

## Caerus Oil and Gas

Sample Delivery Group: L1762189  
Samples Received: 07/31/2024  
Project Number:  
Description: J14 496 11D-14 Flowline Release  
Site: J14 496 11D-14  
Report To: Jake J. / Brett M. / Blair R. / Andy V.  
143 Diamond Avenue  
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward  
Project Manager

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# TABLE OF CONTENTS

<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>5</b>
<b>Sr: Sample Results</b>	<b>6</b>
20240729-ELU J14 496-(11D-14-POR)@3 L1762189-01	<b>6</b>
20240729-ELU J14 496-(11D-14-BASE)@3 L1762189-02	<b>8</b>
20240729-ELU J14 496-(11D-14-NW)@2.5 L1762189-03	<b>10</b>
20240729-ELU J14 496-(11D-14-SW)@2.5 L1762189-04	<b>12</b>
20240729-ELU J14 496-(11D-14-EW)@3 L1762189-05	<b>14</b>
20240729-ELU J14 496-(11D-14-WW)@2 L1762189-06	<b>16</b>
<b>Qc: Quality Control Summary</b>	<b>18</b>
Wet Chemistry by Method 7199	<b>18</b>
Wet Chemistry by Method 9045D	<b>19</b>
Wet Chemistry by Method 9050AMod	<b>21</b>
Metals (ICP) by Method 6010B	<b>23</b>
Metals (ICP) by Method 6010B-NE493 Ch 2	<b>24</b>
Metals (ICPMS) by Method 6020	<b>25</b>
Volatile Organic Compounds (GC) by Method 8015D/GRO	<b>27</b>
Volatile Organic Compounds (GC/MS) by Method 8260B	<b>29</b>
Semi-Volatile Organic Compounds (GC) by Method 8015M	<b>30</b>
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	<b>31</b>
<b>Gl: Glossary of Terms</b>	<b>33</b>
<b>Al: Accreditations &amp; Locations</b>	<b>34</b>
<b>Sc: Sample Chain of Custody</b>	<b>35</b>



# SAMPLE SUMMARY

							Collected by	Collected date/time	Received date/time
<b>20240729-ELU J14 496-(11D-14-POR)@3 L1762189-01 Solid</b>							Olivia Floyd	07/29/24 09:55	07/31/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location			
Calculated Results	WG2336096	1	08/06/24 19:19	08/06/24 19:19	ZSA	Mt. Juliet, TN			
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 12:09	EKB	Mt. Juliet, TN			
Wet Chemistry by Method 9045D	WG2337242	1	08/06/24 14:05	08/06/24 21:20	KRB	Mt. Juliet, TN			
Wet Chemistry by Method 9050AMod	WG2337245	1	08/06/24 14:04	08/06/24 21:15	KRB	Mt. Juliet, TN			
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 15:51	ZSA	Mt. Juliet, TN			
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:29	MAP	Mt. Juliet, TN			
Metals (ICPMS) by Method 6020	WG2353816	5	08/31/24 22:43	09/02/24 09:20	SJM	Mt. Juliet, TN			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2336771	1	08/04/24 09:13	08/06/24 04:02	ACG	Mt. Juliet, TN			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 20:57	JAH	Mt. Juliet, TN			
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	20	08/07/24 15:13	08/08/24 11:18	JAS	Mt. Juliet, TN			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/08/24 02:44	DSH	Mt. Juliet, TN			

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

							Collected by	Collected date/time	Received date/time
<b>20240729-ELU J14 496-(11D-14-BASE)@3 L1762189-02 Solid</b>							Olivia Floyd	07/29/24 10:05	07/31/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location			
Calculated Results	WG2336100	1	08/08/24 11:18	08/08/24 11:18	MAP	Mt. Juliet, TN			
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 12:19	EKB	Mt. Juliet, TN			
Wet Chemistry by Method 9045D	WG2338803	1	08/08/24 10:19	08/08/24 11:29	BJM	Mt. Juliet, TN			
Wet Chemistry by Method 9050AMod	WG2338805	1	08/08/24 10:22	08/08/24 15:03	BJM	Mt. Juliet, TN			
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 15:53	ZSA	Mt. Juliet, TN			
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:31	MAP	Mt. Juliet, TN			
Metals (ICPMS) by Method 6020	WG2353816	5	08/31/24 22:43	09/02/24 09:36	SJM	Mt. Juliet, TN			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2336771	1	08/04/24 09:13	08/06/24 04:21	ACG	Mt. Juliet, TN			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 21:17	JAH	Mt. Juliet, TN			
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	2	08/07/24 15:13	08/08/24 11:18	JAS	Mt. Juliet, TN			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/08/24 03:02	DSH	Mt. Juliet, TN			

							Collected by	Collected date/time	Received date/time
<b>20240729-ELU J14 496-(11D-14-NW)@2.5 L1762189-03 Solid</b>							Olivia Floyd	07/29/24 10:20	07/31/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location			
Calculated Results	WG2336096	1	08/06/24 17:59	08/06/24 17:59	ZSA	Mt. Juliet, TN			
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 12:30	EKB	Mt. Juliet, TN			
Wet Chemistry by Method 9045D	WG2337242	1	08/06/24 14:05	08/06/24 21:20	KRB	Mt. Juliet, TN			
Wet Chemistry by Method 9050AMod	WG2337245	1	08/06/24 14:04	08/06/24 21:15	KRB	Mt. Juliet, TN			
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 15:55	ZSA	Mt. Juliet, TN			
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:33	MAP	Mt. Juliet, TN			
Metals (ICPMS) by Method 6020	WG2353816	5	08/31/24 22:43	09/02/24 10:47	SJM	Mt. Juliet, TN			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2336771	1	08/04/24 09:13	08/06/24 04:40	ACG	Mt. Juliet, TN			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 21:37	JAH	Mt. Juliet, TN			
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	1	08/07/24 15:13	08/07/24 23:28	KKS	Mt. Juliet, TN			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/07/24 22:16	DSH	Mt. Juliet, TN			

							Collected by	Collected date/time	Received date/time
<b>20240729-ELU J14 496-(11D-14-SW)@2.5 L1762189-04 Solid</b>							Olivia Floyd	07/29/24 09:50	07/31/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location			
Calculated Results	WG2336100	1	08/08/24 11:20	08/08/24 11:20	MAP	Mt. Juliet, TN			
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 12:40	EKB	Mt. Juliet, TN			
Wet Chemistry by Method 9045D	WG2338803	1	08/08/24 10:19	08/08/24 11:29	BJM	Mt. Juliet, TN			
Wet Chemistry by Method 9050AMod	WG2338805	1	08/08/24 10:22	08/08/24 15:03	BJM	Mt. Juliet, TN			
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 15:56	ZSA	Mt. Juliet, TN			

# SAMPLE SUMMARY

20240729-ELU J14 496-(11D-14-SW)@2.5 L1762189-04 Solid Collected by Olivia Floyd    Collected date/time 07/29/24 09:50    Received date/time 07/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2334476	10	08/05/24 10:53	08/06/24 10:03	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:34	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353816	5	08/31/24 22:43	09/02/24 10:50	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2336771	1	08/04/24 09:13	08/06/24 08:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 21:56	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	20	08/07/24 15:13	08/08/24 03:05	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/08/24 03:20	DSH	Mt. Juliet, TN



20240729-ELU J14 496-(11D-14-EW)@3 L1762189-05 Solid Collected by Olivia Floyd    Collected date/time 07/29/24 10:10    Received date/time 07/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2336096	1	08/06/24 19:25	08/06/24 19:25	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 12:51	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2337242	1	08/06/24 14:05	08/06/24 21:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2337245	1	08/06/24 14:04	08/06/24 21:15	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 16:02	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:36	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353820	5	08/31/24 07:57	09/01/24 14:09	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2337216	1	08/04/24 09:13	08/06/24 15:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 22:16	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	1	08/07/24 15:13	08/07/24 23:14	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/07/24 22:34	DSH	Mt. Juliet, TN

20240729-ELU J14 496-(11D-14-WW)@2 L1762189-06 Solid Collected by Olivia Floyd    Collected date/time 07/29/24 09:40    Received date/time 07/31/24 09:00

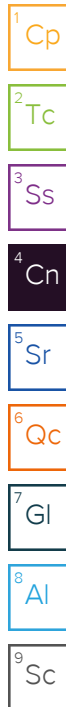
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2336100	1	08/08/24 11:21	08/08/24 11:21	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2335476	1	08/08/24 15:39	08/09/24 13:22	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2338803	1	08/08/24 10:19	08/08/24 11:29	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2338805	1	08/08/24 10:22	08/08/24 15:03	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2334476	1	08/05/24 10:53	08/05/24 16:03	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2336098	1	08/06/24 11:22	08/07/24 09:38	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353820	5	08/31/24 07:57	09/01/24 14:25	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2337216	1	08/04/24 09:13	08/06/24 15:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2336135	1	08/04/24 09:13	08/04/24 22:36	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2337620	1	08/07/24 15:13	08/08/24 00:50	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2337611	1	08/07/24 08:17	08/08/24 03:38	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

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Level II Report - Version 1: 08/12/24 15:35  
Level II Report - Version 2: 08/13/24 11:50

## Project Narrative

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Report reissued to correct sample ID  
Report reissued for selenium reruns - Tony Gibson 09/05/2024

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	21.8		1	08/06/2024 19:19	WG2336096

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	08/09/2024 12:09	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.87	T8	1	08/06/2024 21:20	<a href="#">WG2337242</a>

Sample Narrative:

L1762189-01 WG2337242: 7.87 at 23C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	9440		10.0	1	08/06/2024 21:15	<a href="#">WG2337245</a>

Sample Narrative:

L1762189-01 WG2337245: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.25	J	0.518	2.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Barium	2130		0.0852	0.500	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Cadmium	0.300	B J	0.0471	0.500	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Copper	21.7		0.400	2.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Lead	8.08		0.208	0.500	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Nickel	7.36		0.132	2.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>
Zinc	199		0.832	5.00	1	08/05/2024 15:51	<a href="#">WG2334476</a>

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

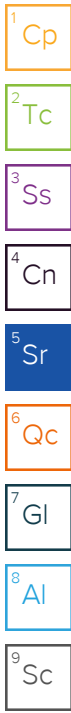
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.00		0.0167	0.200	1	08/07/2024 09:29	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.458	J	0.180	2.50	5	09/02/2024 09:20	<a href="#">WG2353816</a>

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	7.34		0.0217	0.100	1	08/06/2024 04:02	<a href="#">WG2336771</a>
(S) a,a,a-Trifluorotoluene(FID)	85.2			77.0-120		08/06/2024 04:02	<a href="#">WG2336771</a>



## 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	0.00107		0.000467	0.00100	1	08/04/2024 20:57	<a href="#">WG2336135</a>
Toluene	0.0135		0.00130	0.00500	1	08/04/2024 20:57	<a href="#">WG2336135</a>
Ethylbenzene	0.0230		0.000737	0.00250	1	08/04/2024 20:57	<a href="#">WG2336135</a>
Xylenes, Total	0.223		0.000880	0.00650	1	08/04/2024 20:57	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	0.197		0.00158	0.00500	1	08/04/2024 20:57	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	0.788		0.00200	0.00500	1	08/04/2024 20:57	<a href="#">WG2336135</a>
(S) Toluene-d8	107			75.0-131		08/04/2024 20:57	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	148	<u>J1</u>		67.0-138		08/04/2024 20:57	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	86.6			70.0-130		08/04/2024 20:57	<a href="#">WG2336135</a>

## 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	960		32.2	80.0	20	08/08/2024 11:18	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	819		5.48	80.0	20	08/08/2024 11:18	<a href="#">WG2337620</a>
(S) o-Terphenyl	75.0	<u>J7</u>		18.0-148		08/08/2024 11:18	<a href="#">WG2337620</a>

## Sample Narrative:

L1762189-01 WG2337620: Dilution due to matrix impact during extract concentration procedure.

## 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	0.0220		0.00209	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Chrysene	0.00252	<u>J</u>	0.00232	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Fluoranthene	0.00300	<u>J</u>	0.00227	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Fluorene	0.0949		0.00205	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
1-Methylnaphthalene	0.359		0.00449	0.0200	1	08/08/2024 02:44	<a href="#">WG2337611</a>
2-Methylnaphthalene	0.343		0.00427	0.0200	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Naphthalene	0.0370		0.00408	0.0200	1	08/08/2024 02:44	<a href="#">WG2337611</a>
Pyrene	0.00764		0.00200	0.00600	1	08/08/2024 02:44	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	80.0			23.0-120		08/08/2024 02:44	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	229	<u>J1</u>		14.0-149		08/08/2024 02:44	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	57.1			34.0-125		08/08/2024 02:44	<a href="#">WG2337611</a>

## Sample Narrative:

L1762189-01 WG2337611: Surrogate failure due to matrix interference

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	11.5		1	08/08/2024 11:18	WG2336100

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.349	J	0.255	1.00	1	08/09/2024 12:19	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.00	T8	1	08/08/2024 11:29	<a href="#">WG2338803</a>

Sample Narrative:

L1762189-02 WG2338803: 8 at 23.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	5140		10.0	1	08/08/2024 15:03	<a href="#">WG2338805</a>

Sample Narrative:

L1762189-02 WG2338805: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.49		0.518	2.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Barium	2250		0.0852	0.500	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Cadmium	0.246	B J	0.0471	0.500	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Copper	24.9		0.400	2.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Lead	12.6		0.208	0.500	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Nickel	15.5		0.132	2.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>
Zinc	48.1		0.832	5.00	1	08/05/2024 15:53	<a href="#">WG2334476</a>

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	0.714		0.0167	0.200	1	08/07/2024 09:31	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.401	J	0.180	2.50	5	09/02/2024 09:36	<a href="#">WG2353816</a>

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	0.210		0.0217	0.100	1	08/06/2024 04:21	<a href="#">WG2336771</a>
(S) a,a,a-Trifluorotoluene(FID)	80.4			77.0-120		08/06/2024 04:21	<a href="#">WG2336771</a>

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	08/04/2024 21:17	<a href="#">WG2336135</a>
Toluene	0.00230	U	0.00130	0.00500	1	08/04/2024 21:17	<a href="#">WG2336135</a>
Ethylbenzene	U		0.000737	0.00250	1	08/04/2024 21:17	<a href="#">WG2336135</a>
Xylenes, Total	0.00208	U	0.000880	0.00650	1	08/04/2024 21:17	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	0.00170	U	0.00158	0.00500	1	08/04/2024 21:17	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	0.0170		0.00200	0.00500	1	08/04/2024 21:17	<a href="#">WG2336135</a>
(S) Toluene-d8	103			75.0-131		08/04/2024 21:17	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/04/2024 21:17	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	88.4			70.0-130		08/04/2024 21:17	<a href="#">WG2336135</a>

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr

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	216		3.22	8.00	2	08/08/2024 11:18	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	292		0.548	8.00	2	08/08/2024 11:18	<a href="#">WG2337620</a>
(S) o-Terphenyl	28.7			18.0-148		08/08/2024 11:18	<a href="#">WG2337620</a>

6 Qc  
7 Gl  
8 Al

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	0.00258	U	0.00209	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Chrysene	U		0.00232	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Fluoranthene	U		0.00227	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Fluorene	0.0155		0.00205	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
1-Methylnaphthalene	0.0487		0.00449	0.0200	1	08/08/2024 03:02	<a href="#">WG2337611</a>
2-Methylnaphthalene	0.0652		0.00427	0.0200	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Naphthalene	0.0131	U	0.00408	0.0200	1	08/08/2024 03:02	<a href="#">WG2337611</a>
Pyrene	U		0.00200	0.00600	1	08/08/2024 03:02	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	63.6			23.0-120		08/08/2024 03:02	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	86.3			14.0-149		08/08/2024 03:02	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	64.1			34.0-125		08/08/2024 03:02	<a href="#">WG2337611</a>

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	4.79		1	08/06/2024 17:59	WG2336096

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.366	J	0.255	1.00	1	08/09/2024 12:30	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.64	T8	1	08/06/2024 21:20	<a href="#">WG2337242</a>

Sample Narrative:

L1762189-03 WG2337242: 8.64 at 22.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	653		10.0	1	08/06/2024 21:15	<a href="#">WG2337245</a>

Sample Narrative:

L1762189-03 WG2337245: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.71	J	0.518	2.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Barium	3000		0.0852	0.500	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Cadmium	0.231	B J	0.0471	0.500	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Copper	19.7		0.400	2.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Lead	9.76		0.208	0.500	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Nickel	12.1		0.132	2.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>
Zinc	30.8		0.832	5.00	1	08/05/2024 15:55	<a href="#">WG2334476</a>

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

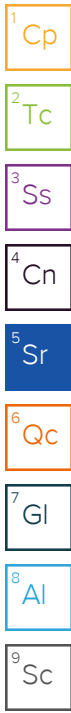
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.160	J	0.0167	0.200	1	08/07/2024 09:33	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.289	J	0.180	2.50	5	09/02/2024 10:47	<a href="#">WG2353816</a>

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	0.0475	J	0.0217	0.100	1	08/06/2024 04:40	<a href="#">WG2336771</a>
(S) a,a,a-Trifluorotoluene(FID)	82.5			77.0-120		08/06/2024 04:40	<a href="#">WG2336771</a>



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	08/04/2024 21:37	<a href="#">WG2336135</a>
Toluene	0.00188	J	0.00130	0.00500	1	08/04/2024 21:37	<a href="#">WG2336135</a>
Ethylbenzene	U		0.000737	0.00250	1	08/04/2024 21:37	<a href="#">WG2336135</a>
Xylenes, Total	U		0.000880	0.00650	1	08/04/2024 21:37	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/04/2024 21:37	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/04/2024 21:37	<a href="#">WG2336135</a>
(S) Toluene-d8	106			75.0-131		08/04/2024 21:37	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	107			67.0-138		08/04/2024 21:37	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	84.2			70.0-130		08/04/2024 21:37	<a href="#">WG2336135</a>

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	7.54		1.61	4.00	1	08/07/2024 23:28	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	15.6		0.274	4.00	1	08/07/2024 23:28	<a href="#">WG2337620</a>
(S) o-Terphenyl	25.2			18.0-148		08/07/2024 23:28	<a href="#">WG2337620</a>

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	08/07/2024 22:16	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Chrysene	U		0.00232	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Fluoranthene	U		0.00227	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Fluorene	U		0.00205	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	08/07/2024 22:16	<a href="#">WG2337611</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Naphthalene	U		0.00408	0.0200	1	08/07/2024 22:16	<a href="#">WG2337611</a>
Pyrene	U		0.00200	0.00600	1	08/07/2024 22:16	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	59.6			23.0-120		08/07/2024 22:16	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	58.4			14.0-149		08/07/2024 22:16	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	60.5			34.0-125		08/07/2024 22:16	<a href="#">WG2337611</a>

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	23.4		1	08/08/2024 11:20	WG2336100

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	08/09/2024 12:40	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.32	<u>T8</u>	1	08/08/2024 11:29	<a href="#">WG2338803</a>

Sample Narrative:

L1762189-04 WG2338803: 8.32 at 23.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	4730		10.0	1	08/08/2024 15:03	<a href="#">WG2338805</a>

Sample Narrative:

L1762189-04 WG2338805: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.69		0.518	2.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Barium	7570		0.852	5.00	10	08/06/2024 10:03	<a href="#">WG2334476</a>
Cadmium	0.191	<u>B J</u>	0.0471	0.500	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Copper	43.5		0.400	2.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Lead	13.6		0.208	0.500	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Nickel	14.6		0.132	2.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>
Zinc	62.0		0.832	5.00	1	08/05/2024 15:56	<a href="#">WG2334476</a>

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	0.977		0.0167	0.200	1	08/07/2024 09:34	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.690	<u>J</u>	0.180	2.50	5	09/02/2024 10:50	<a href="#">WG2353816</a>

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	2.96		0.0217	0.100	1	08/06/2024 08:22	<a href="#">WG2336771</a>
(S) a,a,a-Trifluorotoluene(FID)	84.1			77.0-120		08/06/2024 08:22	<a href="#">WG2336771</a>

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	08/04/2024 21:56	<a href="#">WG2336135</a>
Toluene	0.00322	<u>J</u>	0.00130	0.00500	1	08/04/2024 21:56	<a href="#">WG2336135</a>
Ethylbenzene	U		0.000737	0.00250	1	08/04/2024 21:56	<a href="#">WG2336135</a>
Xylenes, Total	0.00565	<u>J</u>	0.000880	0.00650	1	08/04/2024 21:56	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	0.00160	<u>J</u>	0.00158	0.00500	1	08/04/2024 21:56	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	0.0708		0.00200	0.00500	1	08/04/2024 21:56	<a href="#">WG2336135</a>
(S) Toluene-d8	103			75.0-131		08/04/2024 21:56	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	99.6			67.0-138		08/04/2024 21:56	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	79.2			70.0-130		08/04/2024 21:56	<a href="#">WG2336135</a>

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	962	<u>V</u>	32.2	80.0	20	08/08/2024 03:05	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	100		5.48	80.0	20	08/08/2024 03:05	<a href="#">WG2337620</a>
(S) o-Terphenyl	34.5	<u>J7</u>		18.0-148		08/08/2024 03:05	<a href="#">WG2337620</a>

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	0.0344		0.00209	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	0.00188	<u>J</u>	0.00153	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Chrysene	0.00421	<u>J</u>	0.00232	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Fluoranthene	0.00545	<u>J</u>	0.00227	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Fluorene	0.135		0.00205	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
1-Methylnaphthalene	0.282		0.00449	0.0200	1	08/08/2024 03:20	<a href="#">WG2337611</a>
2-Methylnaphthalene	0.191		0.00427	0.0200	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Naphthalene	0.0254		0.00408	0.0200	1	08/08/2024 03:20	<a href="#">WG2337611</a>
Pyrene	0.00698		0.00200	0.00600	1	08/08/2024 03:20	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	69.5			23.0-120		08/08/2024 03:20	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	256	<u>J1</u>		14.0-149		08/08/2024 03:20	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	44.4			34.0-125		08/08/2024 03:20	<a href="#">WG2337611</a>

Sample Narrative:

L1762189-04 WG2337611: Surrogate failure due to matrix interference

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	8.35		1	08/06/2024 19:25	WG2336096

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.258	J	0.255	1.00	1	08/09/2024 12:51	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.84	T8	1	08/06/2024 21:20	<a href="#">WG2337242</a>

Sample Narrative:

L1762189-05 WG2337242: 7.84 at 23.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	8610		10.0	1	08/06/2024 21:15	<a href="#">WG2337245</a>

Sample Narrative:

L1762189-05 WG2337245: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.77		0.518	2.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Barium	674		0.0852	0.500	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Cadmium	0.184	B J	0.0471	0.500	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Copper	12.5		0.400	2.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Lead	11.1		0.208	0.500	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Nickel	12.8		0.132	2.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>
Zinc	90.8		0.832	5.00	1	08/05/2024 16:02	<a href="#">WG2334476</a>

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

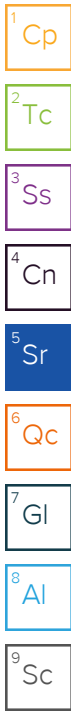
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.722		0.0167	0.200	1	08/07/2024 09:36	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.449	J	0.180	2.50	5	09/01/2024 14:09	<a href="#">WG2353820</a>

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	0.0561	B J	0.0217	0.100	1	08/06/2024 15:08	<a href="#">WG2337216</a>
(S) a,a,a-Trifluorotoluene(FID)	83.8			77.0-120		08/06/2024 15:08	<a href="#">WG2337216</a>



## 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	08/04/2024 22:16	<a href="#">WG2336135</a>
Toluene	0.00218	U	0.00130	0.00500	1	08/04/2024 22:16	<a href="#">WG2336135</a>
Ethylbenzene	0.00188	U	0.000737	0.00250	1	08/04/2024 22:16	<a href="#">WG2336135</a>
Xylenes, Total	0.00285	U	0.000880	0.00650	1	08/04/2024 22:16	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	0.00240	U	0.00158	0.00500	1	08/04/2024 22:16	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	0.00222	U	0.00200	0.00500	1	08/04/2024 22:16	<a href="#">WG2336135</a>
(S) Toluene-d8	103			75.0-131		08/04/2024 22:16	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/04/2024 22:16	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	83.2			70.0-130		08/04/2024 22:16	<a href="#">WG2336135</a>

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.21		1.61	4.00	1	08/07/2024 23:14	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	5.46		0.274	4.00	1	08/07/2024 23:14	<a href="#">WG2337620</a>
(S) o-Terphenyl	30.8			18.0-148		08/07/2024 23:14	<a href="#">WG2337620</a>

## 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	08/07/2024 22:34	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Chrysene	U		0.00232	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Fluoranthene	U		0.00227	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Fluorene	U		0.00205	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
1-Methylnaphthalene	U		0.00449	0.0200	1	08/07/2024 22:34	<a href="#">WG2337611</a>
2-Methylnaphthalene	U		0.00427	0.0200	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Naphthalene	U		0.00408	0.0200	1	08/07/2024 22:34	<a href="#">WG2337611</a>
Pyrene	U		0.00200	0.00600	1	08/07/2024 22:34	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	76.3			23.0-120		08/07/2024 22:34	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	70.3			14.0-149		08/07/2024 22:34	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	72.3			34.0-125		08/07/2024 22:34	<a href="#">WG2337611</a>

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	4.03		1	08/08/2024 11:21	WG2336100

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	08/09/2024 13:22	<a href="#">WG2335476</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.64	<u>T8</u>	1	08/08/2024 11:29	<a href="#">WG2338803</a>

Sample Narrative:

L1762189-06 WG2338803: 8.64 at 23.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	316		10.0	1	08/08/2024 15:03	<a href="#">WG2338805</a>

Sample Narrative:

L1762189-06 WG2338805: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.627	<u>J</u>	0.518	2.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Barium	113		0.0852	0.500	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Cadmium	0.105	<u>B J</u>	0.0471	0.500	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Copper	3.68		0.400	2.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Lead	3.02	<u>B</u>	0.208	0.500	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Nickel	2.56		0.132	2.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Selenium	U		0.764	2.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Silver	U		0.127	1.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>
Zinc	9.17		0.832	5.00	1	08/05/2024 16:03	<a href="#">WG2334476</a>

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

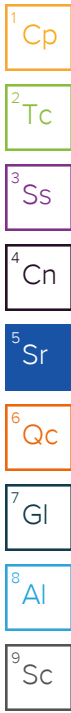
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.123	<u>J</u>	0.0167	0.200	1	08/07/2024 09:38	<a href="#">WG2336098</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.444	<u>J</u>	0.180	2.50	5	09/01/2024 14:25	<a href="#">WG2353820</a>

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	0.0647	<u>B J</u>	0.0217	0.100	1	08/06/2024 15:28	<a href="#">WG2337216</a>
(S) a,a,a-Trifluorotoluene(FID)	80.7			77.0-120		08/06/2024 15:28	<a href="#">WG2337216</a>



## 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	08/04/2024 22:36	<a href="#">WG2336135</a>
Toluene	U		0.00130	0.00500	1	08/04/2024 22:36	<a href="#">WG2336135</a>
Ethylbenzene	U		0.000737	0.00250	1	08/04/2024 22:36	<a href="#">WG2336135</a>
Xylenes, Total	U		0.000880	0.00650	1	08/04/2024 22:36	<a href="#">WG2336135</a>
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	08/04/2024 22:36	<a href="#">WG2336135</a>
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	08/04/2024 22:36	<a href="#">WG2336135</a>
(S) Toluene-d8	106			75.0-131		08/04/2024 22:36	<a href="#">WG2336135</a>
(S) 4-Bromofluorobenzene	105			67.0-138		08/04/2024 22:36	<a href="#">WG2336135</a>
(S) 1,2-Dichloroethane-d4	79.3			70.0-130		08/04/2024 22:36	<a href="#">WG2336135</a>

## 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	18.2		1.61	4.00	1	08/08/2024 00:50	<a href="#">WG2337620</a>
C28-C36 Motor Oil Range	34.9		0.274	4.00	1	08/08/2024 00:50	<a href="#">WG2337620</a>
(S) o-Terphenyl	39.6			18.0-148		08/08/2024 00:50	<a href="#">WG2337620</a>

## 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	08/08/2024 03:38	<a href="#">WG2337611</a>
Anthracene	U		0.00230	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Benzo(a)anthracene	U		0.00173	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Benzo(b)fluoranthene	U		0.00153	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Benzo(k)fluoranthene	U		0.00215	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Benzo(a)pyrene	U		0.00179	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Chrysene	U		0.00232	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Fluoranthene	U		0.00227	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Fluorene	U		0.00205	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
1-Methylnaphthalene	0.0115	U	0.00449	0.0200	1	08/08/2024 03:38	<a href="#">WG2337611</a>
2-Methylnaphthalene	0.0247		0.00427	0.0200	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Naphthalene	0.00877	U	0.00408	0.0200	1	08/08/2024 03:38	<a href="#">WG2337611</a>
Pyrene	U		0.00200	0.00600	1	08/08/2024 03:38	<a href="#">WG2337611</a>
(S) p-Terphenyl-d14	82.1			23.0-120		08/08/2024 03:38	<a href="#">WG2337611</a>
(S) Nitrobenzene-d5	82.0			14.0-149		08/08/2024 03:38	<a href="#">WG2337611</a>
(S) 2-Fluorobiphenyl	78.5			34.0-125		08/08/2024 03:38	<a href="#">WG2337611</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4104951-1 08/09/24 09:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	U		0.255	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1762189-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1762189-06 08/09/24 13:22 • (DUP) R4104951-7 08/09/24 13:33

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	U	U	1	0.000		20

L1762239-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1762239-06 08/09/24 14:04 • (DUP) R4104951-8 08/09/24 14:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4104951-2 08/09/24 09:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	10.0	9.33	93.3	80.0-120	

L1761508-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1761508-10 08/09/24 09:52 • (MS) R4104951-3 08/09/24 10:03 • (MSD) R4104951-4 08/09/24 10:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium	20.0	U	19.9	20.1	99.4	100	1	75.0-125			0.983	20

L1761508-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1761508-10 08/09/24 09:52 • (MS) R4104951-9 08/09/24 10:24

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	638	U	451	70.7	50	75.0-125	<u>J6</u>

L1762177-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1762177-05 08/06/24 21:20 • (DUP) R4103478-2 08/06/24 21:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
pH	7.80	7.79	1	0.128		1

Sample Narrative:

OS: 7.8 at 23.1C

DUP: 7.79 at 23C

L1762177-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1762177-11 08/06/24 21:20 • (DUP) R4103478-3 08/06/24 21:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
pH	7.90	7.90	1	0.000		1

Sample Narrative:

OS: 7.9 at 23.1C

DUP: 7.9 at 23.2C

Laboratory Control Sample (LCS)

(LCS) R4103478-1 08/06/24 21:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 22.8C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1762189-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1762189-02 08/08/24 11:29 • (DUP) R4104247-2 08/08/24 11:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
pH	8.00	7.96	1	0.501		1

Sample Narrative:

OS: 8 at 23.8C  
DUP: 7.96 at 23.8C

Laboratory Control Sample (LCS)

(LCS) R4104247-1 08/08/24 11:29

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

Sample Narrative:

LCS: 10 at 23C

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Method Blank (MB)

(MB) R4103466-1 08/06/24 21:15

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

L1762177-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1762177-01 08/06/24 21:15 • (DUP) R4103466-3 08/06/24 21:15

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Specific Conductance	7050	7000	1	0.712		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1762189-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1762189-05 08/06/24 21:15 • (DUP) R4103466-4 08/06/24 21:15

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Specific Conductance	8610	8600	1	0.116		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4103466-2 08/06/24 21:15

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	754	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) R4104468-1 08/08/24 15:03

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

L1762660-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1762660-08 08/08/24 15:03 • (DUP) R4104468-3 08/08/24 15:03

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP RPD Limits	DUP Qualifier
Specific Conductance	1020	1020	1	0.0983	20	

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4104468-2 08/08/24 15:03

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	749	102	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) R4102906-1 08/05/24 15:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	0.0861	U	0.0471	0.500
Copper	U		0.400	2.00
Lead	0.333	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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R4102906-2 08/05/24 15:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	106	106	80.0-120	
Barium	100	109	109	80.0-120	
Cadmium	100	104	104	80.0-120	
Copper	100	105	105	80.0-120	
Lead	100	107	107	80.0-120	
Nickel	100	105	105	80.0-120	
Selenium	100	101	101	80.0-120	
Silver	20.0	21.7	108	80.0-120	
Zinc	100	106	106	80.0-120	

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1761804-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1761804-07 08/05/24 15:24 • (MS) R4102906-5 08/05/24 15:29 • (MSD) R4102906-6 08/05/24 15:31

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.23	108	107	105	104	1	75.0-125			0.770	20
Barium	100	77.9	175	191	96.9	113	1	75.0-125			9.03	20
Copper	100	19.3	120	123	101	103	1	75.0-125			1.95	20
Lead	100	10.3	117	119	107	109	1	75.0-125			1.94	20
Nickel	100	15.8	120	120	104	104	1	75.0-125			0.152	20
Selenium	100	U	92.2	91.1	92.2	91.1	1	75.0-125			1.22	20
Silver	20.0	U	22.6	22.6	113	113	1	75.0-125			0.303	20
Zinc	100	34.3	134	137	99.7	102	1	75.0-125			1.93	20

Method Blank (MB)

(MB) R4103750-1 08/07/24 09:03

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) R4103750-2 08/07/24 09:05 • (LCSD) R4103750-3 08/07/24 09:06

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	1.05	1.07	105	107	80.0-120			1.52	20

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

Method Blank (MB)

(MB) R4114572-1 09/02/24 09:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	U		0.180	2.50

Laboratory Control Sample (LCS)

(LCS) R4114572-2 09/02/24 09:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	95.6	95.6	80.0-120	

L1762189-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762189-01 09/02/24 09:20 • (MS) R4114572-5 09/02/24 09:29 • (MSD) R4114572-6 09/02/24 09:32

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 %
Selenium	100	0.458	102	95.5	101	95.0	5	75.0-125			6.51	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4114476-1 09/01/24 14:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	U		0.180	2.50

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4114476-2 09/01/24 14:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	88.3	88.3	80.0-120	

4 Cn

5 Sr

L1762189-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762189-05 09/01/24 14:09 • (MS) R4114476-5 09/01/24 14:19 • (MSD) R4114476-6 09/01/24 14:22

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 %
Selenium	100	0.449	101	97.9	101	97.5	5	75.0-125			3.52	20

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4103628-2 08/05/24 23:13

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
<sup>(S)</sup> a,a,a-Trifluorotoluene(FID)	84.7			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4103628-1 08/05/24 22:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	4.88	97.6	72.0-127	
<sup>(S)</sup> a,a,a-Trifluorotoluene(FID)			96.3	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) R4103609-2 08/06/24 12:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0235	↓	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	85.3			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4103609-1 08/06/24 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	4.89	97.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			95.1	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) R4103295-3 08/04/24 14:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	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	103			75.0-131
(S) 4-Bromofluorobenzene	100			67.0-138
(S) 1,2-Dichloroethane-d4	88.8			70.0-130

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

(LCS) R4103295-1 08/04/24 13:00 • (LCSD) R4103295-2 08/04/24 13:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.128	0.129	102	103	70.0-123			0.778	20
Toluene	0.125	0.120	0.128	96.0	102	75.0-121			6.45	20
Ethylbenzene	0.125	0.121	0.129	96.8	103	74.0-126			6.40	20
Xylenes, Total	0.375	0.404	0.436	108	116	72.0-127			7.62	20
1,2,4-Trimethylbenzene	0.125	0.126	0.138	101	110	70.0-126			9.09	20
1,3,5-Trimethylbenzene	0.125	0.120	0.128	96.0	102	73.0-127			6.45	20
(S) Toluene-d8				101	104	75.0-131				
(S) 4-Bromofluorobenzene				101	102	67.0-138				
(S) 1,2-Dichloroethane-d4				101	97.0	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4104220-1 08/07/24 22:47

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	56.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4104220-2 08/07/24 23:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	38.0	76.0	50.0-150	
(S) o-Terphenyl			45.5	18.0-148	

L1762189-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762189-04 08/08/24 03:05 • (MS) R4104220-3 08/08/24 03:19 • (MSD) R4104220-4 08/08/24 03:33

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.5	962	990	1140	57.7	367	20	50.0-150		V	14.1	20
(S) o-Terphenyl					34.7	38.2		18.0-148	J7	J7		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4104355-2 08/07/24 21:58

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	93.2			23.0-120
(S) Nitrobenzene-d5	55.8			14.0-149
(S) 2-Fluorobiphenyl	75.9			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4104355-1 08/07/24 21:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0651	81.4	50.0-120	
Anthracene	0.0800	0.0637	79.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0619	77.4	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0677	84.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0619	77.4	49.0-125	
Benzo(a)pyrene	0.0800	0.0574	71.8	42.0-120	
Chrysene	0.0800	0.0676	84.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0654	81.8	47.0-125	
Fluoranthene	0.0800	0.0690	86.3	49.0-129	
Fluorene	0.0800	0.0724	90.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0602	75.3	46.0-125	
1-Methylnaphthalene	0.0800	0.0737	92.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0712	89.0	50.0-120	
Naphthalene	0.0800	0.0682	85.3	50.0-120	
Pyrene	0.0800	0.0656	82.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4104355-1 08/07/24 21:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			89.9	23.0-120	
(S) Nitrobenzene-d5			76.4	14.0-149	
(S) 2-Fluorobiphenyl			85.3	34.0-125	

L1762177-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762177-11 08/08/24 01:51 • (MS) R4104355-3 08/08/24 02:09 • (MSD) R4104355-4 08/08/24 02:27

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	0.0772	U	0.0618	0.0632	80.1	79.0	1	14.0-127			2.24	27
Anthracene	0.0772	U	0.0761	0.0773	98.6	96.6	1	10.0-145			1.56	30
Benzo(a)anthracene	0.0772	0.00544	0.0651	0.0669	77.3	76.8	1	10.0-139			2.73	30
Benzo(b)fluoranthene	0.0772	0.00914	0.0512	0.0524	54.5	54.1	1	10.0-140			2.32	36
Benzo(k)fluoranthene	0.0772	U	0.0453	0.0453	58.7	56.6	1	10.0-137			0.000	31
Benzo(a)pyrene	0.0772	0.00274	0.0497	0.0492	60.8	58.1	1	10.0-141			1.01	31
Chrysene	0.0772	0.0121	0.0677	0.0691	72.0	71.3	1	10.0-145			2.05	30
Dibenz(a,h)anthracene	0.0772	U	0.0446	0.0460	57.8	57.5	1	10.0-132			3.09	31
Fluoranthene	0.0772	0.0113	0.0700	0.0724	76.0	76.4	1	10.0-153			3.37	33
Fluorene	0.0772	U	0.0801	0.0844	104	105	1	11.0-130			5.23	29
Indeno(1,2,3-cd)pyrene	0.0772	U	0.0419	0.0434	54.3	54.3	1	10.0-137			3.52	32
1-Methylnaphthalene	0.0772	0.283	0.315	0.388	41.5	131	1	10.0-142			20.8	28
2-Methylnaphthalene	0.0772	0.452	0.458	0.561	7.77	136	1	10.0-137	V		20.2	28
Naphthalene	0.0772	0.180	0.216	0.274	46.6	117	1	10.0-135			23.7	27
Pyrene	0.0772	0.0968	0.147	0.153	65.0	70.3	1	10.0-148			4.00	35
(S) p-Terphenyl-d14					71.4	65.6		23.0-120				
(S) Nitrobenzene-d5					45.8	53.5		14.0-149				
(S) 2-Fluorobiphenyl					57.4	58.2		34.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# 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.

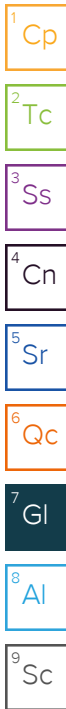
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. 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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.



# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

