(k)fluoranthene	0.0792	U	0.0569	0.0651	71.8	81.8	1	10.0-137			13.4	31
Benzo(a)pyrene	0.0792	U	0.0585	0.0709	73.9	89.1	1	10.0-141			19.2	31
Chrysene	0.0792	U	0.0733	0.0749	92.6	94.1	1	10.0-145			2.16	30
Dibenz(a,h)anthracene	0.0792	U	0.0580	0.0673	73.2	84.5	1	10.0-132			14.8	31
Fluoranthene	0.0792	U	0.0730	0.0844	92.2	106	1	10.0-153			14.5	33
Fluorene	0.0792	U	0.0935	0.0792	118	99.5	1	11.0-130			16.6	29
Indeno(1,2,3-cd)pyrene	0.0792	U	0.0564	0.0651	71.2	81.8	1	10.0-137			14.3	32
1-Methylnaphthalene	0.0792	U	0.0768	0.0763	97.0	95.9	1	10.0-142			0.653	28
2-Methylnaphthalene	0.0792	U	0.0763	0.0735	96.3	92.3	1	10.0-137			3.74	28
Naphthalene	0.0792	U	0.0717	0.0730	90.5	91.7	1	10.0-135			1.80	27
Pyrene	0.0792	U	0.0808	0.0707	102	88.8	1	10.0-148			13.3	35
(S) p-Terphenyl-d14					*112*	*91.8*		*23.0-120*				
(S) Nitrobenzene-d5					*143*	*118*		*14.0-149*				
(S) 2-Fluorobiphenyl					*92.9*	*92.8*		*34.0-125*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

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	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Civitas Resources
650 Southgate Dr
Windsor, CO 80550

Billing Information:
Bill to Costin
AFE: P1672CD
M/M: 8311.542
Pres Chk

Report to:
Tasman Civitas team / Costin McQueen

Email To: Tasman/Civitas DL and cmcqueen@civiresources.com

Project Description: State Bierdstadt 4-65 35-34 2AH

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #

Collected by (print): Cory Frost

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y *

Rush? (Lab MUST Be Notified)

Quote #

Date Results Needed

____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
CS - N01		SS	2' Bgs	6/15/2024	11:04 AM	4
CS-N02		SS	2' Bgs	6/15/2024	10:27 AM	4
CS-N03		SS	2' Bgs	6/15/2024	10:46 AM	4
CS-S01		SS	2' Bgs	6/15/2024	11:12 AM	4
CS-S02		SS	2' Bgs	6/15/2024	10:34 AM	4
CS-S03		SS	2' Bgs	6/15/2024	10:41 AM	4
CS-FS01		SS	4' Bgs	6/15/2024	10:10 AM	4
CS-FS02		SS	4' Bgs	6/15/2024	10:15 AM	4
CS-W01		SS	2' Bgs	6/15/2024	10:51 AM	4
CS-E01		SS	2' Bgs	6/15/2024	10:58 AM	4

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7315 3201 3893

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

L1748337

SDG # H230

Table #

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Remarks	Sample # (lab only)
Full 915	-01
Full 915	-02
Full 915	-03
Full 915	-04
Full 915	-05
Full 915	-06
Full 915	-07
Full 915	-08
Full 915	-09
Full 915	-10

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

	Date:	Time:		
Relinquished by: (Signature)	6/17/24	4:32 pm	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	6-18-24	18:00	Received by: (Signature)	Temp: EDA7 °C (1.5+0.3)=1.8 Bottles Received: 40 — If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Easton Orgn	Date: 6/19/24 Time: 0900 — Hold: — Condition: NCF / OK