

## Olsson Associates - CO

Sample Delivery Group: L895425  
Samples Received: 03/11/2017  
Project Number: 017-0583  
Description: HCWTF  
Site: HCWTF  
Report To: Robert Stockton  
760 Horizon Drive, Ste 102  
Grand Junction, CO 81506

Entire Report Reviewed By:



Shane Gambill

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<sup>1</sup> Cp: Cover Page	1
<sup>2</sup> Tc: Table of Contents	2
<sup>3</sup> Ss: Sample Summary	3
<sup>4</sup> Cn: Case Narrative	5
<sup>5</sup> Sr: Sample Results	6
MW3 L895425-01	6
MW2 L895425-02	8
MW1 L895425-03	10
CABIN L895425-04	12
HC L895425-05	14
BC L895425-06	16
<sup>6</sup> Qc: Quality Control Summary	18
Wet Chemistry by Method 2320 B-2011	18
Wet Chemistry by Method 9040C	19
Wet Chemistry by Method 9050A	20
Wet Chemistry by Method 9056A	21
Metals (ICP) by Method 6010B	23
Volatile Organic Compounds (GC) by Method 8015D/GRO	24
Volatile Organic Compounds (GC/MS) by Method 8260B	25
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	26
<sup>7</sup> Gl: Glossary of Terms	27
<sup>8</sup> Al: Accreditations & Locations	28
<sup>9</sup> Sc: Chain of Custody	29



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW3 L895425-01 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 11:05

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 09:01	03/14/17 09:01	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 12:28	03/11/17 12:28	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:17	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 09:45	03/16/17 09:45	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 07:40	03/14/17 07:40	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 16:49	TRF

<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

## MW2 L895425-02 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 12:05

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 08:34	03/14/17 08:34	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 12:02	03/11/17 12:02	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:20	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 10:06	03/16/17 10:06	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 08:01	03/14/17 08:01	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 17:06	TRF

## MW1 L895425-03 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 13:05

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 08:42	03/14/17 08:42	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 12:16	03/11/17 12:16	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:23	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 10:28	03/16/17 10:28	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 08:22	03/14/17 08:22	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 17:24	TRF

## CABIN L895425-04 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 14:50

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 07:38	03/14/17 07:38	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 13:50	03/11/17 13:50	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:25	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 10:49	03/16/17 10:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 08:43	03/14/17 08:43	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 17:41	TRF

# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



HC L895425-05 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 15:45

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 09:11	03/14/17 09:11	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 14:03	03/11/17 14:03	KCF
Wet Chemistry by Method 9056A	WG959978	5	03/11/17 20:31	03/11/17 20:31	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:28	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 11:10	03/16/17 11:10	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 09:04	03/14/17 09:04	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 17:59	TRF

<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

BC L895425-06 GW

Collected by  
Robert Stockton

Collected date/time  
03/09/17 16:15

Received date/time  
03/11/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG960473	1	03/14/17 09:20	03/14/17 09:20	AMC
Wet Chemistry by Method 9040C	WG960702	1	03/17/17 08:00	03/17/17 08:00	MA
Wet Chemistry by Method 9050A	WG960100	1	03/11/17 19:00	03/11/17 19:00	MAJ
Wet Chemistry by Method 9056A	WG959978	1	03/11/17 14:16	03/11/17 14:16	KCF
Metals (ICP) by Method 6010B	WG961073	1	03/15/17 10:10	03/15/17 12:31	LTB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG960176	1	03/16/17 11:31	03/16/17 11:31	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG960231	1	03/14/17 09:25	03/14/17 09:25	LRL
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG960444	1	03/12/17 04:44	03/13/17 18:16	TRF



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.

Shane Gambill  
Technical Service Representative

### Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
<a href="#">L895425-01</a>	<a href="#">MW3</a>	9040C, 9056A
<a href="#">L895425-02</a>	<a href="#">MW2</a>	9040C
<a href="#">L895425-03</a>	<a href="#">MW1</a>	9040C
<a href="#">L895425-04</a>	<a href="#">CABIN</a>	9040C
<a href="#">L895425-05</a>	<a href="#">HC</a>	9040C
<a href="#">L895425-06</a>	<a href="#">BC</a>	9040C

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	234		20.0	1	03/14/2017 09:01	<a href="#">WG960473</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.50		1	03/17/2017 08:00	<a href="#">WG960702</a>

## Sample Narrative:

9040C L895425-01 WG960702: 7.50 at 18.5c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	603		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	03/11/2017 12:28	<a href="#">WG959978</a>
Chloride	22.2		1.00	1	03/11/2017 12:28	<a href="#">WG959978</a>
Fluoride	0.273		0.100	1	03/11/2017 12:28	<a href="#">WG959978</a>
Nitrate as (N)	0.748		0.100	1	03/11/2017 12:28	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 12:28	<a href="#">WG959978</a>
Sulfate	47.6		5.00	1	03/11/2017 12:28	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	71.4		1.00	1	03/15/2017 12:17	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:17	<a href="#">WG961073</a>
Magnesium,Dissolved	13.8		1.00	1	03/15/2017 12:17	<a href="#">WG961073</a>
Manganese,Dissolved	ND		0.0100	1	03/15/2017 12:17	<a href="#">WG961073</a>
Potassium,Dissolved	2.28		1.00	1	03/15/2017 12:17	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:17	<a href="#">WG961073</a>
Sodium,Dissolved	43.8		1.00	1	03/15/2017 12:17	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 09:45	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-122		03/16/2017 09:45	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	03/14/2017 07:40	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 07:40	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 07:40	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 07:40	<a href="#">WG960231</a>
(S) Toluene-d8	102		80.0-120		03/14/2017 07:40	<a href="#">WG960231</a>
(S) Dibromofluoromethane	92.1		76.0-123		03/14/2017 07:40	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	104		80.0-120		03/14/2017 07:40	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	150	J1	80.0-120		03/14/2017 07:40	<a href="#">WG960231</a>



Collected date/time: 03/09/17 11:05

L895425

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 16:49	<a href="#">WG960444</a>
(S) o-Terphenyl	92.3		31.0-160		03/13/2017 16:49	<a href="#">WG960444</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	139		20.0	1	03/14/2017 08:34	<a href="#">WG960473</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.81		1	03/17/2017 08:00	<a href="#">WG960702</a>

## Sample Narrative:

9040C L895425-02 WG960702: 7.81 at 18.6c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	321		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	03/11/2017 12:02	<a href="#">WG959978</a>
Chloride	3.68		1.00	1	03/11/2017 12:02	<a href="#">WG959978</a>
Fluoride	0.357		0.100	1	03/11/2017 12:02	<a href="#">WG959978</a>
Nitrate as (N)	0.935		0.100	1	03/11/2017 12:02	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 12:02	<a href="#">WG959978</a>
Sulfate	15.2		5.00	1	03/11/2017 12:02	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	33.9		1.00	1	03/15/2017 12:20	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:20	<a href="#">WG961073</a>
Magnesium,Dissolved	8.88		1.00	1	03/15/2017 12:20	<a href="#">WG961073</a>
Manganese,Dissolved	ND		0.0100	1	03/15/2017 12:20	<a href="#">WG961073</a>
Potassium,Dissolved	2.12		1.00	1	03/15/2017 12:20	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:20	<a href="#">WG961073</a>
Sodium,Dissolved	22.0		1.00	1	03/15/2017 12:20	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 10:06	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	101		77.0-122		03/16/2017 10:06	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	03/14/2017 08:01	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 08:01	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 08:01	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 08:01	<a href="#">WG960231</a>
(S) Toluene-d8	101		80.0-120		03/14/2017 08:01	<a href="#">WG960231</a>
(S) Dibromofluoromethane	89.0		76.0-123		03/14/2017 08:01	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	100		80.0-120		03/14/2017 08:01	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	94.4		80.0-120		03/14/2017 08:01	<a href="#">WG960231</a>





Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 17:06	<a href="#">WG960444</a>
(S) o-Terphenyl	88.4		31.0-160		03/13/2017 17:06	<a href="#">WG960444</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	313		20.0	1	03/14/2017 08:42	<a href="#">WG960473</a>

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.48		1	03/17/2017 08:00	<a href="#">WG960702</a>

## Sample Narrative:

9040C L895425-03 WG960702: 7.48 at 18.4c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	685		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	03/11/2017 12:16	<a href="#">WG959978</a>
Chloride	12.6		1.00	1	03/11/2017 12:16	<a href="#">WG959978</a>
Fluoride	0.252		0.100	1	03/11/2017 12:16	<a href="#">WG959978</a>
Nitrate as (N)	2.15		0.100	1	03/11/2017 12:16	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 12:16	<a href="#">WG959978</a>
Sulfate	19.7		5.00	1	03/11/2017 12:16	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

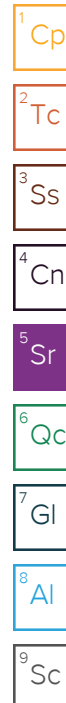
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	92.5		1.00	1	03/15/2017 12:23	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:23	<a href="#">WG961073</a>
Magnesium,Dissolved	15.3		1.00	1	03/15/2017 12:23	<a href="#">WG961073</a>
Manganese,Dissolved	ND		0.0100	1	03/15/2017 12:23	<a href="#">WG961073</a>
Potassium,Dissolved	1.01		1.00	1	03/15/2017 12:23	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:23	<a href="#">WG961073</a>
Sodium,Dissolved	38.7		1.00	1	03/15/2017 12:23	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 10:28	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-122		03/16/2017 10:28	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	03/14/2017 08:22	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 08:22	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 08:22	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 08:22	<a href="#">WG960231</a>
(S) Toluene-d8	101		80.0-120		03/14/2017 08:22	<a href="#">WG960231</a>
(S) Dibromofluoromethane	89.1		76.0-123		03/14/2017 08:22	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	101		80.0-120		03/14/2017 08:22	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	92.8		80.0-120		03/14/2017 08:22	<a href="#">WG960231</a>





Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 17:24	<a href="#">WG960444</a>
(S) o-Terphenyl	90.2		31.0-160		03/13/2017 17:24	<a href="#">WG960444</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	232		20.0	1	03/14/2017 07:38	<a href="#">WG960473</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.60		1	03/17/2017 08:00	<a href="#">WG960702</a>

## Sample Narrative:

9040C L895425-04 WG960702: 8.60 at 18.7c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	916		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	03/11/2017 13:50	<a href="#">WG959978</a>
Chloride	89.6		1.00	1	03/11/2017 13:50	<a href="#">WG959978</a>
Fluoride	6.74		0.100	1	03/11/2017 13:50	<a href="#">WG959978</a>
Nitrate as (N)	ND		0.100	1	03/11/2017 13:50	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 13:50	<a href="#">WG959978</a>
Sulfate	64.4		5.00	1	03/11/2017 13:50	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	2.25		1.00	1	03/15/2017 12:25	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:25	<a href="#">WG961073</a>
Magnesium,Dissolved	ND		1.00	1	03/15/2017 12:25	<a href="#">WG961073</a>
Manganese,Dissolved	ND		0.0100	1	03/15/2017 12:25	<a href="#">WG961073</a>
Potassium,Dissolved	ND		1.00	1	03/15/2017 12:25	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:25	<a href="#">WG961073</a>
Sodium,Dissolved	197		1.00	1	03/15/2017 12:25	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 10:49	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-122		03/16/2017 10:49	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	03/14/2017 08:43	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 08:43	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 08:43	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 08:43	<a href="#">WG960231</a>
(S) Toluene-d8	105		80.0-120		03/14/2017 08:43	<a href="#">WG960231</a>
(S) Dibromofluoromethane	90.9		76.0-123		03/14/2017 08:43	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	101		80.0-120		03/14/2017 08:43	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	96.5		80.0-120		03/14/2017 08:43	<a href="#">WG960231</a>

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 17:41	<a href="#">WG960444</a>
(S) o-Terphenyl	90.1		31.0-160		03/13/2017 17:41	<a href="#">WG960444</a>

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	270		20.0	1	03/14/2017 09:11	<a href="#">WG960473</a>

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.15		1	03/17/2017 08:00	<a href="#">WG960702</a>

### Sample Narrative:

9040C L895425-05 WG960702: 8.15 at 18.5c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	780		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	03/11/2017 14:03	<a href="#">WG959978</a>
Chloride	26.2		1.00	1	03/11/2017 14:03	<a href="#">WG959978</a>
Fluoride	0.266		0.100	1	03/11/2017 14:03	<a href="#">WG959978</a>
Nitrate as (N)	ND		0.100	1	03/11/2017 14:03	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 14:03	<a href="#">WG959978</a>
Sulfate	102		25.0	5	03/11/2017 20:31	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

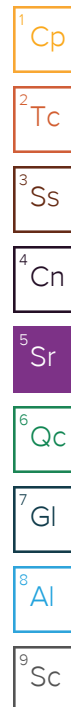
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	75.7		1.00	1	03/15/2017 12:28	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:28	<a href="#">WG961073</a>
Magnesium,Dissolved	17.6		1.00	1	03/15/2017 12:28	<a href="#">WG961073</a>
Manganese,Dissolved	ND		0.0100	1	03/15/2017 12:28	<a href="#">WG961073</a>
Potassium,Dissolved	2.02		1.00	1	03/15/2017 12:28	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:28	<a href="#">WG961073</a>
Sodium,Dissolved	76.4		1.00	1	03/15/2017 12:28	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 11:10	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-122		03/16/2017 11:10	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	03/14/2017 09:04	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 09:04	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 09:04	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 09:04	<a href="#">WG960231</a>
(S) Toluene-d8	104		80.0-120		03/14/2017 09:04	<a href="#">WG960231</a>
(S) Dibromofluoromethane	90.5		76.0-123		03/14/2017 09:04	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	101		80.0-120		03/14/2017 09:04	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	96.4		80.0-120		03/14/2017 09:04	<a href="#">WG960231</a>





Collected date/time: 03/09/17 15:45

L895425

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 17:59	<a href="#">WG960444</a>
(S) o-Terphenyl	89.3		31.0-160		03/13/2017 17:59	<a href="#">WG960444</a>

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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	214		20.0	1	03/14/2017 09:20	<a href="#">WG960473</a>

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.28		1	03/17/2017 08:00	<a href="#">WG960702</a>

### Sample Narrative:

9040C L895425-06 WG960702: 8.28 at 18.6c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	466		1	03/11/2017 19:00	<a href="#">WG960100</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	03/11/2017 14:16	<a href="#">WG959978</a>
Chloride	6.26		1.00	1	03/11/2017 14:16	<a href="#">WG959978</a>
Fluoride	0.152		0.100	1	03/11/2017 14:16	<a href="#">WG959978</a>
Nitrate as (N)	ND		0.100	1	03/11/2017 14:16	<a href="#">WG959978</a>
Nitrite as (N)	ND		0.100	1	03/11/2017 14:16	<a href="#">WG959978</a>
Sulfate	23.6		5.00	1	03/11/2017 14:16	<a href="#">WG959978</a>

## Metals (ICP) by Method 6010B

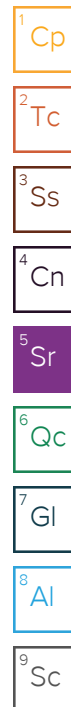
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	65.3		1.00	1	03/15/2017 12:31	<a href="#">WG961073</a>
Iron,Dissolved	ND		0.100	1	03/15/2017 12:31	<a href="#">WG961073</a>
Magnesium,Dissolved	13.0		1.00	1	03/15/2017 12:31	<a href="#">WG961073</a>
Manganese,Dissolved	0.0125		0.0100	1	03/15/2017 12:31	<a href="#">WG961073</a>
Potassium,Dissolved	1.43		1.00	1	03/15/2017 12:31	<a href="#">WG961073</a>
Selenium,Dissolved	ND		0.0100	1	03/15/2017 12:31	<a href="#">WG961073</a>
Sodium,Dissolved	21.1		1.00	1	03/15/2017 12:31	<a href="#">WG961073</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	03/16/2017 11:31	<a href="#">WG960176</a>
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-122		03/16/2017 11:31	<a href="#">WG960176</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	03/14/2017 09:25	<a href="#">WG960231</a>
Toluene	ND		0.00100	1	03/14/2017 09:25	<a href="#">WG960231</a>
Ethylbenzene	ND		0.00100	1	03/14/2017 09:25	<a href="#">WG960231</a>
Total Xylenes	ND		0.00300	1	03/14/2017 09:25	<a href="#">WG960231</a>
(S) Toluene-d8	106		80.0-120		03/14/2017 09:25	<a href="#">WG960231</a>
(S) Dibromofluoromethane	90.8		76.0-123		03/14/2017 09:25	<a href="#">WG960231</a>
(S) a,a,a-Trifluorotoluene	102		80.0-120		03/14/2017 09:25	<a href="#">WG960231</a>
(S) 4-Bromofluorobenzene	95.8		80.0-120		03/14/2017 09:25	<a href="#">WG960231</a>







Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/13/2017 18:16	<a href="#">WG960444</a>
(S) o-Terphenyl	91.6		31.0-160		03/13/2017 18:16	<a href="#">WG960444</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3203133-1 03/14/17 07:21

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Alkalinity	3.14	<div></div>	2.71	20.0

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L895425-04 Original Sample (OS) • Duplicate (DUP)

(OS) L895425-04 03/14/17 07:38 • (DUP) R3203133-3 03/14/17 07:48

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	232	237	1	2.00		20

L895450-01 Original Sample (OS) • Duplicate (DUP)

(OS) L895450-01 03/14/17 10:52 • (DUP) R3203133-6 03/14/17 10:59

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	ND	ND	1	17.0	<div></div>	20

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

(LCS) R3203133-4 03/14/17 08:51 • (LCSD) R3203133-5 03/14/17 10:22

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Alkalinity	100	99.7	106	100	106	85.0-115			6.00	20



L895125-02 Original Sample (OS) • Duplicate (DUP)

(OS) L895125-02 03/17/17 08:00 • (DUP) WG960702-3 03/17/17 08:00						
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.48	7.52	1	0.533		1

1Cp

2Tc

3Ss

4Cn

5Sr

L895504-04 Original Sample (OS) • Duplicate (DUP)

(OS) L895504-04 03/17/17 08:00 • (DUP) WG960702-4 03/17/17 08:00						
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.75	7.78	1	0.386		1

6Qc

7Gl

8Al

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

(LCS) WG960702-1 03/17/17 08:00 • (LCSD) WG960702-2 03/17/17 08:00									
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD
Analyte	su	su	su	%	%	%			%
pH	6.07	6.03	6.02	99.3	99.2	98.4-102			0.166

9Sc

Method Blank (MB)

(MB) WG960100-4 03/11/17 19:00				
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	umhos/cm		umhos/cm	umhos/cm
Specific Conductance	1.63			

L895116-10 Original Sample (OS) • Duplicate (DUP)

(OS) L895116-10 03/11/17 19:00 • (DUP) WG960100-1 03/11/17 19:00						
Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	umhos/cm	umhos/cm		%		%
Specific Conductance	696	696	1	0.000		20

L895450-01 Original Sample (OS) • Duplicate (DUP)

(OS) L895450-01 03/11/17 19:00 • (DUP) WG960100-5 03/11/17 19:00						
Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	umhos/cm	umhos/cm		%		%
Specific Conductance	284	284	1	0.176		20

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

(LCS) WG960100-2 03/11/17 19:00 • (LCSD) WG960100-3 03/11/17 19:00										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Analyte	umhos/cm	umhos/cm	umhos/cm	%	%	%			%	%
Specific Conductance	542	547	546	101	101	90.0-110			0.183	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3202776-1 03/11/17 10:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	U		0.079	1.00
Chloride	U		0.0519	1.00
Fluoride	U		0.0099	0.100
Nitrate	U		0.0227	0.100
Nitrite	U		0.0277	0.100
Sulfate	U		0.0774	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

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L895425-01 Original Sample (OS) • Duplicate (DUP)

(OS) L895425-01 03/11/17 12:28 • (DUP) R3202776-4 03/11/17 12:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	ND	0.118	1	0		15
Chloride	22.2	22.2	1	0		15
Fluoride	0.273	0.272	1	0		15
Nitrate	0.748	0.756	1	1		15
Nitrite	ND	0.000	1	0		15
Sulfate	47.6	47.7	1	0		15

L895339-02 Original Sample (OS) • Duplicate (DUP)

(OS) L895339-02 03/11/17 14:29 • (DUP) R3202776-6 03/11/17 14:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	6.60	5.99	1	10		15
Fluoride	ND	0.000	1	0		15
Nitrate	2.26	2.43	1	7		15
Nitrite	ND	0.000	1	0		15
Sulfate	52.9	53.0	1	0		15

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

(LCS) R3202776-2 03/11/17 10:27 • (LCSD) R3202776-3 03/11/17 10:40

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 %
Bromide	40.0	40.8	40.8	102	102	80-120			0	15
Chloride	40.0	40.1	40.1	100	100	80-120			0	15
Fluoride	8.00	8.08	8.09	101	101	80-120			0	15
Nitrate	8.00	8.20	8.20	103	102	80-120			0	15



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

(LCS) R3202776-2 03/11/17 10:27 • (LCSD) R3202776-3 03/11/17 10:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Nitrite	8.00	8.02	8.03	100	100	80-120			0	15
Sulfate	40.0	40.6	40.5	101	101	80-120			0	15

L895425-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L895425-03 03/11/17 12:16 • (MS) R3202776-5 03/11/17 12:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Bromide	50.0	ND	48.0	96	1	80-120	
Chloride	50.0	12.6	62.7	100	1	80-120	
Fluoride	5.00	0.252	5.14	98	1	80-120	
Nitrate	5.00	2.15	7.12	99	1	80-120	
Nitrite	5.00	ND	5.11	102	1	80-120	
Sulfate	50.0	19.7	69.0	99	1	80-120	

L895312-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895312-05 03/11/17 17:30 • (MS) R3202776-7 03/11/17 17:43 • (MSD) R3202776-8 03/11/17 17:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Bromide	50.0	ND	48.7	49.6	96	98	1	80-120			2	15
Chloride	50.0	28.9	78.5	78.7	99	100	1	80-120			0	15
Fluoride	5.00	5.95	10.4	10.8	90	97	1	80-120	E	E	4	15
Nitrate	5.00	ND	4.77	4.83	95	97	1	80-120			1	15
Nitrite	5.00	ND	5.13	5.16	103	103	1	80-120			1	15
Sulfate	50.0	ND	50.1	50.6	98	99	1	80-120			1	15

<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) R3203514-1 03/15/17 11:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium,Dissolved	U		0.0463	1.00
Iron,Dissolved	U		0.0141	0.100
Magnesium,Dissolved	U		0.0111	1.00
Manganese,Dissolved	U		0.0012	0.0100
Potassium,Dissolved	U		0.102	1.00
Selenium,Dissolved	U		0.0074	0.0100
Sodium,Dissolved	U		0.0985	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

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

(LCS) R3203514-2 03/15/17 11:39 • (LCSD) R3203514-3 03/15/17 11:42

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 %
Calcium,Dissolved	10.0	9.59	9.58	96	96	80-120			0	20
Iron,Dissolved	10.0	9.63	9.60	96	96	80-120			0	20
Magnesium,Dissolved	10.0	9.93	9.94	99	99	80-120			0	20
Manganese,Dissolved	1.00	0.996	0.989	100	99	80-120			1	20
Potassium,Dissolved	10.0	9.01	9.01	90	90	80-120			0	20
Selenium,Dissolved	1.00	1.00	1.00	100	100	80-120			0	20
Sodium,Dissolved	10.0	9.69	9.61	97	96	80-120			1	20

L895312-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895312-05 03/15/17 11:44 • (MS) R3203514-5 03/15/17 11:50 • (MSD) R3203514-6 03/15/17 11:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium,Dissolved	10.0	61.1	70.6	70.2	95	91	1	75-125			1	20
Iron,Dissolved	10.0	ND	9.68	9.73	96	97	1	75-125			1	20
Magnesium,Dissolved	10.0	31.6	41.0	40.8	94	92	1	75-125			1	20
Manganese,Dissolved	1.00	0.300	1.27	1.27	97	97	1	75-125			0	20
Potassium,Dissolved	10.0	5.13	14.4	14.4	93	93	1	75-125			0	20
Selenium,Dissolved	1.00	ND	1.08	1.08	108	108	1	75-125			0	20
Sodium,Dissolved	10.0	200	206	206	61	54	1	75-125	V	V	0	20

Method Blank (MB)

(MB) R3203738-3 03/15/17 21:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-122

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

(LCS) R3203738-1 03/15/17 20:44 • (LCSD) R3203738-2 03/15/17 21:05

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	6.33	6.79	115	124	71.0-136			7.04	20
(S) a,a,a-Trifluorotoluene(FID)				103	104	77.0-122				

L895193-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895193-01 03/16/17 03:51 • (MS) R3203738-4 03/16/17 02:47 • (MSD) R3203738-5 03/16/17 03:09

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
TPH (GC/FID) Low Fraction	5.50	U	6.81	6.67	124	121	1	18.0-160			2.12	20
(S) a,a,a-Trifluorotoluene(FID)					103	103		77.0-122				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc





Method Blank (MB)

(MB) R3203559-3 03/14/17 02:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	89.6			76.0-123
(S) a,a,a-Trifluorotoluene	99.7			80.0-120
(S) 4-Bromofluorobenzene	92.4			80.0-120

<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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3203559-1 03/14/17 01:22 • (LCSD) R3203559-2 03/14/17 01:44

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 %
Benzene	0.0250	0.0257	0.0257	103	103	69.0-123			0.0600	20
Ethylbenzene	0.0250	0.0241	0.0238	96.4	95.1	77.0-120			1.38	20
Toluene	0.0250	0.0254	0.0256	102	102	77.0-120			0.680	20
Xylenes, Total	0.0750	0.0710	0.0703	94.7	93.7	77.0-120			0.990	20
(S) Toluene-d8				104	103	80.0-120				
(S) Dibromofluoromethane				88.2	87.8	76.0-123				
(S) a,a,a-Trifluorotoluene				101	99.8	80.0-120				
(S) 4-Bromofluorobenzene				94.1	94.1	80.0-120				

L895366-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895366-02 03/14/17 03:29 • (MS) R3203559-4 03/14/17 09:46 • (MSD) R3203559-5 03/14/17 10:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0816	0.0936	0.0910	48.1	37.6	1	34.0-147			2.84	20
Ethylbenzene	0.0250	0.00461	0.0180	0.0202	53.7	62.5	1	42.0-147			11.6	20
Toluene	0.0250	ND	0.0134	0.0149	53.7	59.4	1	42.0-141			10.0	20
Xylenes, Total	0.0750	0.0478	0.0861	0.0968	51.0	65.3	1	41.0-148			11.7	20
(S) Toluene-d8					103	101		80.0-120				
(S) Dibromofluoromethane					88.6	88.6		76.0-123				
(S) a,a,a-Trifluorotoluene					101	100		80.0-120				
(S) 4-Bromofluorobenzene					95.8	95.8		80.0-120				

Method Blank (MB)

(MB) R3203205-1 03/13/17 15:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0387	⬇	0.0247	0.100
(S) o-Terphenyl	94.1			31.0-160

<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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3203205-2 03/13/17 15:21 • (LCSD) R3203205-3 03/13/17 15:39

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 %
TPH (GC/FID) High Fraction	1.50	1.87	1.82	125	122	50.0-150			2.78	20
(S) o-Terphenyl				102	96.4	31.0-160				



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

## Qualifier      Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<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



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

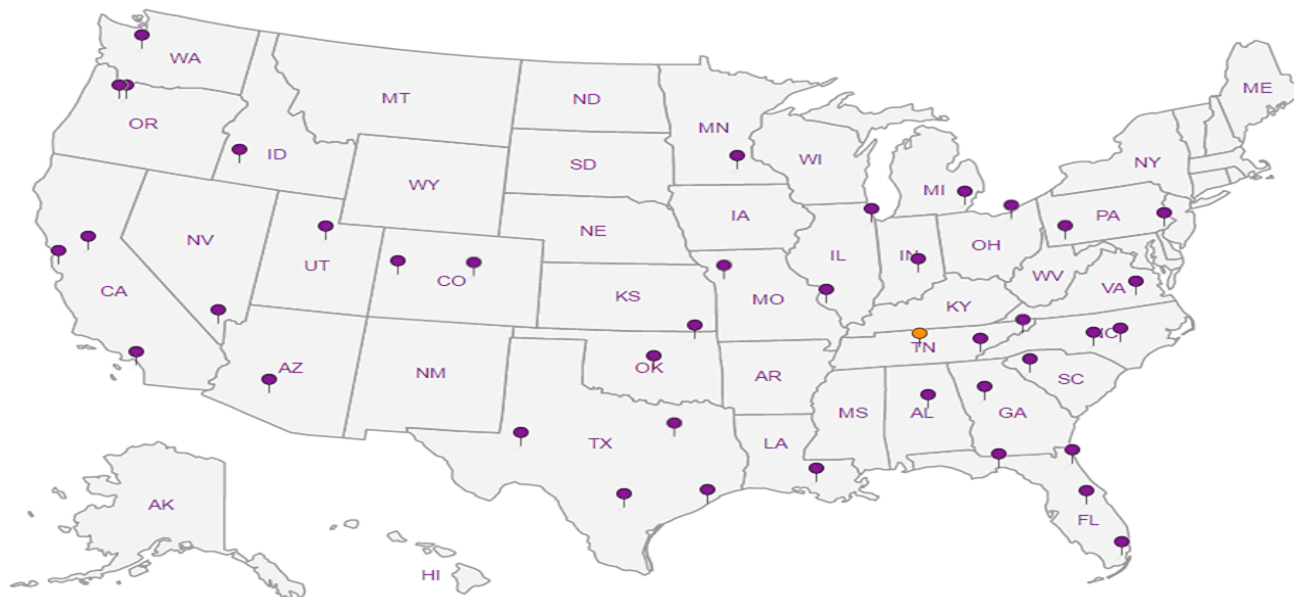
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
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>n/a</sup> Accreditation not applicable


## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



[illegible]

## ESC LAB SCIENCES Cooler Receipt Form

Client:	06550110	SDG#	895405	
Cooler Received/Opened On: 3/	/17	Temperature:	29	
Received By: Rickey Mosley				
Signature: 				
<b>Receipt Check List</b>		NP	Yes	No
COC Seal Present / Intact?		✓		
COC Signed / Accurate?			✓	
Bottles arrive intact?			✓	
Correct bottles used?			✓	
Sufficient volume sent?			✓	
If Applicable				
VOA Zero headspace?			✓	
Preservation Correct / Checked?				

**Troy Dunlap**

**ESC Lab Sciences**  
**Non-Conformance Form**

Login #895425	OLSSONCO	Date: 3/11	Evaluated by: Matt S
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**Non-Conformance (check applicable items)**

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	<b>If no Chain of Custody:</b>
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date / Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

**Login Comments: Nitrate and Nitrite for MW3 OOH**

Client informed by:	Call	Email	Voice Mail	Date: 03/13/17	Time:
TSR Initials: CSG      Client Contact: Robert Stockton					

**Login Instructions:**

Client notified – Please proceed and flag accordingly

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## Olsson Associates - CO

Sample Delivery Group: L914488  
Samples Received: 06/08/2017  
Project Number: 017-0583  
Description: HCWTF  
Site: HCWTF  
Report To: Robert Stockton  
760 Horizon Drive, Ste 102  
Grand Junction, CO 81506

Entire Report Reviewed By:



Shane Gambill

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
MW-1 L914488-01	6
MW-2 L914488-02	8
MW3 L914488-03	10
CABIN L914488-04	12
HC L914488-05	14
BC L914488-06	16
Qc: Quality Control Summary	18
Wet Chemistry by Method 2320 B-2011	18
Wet Chemistry by Method 9040C	19
Wet Chemistry by Method 9050A	21
Wet Chemistry by Method 9056A	22
Metals (ICP) by Method 6010B	24
Volatile Organic Compounds (GC) by Method 8015D/GRO	25
Volatile Organic Compounds (GC/MS) by Method 8260B	26
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	28
Gl: Glossary of Terms	29
Al: Accreditations & Locations	30
Sc: Chain of Custody	31



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW-1 L914488-01 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 10:20

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 12:19	06/12/17 12:19	MCG
Wet Chemistry by Method 9040C	WG987049	1	06/09/17 13:03	06/09/17 13:03	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 20:06	06/08/17 20:06	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 14:45	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 09:22	06/11/17 09:22	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987923	1	06/10/17 14:20	06/10/17 14:20	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 13:12	LM

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

## MW-2 L914488-02 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 10:57

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 12:26	06/12/17 12:26	MCG
Wet Chemistry by Method 9040C	WG987250	1	06/10/17 08:46	06/10/17 08:46	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 20:19	06/08/17 20:19	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 14:48	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 09:43	06/11/17 09:43	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987923	1	06/10/17 14:33	06/10/17 14:33	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 13:29	LM

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## MW3 L914488-03 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 11:44

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 12:32	06/12/17 12:32	MCG
Wet Chemistry by Method 9040C	WG987250	1	06/10/17 08:46	06/10/17 08:46	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 20:31	06/08/17 20:31	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 14:50	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 10:04	06/11/17 10:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987923	1	06/10/17 14:46	06/10/17 14:46	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 13:46	LM

## CABIN L914488-04 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 12:20

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 13:38	06/12/17 13:38	MCG
Wet Chemistry by Method 9040C	WG987250	1	06/10/17 08:46	06/10/17 08:46	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 21:10	06/08/17 21:10	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 14:34	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 10:25	06/11/17 10:25	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987944	1	06/10/17 12:51	06/10/17 12:51	JHH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 14:03	LM

# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## HC L914488-05 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 12:42

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 13:46	06/12/17 13:46	MCG
Wet Chemistry by Method 9040C	WG987250	1	06/10/17 08:46	06/10/17 08:46	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 21:49	06/08/17 21:49	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 14:59	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 10:46	06/11/17 10:46	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987944	1	06/10/17 13:06	06/10/17 13:06	JHH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 14:19	LM

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

## BC L914488-06 GW

Collected by  
Robert Stockton

Collected date/time  
06/07/17 13:10

Received date/time  
06/08/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG987667	1	06/12/17 14:31	06/12/17 14:31	MCG
Wet Chemistry by Method 9040C	WG987250	1	06/10/17 08:46	06/10/17 08:46	GB
Wet Chemistry by Method 9050A	WG987413	1	06/09/17 01:58	06/09/17 01:58	MZ
Wet Chemistry by Method 9056A	WG987158	1	06/08/17 22:02	06/08/17 22:02	SAM
Metals (ICP) by Method 6010B	WG988308	1	06/13/17 09:49	06/13/17 15:05	NJB
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG987515	1	06/11/17 11:07	06/11/17 11:07	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG987944	1	06/10/17 13:21	06/10/17 13:21	JHH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG988086	1	06/13/17 22:36	06/14/17 14:36	LM

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Shane Gambill  
Technical Service Representative

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	260		20.0	1	06/12/2017 12:19	<a href="#">WG987667</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.37	<a href="#">T8</a>	1	06/09/2017 13:03	<a href="#">WG987049</a>

## Sample Narrative:

9040C L914488-01 WG987049: 7.37 at 20.4c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	634		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	06/08/2017 20:06	<a href="#">WG987158</a>
Chloride	22.6		1.00	1	06/08/2017 20:06	<a href="#">WG987158</a>
Fluoride	0.237		0.100	1	06/08/2017 20:06	<a href="#">WG987158</a>
Nitrate as (N)	0.557	<a href="#">J5</a>	0.100	1	06/08/2017 20:06	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 20:06	<a href="#">WG987158</a>
Sulfate	46.3	<a href="#">J6</a>	5.00	1	06/08/2017 20:06	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	76.6		1.00	1	06/13/2017 14:45	<a href="#">WG988308</a>
Iron,Dissolved	ND		0.100	1	06/13/2017 14:45	<a href="#">WG988308</a>
Magnesium,Dissolved	14.7		1.00	1	06/13/2017 14:45	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 14:45	<a href="#">WG988308</a>
Potassium,Dissolved	2.65		1.00	1	06/13/2017 14:45	<a href="#">WG988308</a>
Selenium,Dissolved	0.0110		0.0100	1	06/13/2017 14:45	<a href="#">WG988308</a>
Sodium,Dissolved	47.2		1.00	1	06/13/2017 14:45	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 09:22	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.4		77.0-122		06/11/2017 09:22	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/10/2017 14:20	<a href="#">WG987923</a>
Toluene	ND		0.00100	1	06/10/2017 14:20	<a href="#">WG987923</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 14:20	<a href="#">WG987923</a>
Total Xylenes	ND		0.00300	1	06/10/2017 14:20	<a href="#">WG987923</a>
(S) Toluene-d8	102		80.0-120		06/10/2017 14:20	<a href="#">WG987923</a>
(S) Dibromofluoromethane	102		76.0-123		06/10/2017 14:20	<a href="#">WG987923</a>
(S) a,a,a-Trifluorotoluene	100		80.0-120		06/10/2017 14:20	<a href="#">WG987923</a>
(S) 4-Bromofluorobenzene	98.4		80.0-120		06/10/2017 14:20	<a href="#">WG987923</a>



Collected date/time: 06/07/17 10:20

L914488

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 13:12	<a href="#">WG988086</a>
(S) o-Terphenyl	76.3		31.0-160		06/14/2017 13:12	<a href="#">WG988086</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	143		20.0	1	06/12/2017 12:26	<a href="#">WG987667</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.80	<a href="#">T8</a>	1	06/10/2017 08:46	<a href="#">WG987250</a>

## Sample Narrative:

9040C L914488-02 WG987250: 7.80 at 20.2c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	318		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	06/08/2017 20:19	<a href="#">WG987158</a>
Chloride	3.73		1.00	1	06/08/2017 20:19	<a href="#">WG987158</a>
Fluoride	0.302		0.100	1	06/08/2017 20:19	<a href="#">WG987158</a>
Nitrate as (N)	0.953		0.100	1	06/08/2017 20:19	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 20:19	<a href="#">WG987158</a>
Sulfate	19.1		5.00	1	06/08/2017 20:19	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	32.0		1.00	1	06/13/2017 14:48	<a href="#">WG988308</a>
Iron,Dissolved	ND		0.100	1	06/13/2017 14:48	<a href="#">WG988308</a>
Magnesium,Dissolved	8.36		1.00	1	06/13/2017 14:48	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 14:48	<a href="#">WG988308</a>
Potassium,Dissolved	2.60		1.00	1	06/13/2017 14:48	<a href="#">WG988308</a>
Selenium,Dissolved	ND		0.0100	1	06/13/2017 14:48	<a href="#">WG988308</a>
Sodium,Dissolved	23.8		1.00	1	06/13/2017 14:48	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 09:43	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.8		77.0-122		06/11/2017 09:43	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/10/2017 14:33	<a href="#">WG987923</a>
Toluene	ND		0.00100	1	06/10/2017 14:33	<a href="#">WG987923</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 14:33	<a href="#">WG987923</a>
Total Xylenes	ND		0.00300	1	06/10/2017 14:33	<a href="#">WG987923</a>
(S) Toluene-d8	102		80.0-120		06/10/2017 14:33	<a href="#">WG987923</a>
(S) Dibromofluoromethane	104		76.0-123		06/10/2017 14:33	<a href="#">WG987923</a>
(S) a,a,a-Trifluorotoluene	100		80.0-120		06/10/2017 14:33	<a href="#">WG987923</a>
(S) 4-Bromofluorobenzene	99.5		80.0-120		06/10/2017 14:33	<a href="#">WG987923</a>



Collected date/time: 06/07/17 10:57

L914488

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 13:29	<a href="#">WG988086</a>
(S) o-Terphenyl	78.9		31.0-160		06/14/2017 13:29	<a href="#">WG988086</a>

<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





## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	348		20.0	1	06/12/2017 12:32	<a href="#">WG987667</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.33	<a href="#">T8</a>	1	06/10/2017 08:46	<a href="#">WG987250</a>

## Sample Narrative:

9040C L914488-03 WG987250: 7.33 at 20.1c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	729		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	06/08/2017 20:31	<a href="#">WG987158</a>
Chloride	13.9		1.00	1	06/08/2017 20:31	<a href="#">WG987158</a>
Fluoride	0.234		0.100	1	06/08/2017 20:31	<a href="#">WG987158</a>
Nitrate as (N)	2.50		0.100	1	06/08/2017 20:31	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 20:31	<a href="#">WG987158</a>
Sulfate	20.0		5.00	1	06/08/2017 20:31	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	109		1.00	1	06/13/2017 14:50	<a href="#">WG988308</a>
Iron,Dissolved	ND		0.100	1	06/13/2017 14:50	<a href="#">WG988308</a>
Magnesium,Dissolved	18.4		1.00	1	06/13/2017 14:50	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 14:50	<a href="#">WG988308</a>
Potassium,Dissolved	ND		1.00	1	06/13/2017 14:50	<a href="#">WG988308</a>
Selenium,Dissolved	ND		0.0100	1	06/13/2017 14:50	<a href="#">WG988308</a>
Sodium,Dissolved	36.0		1.00	1	06/13/2017 14:50	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 10:04	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.8		77.0-122		06/11/2017 10:04	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/10/2017 14:46	<a href="#">WG987923</a>
Toluene	ND		0.00100	1	06/10/2017 14:46	<a href="#">WG987923</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 14:46	<a href="#">WG987923</a>
Total Xylenes	ND		0.00300	1	06/10/2017 14:46	<a href="#">WG987923</a>
(S) Toluene-d8	102		80.0-120		06/10/2017 14:46	<a href="#">WG987923</a>
(S) Dibromofluoromethane	102		76.0-123		06/10/2017 14:46	<a href="#">WG987923</a>
(S) a,a,a-Trifluorotoluene	101		80.0-120		06/10/2017 14:46	<a href="#">WG987923</a>
(S) 4-Bromofluorobenzene	98.8		80.0-120		06/10/2017 14:46	<a href="#">WG987923</a>



Collected date/time: 06/07/17 11:44

L914488

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 13:46	<a href="#">WG988086</a>
(S) o-Terphenyl	81.6		31.0-160		06/14/2017 13:46	<a href="#">WG988086</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	259		20.0	1	06/12/2017 13:38	<a href="#">WG987667</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.64	<a href="#">T8</a>	1	06/10/2017 08:46	<a href="#">WG987250</a>

## Sample Narrative:

9040C L914488-04 WG987250: 8.64 at 20.1c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	8520		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	06/08/2017 21:10	<a href="#">WG987158</a>
Chloride	63.9		1.00	1	06/08/2017 21:10	<a href="#">WG987158</a>
Fluoride	6.90		0.100	1	06/08/2017 21:10	<a href="#">WG987158</a>
Nitrate as (N)	ND		0.100	1	06/08/2017 21:10	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 21:10	<a href="#">WG987158</a>
Sulfate	63.5		5.00	1	06/08/2017 21:10	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	2.10		1.00	1	06/13/2017 14:34	<a href="#">WG988308</a>
Iron,Dissolved	ND		0.100	1	06/13/2017 14:34	<a href="#">WG988308</a>
Magnesium,Dissolved	ND		1.00	1	06/13/2017 14:34	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 14:34	<a href="#">WG988308</a>
Potassium,Dissolved	ND		1.00	1	06/13/2017 14:34	<a href="#">WG988308</a>
Selenium,Dissolved	ND		0.0100	1	06/13/2017 14:34	<a href="#">WG988308</a>
Sodium,Dissolved	196	<a href="#">Q1 V</a>	1.00	1	06/13/2017 14:34	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 10:25	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.4		77.0-122		06/11/2017 10:25	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/10/2017 12:51	<a href="#">WG987944</a>
Toluene	ND		0.00100	1	06/10/2017 12:51	<a href="#">WG987944</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 12:51	<a href="#">WG987944</a>
Total Xylenes	ND		0.00300	1	06/10/2017 12:51	<a href="#">WG987944</a>
(S) Toluene-d8	91.6		80.0-120		06/10/2017 12:51	<a href="#">WG987944</a>
(S) Dibromofluoromethane	88.6		76.0-123		06/10/2017 12:51	<a href="#">WG987944</a>
(S) a,a,a-Trifluorotoluene	93.1		80.0-120		06/10/2017 12:51	<a href="#">WG987944</a>
(S) 4-Bromofluorobenzene	90.2		80.0-120		06/10/2017 12:51	<a href="#">WG987944</a>



Collected date/time: 06/07/17 12:20

L914488

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 14:03	<a href="#">WG988086</a>
(S) o-Terphenyl	78.8		31.0-160		06/14/2017 14:03	<a href="#">WG988086</a>

<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

## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	268		20.0	1	06/12/2017 13:46	<a href="#">WG987667</a>

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.33	<a href="#">T8</a>	1	06/10/2017 08:46	<a href="#">WG987250</a>

### Sample Narrative:

9040C L914488-05 WG987250: 8.33 at 20.2c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	41.0		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	06/08/2017 21:49	<a href="#">WG987158</a>
Chloride	14.5		1.00	1	06/08/2017 21:49	<a href="#">WG987158</a>
Fluoride	0.236		0.100	1	06/08/2017 21:49	<a href="#">WG987158</a>
Nitrate as (N)	ND		0.100	1	06/08/2017 21:49	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 21:49	<a href="#">WG987158</a>
Sulfate	61.3		5.00	1	06/08/2017 21:49	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

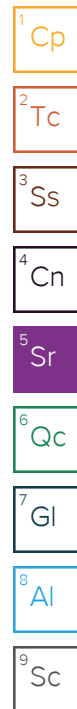
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	57.6		1.00	1	06/13/2017 14:59	<a href="#">WG988308</a>
Iron,Dissolved	ND		0.100	1	06/13/2017 14:59	<a href="#">WG988308</a>
Magnesium,Dissolved	18.5		1.00	1	06/13/2017 14:59	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 14:59	<a href="#">WG988308</a>
Potassium,Dissolved	2.27		1.00	1	06/13/2017 14:59	<a href="#">WG988308</a>
Selenium,Dissolved	ND		0.0100	1	06/13/2017 14:59	<a href="#">WG988308</a>
Sodium,Dissolved	61.5		1.00	1	06/13/2017 14:59	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 10:46	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.5		77.0-122		06/11/2017 10:46	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/10/2017 13:06	<a href="#">WG987944</a>
Toluene	ND		0.00100	1	06/10/2017 13:06	<a href="#">WG987944</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 13:06	<a href="#">WG987944</a>
Total Xylenes	ND		0.00300	1	06/10/2017 13:06	<a href="#">WG987944</a>
(S) Toluene-d8	91.5		80.0-120		06/10/2017 13:06	<a href="#">WG987944</a>
(S) Dibromofluoromethane	88.9		76.0-123		06/10/2017 13:06	<a href="#">WG987944</a>
(S) a,a,a-Trifluorotoluene	94.0		80.0-120		06/10/2017 13:06	<a href="#">WG987944</a>
(S) 4-Bromofluorobenzene	90.9		80.0-120		06/10/2017 13:06	<a href="#">WG987944</a>





Collected date/time: 06/07/17 12:42

L914488

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 14:19	<a href="#">WG988086</a>
(S) o-Terphenyl	79.4		31.0-160		06/14/2017 14:19	<a href="#">WG988086</a>

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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	90.0		20.0	1	06/12/2017 14:31	<a href="#">WG987667</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.22	<a href="#">T8</a>	1	06/10/2017 08:46	<a href="#">WG987250</a>

## Sample Narrative:

9040C L914488-06 WG987250: 8.22 at 20.2c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	162		1	06/09/2017 01:58	<a href="#">WG987413</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	06/08/2017 22:02	<a href="#">WG987158</a>
Chloride	ND		1.00	1	06/08/2017 22:02	<a href="#">WG987158</a>
Fluoride	ND		0.100	1	06/08/2017 22:02	<a href="#">WG987158</a>
Nitrate as (N)	ND		0.100	1	06/08/2017 22:02	<a href="#">WG987158</a>
Nitrite as (N)	ND		0.100	1	06/08/2017 22:02	<a href="#">WG987158</a>
Sulfate	ND		5.00	1	06/08/2017 22:02	<a href="#">WG987158</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	23.5		1.00	1	06/13/2017 15:05	<a href="#">WG988308</a>
Iron,Dissolved	0.232		0.100	1	06/13/2017 15:05	<a href="#">WG988308</a>
Magnesium,Dissolved	4.82		1.00	1	06/13/2017 15:05	<a href="#">WG988308</a>
Manganese,Dissolved	ND		0.0100	1	06/13/2017 15:05	<a href="#">WG988308</a>
Potassium,Dissolved	ND		1.00	1	06/13/2017 15:05	<a href="#">WG988308</a>
Selenium,Dissolved	ND		0.0100	1	06/13/2017 15:05	<a href="#">WG988308</a>
Sodium,Dissolved	4.98		1.00	1	06/13/2017 15:05	<a href="#">WG988308</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	06/11/2017 11:07	<a href="#">WG987515</a>
(S) a,a,a-Trifluorotoluene(FID)	99.5		77.0-122		06/11/2017 11:07	<a href="#">WG987515</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/10/2017 13:21	<a href="#">WG987944</a>
Toluene	ND		0.00100	1	06/10/2017 13:21	<a href="#">WG987944</a>
Ethylbenzene	ND		0.00100	1	06/10/2017 13:21	<a href="#">WG987944</a>
Total Xylenes	ND		0.00300	1	06/10/2017 13:21	<a href="#">WG987944</a>
(S) Toluene-d8	91.6		80.0-120		06/10/2017 13:21	<a href="#">WG987944</a>
(S) Dibromofluoromethane	89.8		76.0-123		06/10/2017 13:21	<a href="#">WG987944</a>
(S) a,a,a-Trifluorotoluene	92.1		80.0-120		06/10/2017 13:21	<a href="#">WG987944</a>
(S) 4-Bromofluorobenzene	90.3		80.0-120		06/10/2017 13:21	<a href="#">WG987944</a>



Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/14/2017 14:36	<a href="#">WG988086</a>
(S) o-Terphenyl	77.2		31.0-160		06/14/2017 14:36	<a href="#">WG988086</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3225066-2 06/12/17 09:57

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Alkalinity	2.76	⬇	2.71	20.0

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L914374-01 Original Sample (OS) • Duplicate (DUP)

(OS) L914374-01 06/12/17 10:05 • (DUP) R3225066-3 06/12/17 10:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	21.7	21.8	1	1.00		20

L914488-06 Original Sample (OS) • Duplicate (DUP)

(OS) L914488-06 06/12/17 14:31 • (DUP) R3225066-6 06/12/17 14:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	90.0	81.0	1	10.0		20

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

(LCS) R3225066-4 06/12/17 11:05 • (LCSD) R3225066-5 06/12/17 12:38

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Alkalinity	100	112	108	112	108	85.0-115			4.00	20



L914303-03 Original Sample (OS) • Duplicate (DUP)

(OS) L914303-03 06/09/17 13:03 • (DUP) WG987049-3 06/09/17 13:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.29	7.29	1	0.000	T8	1

L914488-01 Original Sample (OS) • Duplicate (DUP)

(OS) L914488-01 06/09/17 13:03 • (DUP) WG987049-4 06/09/17 13:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.37	7.38	1	0.136	T8	1

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

(LCS) WG987049-1 06/09/17 13:03 • (LCSD) WG987049-2 06/09/17 13:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.38	6.39	6.39	100	100	98.7-101			0.000	1

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



L914488-02 Original Sample (OS) • Duplicate (DUP)

(OS) L914488-02 06/10/17 08:46 • (DUP) WG987250-3 06/10/17 08:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.80	7.80	1	0.000	T8	1

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L914763-06 Original Sample (OS) • Duplicate (DUP)

(OS) L914763-06 06/10/17 08:46 • (DUP) WG987250-4 06/10/17 08:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.76	7.78	1	0.257	T8	1

7 Gl

8 Al

9 Sc

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

(LCS) WG987250-1 06/10/17 08:46 • (LCSD) WG987250-2 06/10/17 08:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.38	6.38	6.37	100	99.8	98.7-101			0.157	1



Method Blank (MB)

(MB) WG987413-1 06/09/17 01:58

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	umhos/cm		umhos/cm	umhos/cm
Specific Conductance	1.09			

L914488-01 Original Sample (OS) • Duplicate (DUP)

(OS) L914488-01 06/09/17 01:58 • (DUP) WG987413-4 06/09/17 01:58

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	634	634	1	0.000		20

L914607-09 Original Sample (OS) • Duplicate (DUP)

(OS) L914607-09 06/09/17 01:58 • (DUP) WG987413-5 06/09/17 01:58

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	22500	22500	1	0.133		20

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

(LCS) WG987413-2 06/09/17 01:58 • (LCSD) WG987413-3 06/09/17 01:58

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	umhos/cm	umhos/cm	umhos/cm	%	%	%			%	%
Specific Conductance	1060	1060	1060	100	100	90.0-110			0.000	20
Specific Conductance	1060	1060	1060	100	98.8	90.0-110			0.000	20

Laboratory Control Sample (LCS)

(LCS) WG987413-2 06/09/17 01:58

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	umhos/cm	umhos/cm	%	%	
Specific Conductance	1070	1060	98.8	90.0-110	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3224397-1 06/08/17 18:22

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Bromide	U		0.079	1.00
Chloride	U		0.0519	1.00
Fluoride	U		0.0099	0.100
Nitrate	U		0.0227	0.100
Nitrite	U		0.0277	0.100
Sulfate	U		0.0774	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

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L914475-15 Original Sample (OS) • Duplicate (DUP)

(OS) L914475-15 06/08/17 19:27 • (DUP) R3224397-4 06/08/17 19:40

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Bromide	ND	0.000	1	0		15
Chloride	70.6	70.7	1	0		15
Fluoride	0.511	0.510	1	0		15
Nitrate	ND	0.000	1	0		15
Nitrite	ND	0.000	1	0		15
Sulfate	ND	3.10	1	0		15

L914475-16 Original Sample (OS) • Duplicate (DUP)

(OS) L914475-16 06/08/17 19:53 • (DUP) R3224397-8 06/09/17 11:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Bromide	ND	0.000	1	0		15
Chloride	66.0	70.0	1	6		15
Fluoride	0.432	0.542	1	23	J3	15
Nitrate	ND	0.000	1	0		15
Nitrite	ND	0.000	1	0		15
Sulfate	6.51	7.38	1	13		15

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

(LCS) R3224397-2 06/08/17 18:35 • (LCSD) R3224397-3 06/08/17 18:48

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Bromide	40.0	39.9	40.1	100	100	80-120			0	15
Chloride	40.0	39.9	39.9	100	100	80-120			0	15
Fluoride	8.00	8.20	8.18	102	102	80-120			0	15

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

(LCS) R3224397-2 06/08/17 18:35 • (LCSD) R3224397-3 06/08/17 18:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	8.00	8.31	8.36	104	104	80-120			1	15
Nitrite	8.00	8.20	8.20	102	103	80-120			0	15
Sulfate	40.0	39.6	39.8	99	99	80-120			0	15

L914488-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L914488-04 06/08/17 21:10 • (MS) R3224397-5 06/08/17 21:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Bromide	50.0	ND	46.9	94	1	80-120	
Chloride	50.0	63.9	112	96	1	80-120	E
Fluoride	5.00	6.90	11.7	96	1	80-120	E
Nitrate	5.00	ND	4.91	98	1	80-120	
Nitrite	5.00	ND	5.05	101	1	80-120	
Sulfate	50.0	63.5	110	92	1	80-120	E

L914488-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L914488-01 06/08/17 20:06 • (MS) R3224397-6 06/09/17 10:49 • (MSD) R3224397-7 06/09/17 11:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromide	50.0	ND	48.3	49.4	97	99	1	80-120			2	15
Chloride	50.0	22.6	65.2	65.6	85	86	1	80-120			1	15
Fluoride	5.00	0.237	5.31	5.37	101	103	1	80-120			1	15
Nitrate	5.00	0.557	7.81	7.94	145	148	1	80-120	J5	J5	2	15
Nitrite	5.00	ND	5.13	5.21	103	104	1	80-120			1	15
Sulfate	50.0	46.3	70.5	71.1	48	50	1	80-120	J6	J6	1	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3225278-1 06/13/17 14:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium,Dissolved	U		0.0463	1.00
Iron,Dissolved	U		0.0141	0.100
Magnesium,Dissolved	U		0.0111	1.00
Manganese,Dissolved	U		0.0012	0.0100
Potassium,Dissolved	U		0.102	1.00
Selenium,Dissolved	U		0.0074	0.0100
Sodium,Dissolved	0.104	J	0.0985	1.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

(LCS) R3225278-2 06/13/17 14:29 • (LCSD) R3225278-3 06/13/17 14:31

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 %
Calcium,Dissolved	10.0	10.0	10.1	100	101	80-120			1	20
Iron,Dissolved	10.0	10.1	10.3	101	103	80-120			1	20
Magnesium,Dissolved	10.0	10.3	10.5	103	105	80-120			2	20
Manganese,Dissolved	1.00	0.987	0.999	99	100	80-120			1	20
Potassium,Dissolved	10.0	9.78	9.94	98	99	80-120			2	20
Selenium,Dissolved	1.00	1.02	1.03	102	103	80-120			2	20
Sodium,Dissolved	10.0	10.0	10.2	100	102	80-120			1	20

L914488-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L914488-04 06/13/17 14:34 • (MS) R3225278-5 06/13/17 14:40 • (MSD) R3225278-6 06/13/17 14:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium,Dissolved	10.0	2.10	11.9	12.1	98	100	1	75-125			1	20
Iron,Dissolved	10.0	ND	10.1	10.1	101	101	1	75-125			1	20
Magnesium,Dissolved	10.0	ND	10.3	10.3	103	103	1	75-125			0	20
Manganese,Dissolved	1.00	ND	0.973	0.976	97	97	1	75-125			0	20
Potassium,Dissolved	10.0	ND	10.3	10.5	97	98	1	75-125			2	20
Selenium,Dissolved	1.00	ND	1.06	1.06	106	106	1	75-125			1	20
Sodium,Dissolved	10.0	196	202	202	55	58	1	75-125	V	V	0	20



Method Blank (MB)

(MB) R3224931-3 06/11/17 06:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.4			77.0-122

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

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

(LCS) R3224931-1 06/11/17 05:53 • (LCSD) R3224931-2 06/11/17 06:14

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 %
TPH (GC/FID) Low Fraction	5.50	6.21	5.95	113	108	71.0-136			4.22	20
(S) a,a,a-Trifluorotoluene(FID)				102	101	77.0-122				

7Gl

8Al

L914367-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L914367-01 06/11/17 07:16 • (MS) R3224931-4 06/11/17 14:15 • (MSD) R3224931-5 06/11/17 14:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	6.11	6.22	111	113	1	18.0-160			1.88	20
(S) a,a,a-Trifluorotoluene(FID)					101	102		77.0-122				

9Sc



Method Blank (MB)

(MB) R3224665-3 06/10/17 09:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	102			76.0-123
(S) a,a,a-Trifluorotoluene	101			80.0-120
(S) 4-Bromofluorobenzene	99.2			80.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

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

(LCS) R3224665-1 06/10/17 08:14 • (LCSD) R3224665-2 06/10/17 08:26

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 %
Benzene	0.0250	0.0217	0.0207	86.7	82.8	69.0-123			4.67	20
Ethylbenzene	0.0250	0.0223	0.0210	89.1	83.8	77.0-120			6.16	20
Toluene	0.0250	0.0216	0.0208	86.4	83.1	77.0-120			3.92	20
Xylenes, Total	0.0750	0.0662	0.0621	88.3	82.8	77.0-120			6.39	20
(S) Toluene-d8				101	102	80.0-120				
(S) Dibromofluoromethane				105	105	76.0-123				
(S) a,a,a-Trifluorotoluene				100	99.8	80.0-120				
(S) 4-Bromofluorobenzene				98.3	94.6	80.0-120				

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3226399-3 06/10/17 11:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	92.6			80.0-120
(S) Dibromofluoromethane	87.1			76.0-123
(S) a,a,a-Trifluorotoluene	92.9			80.0-120
(S) 4-Bromofluorobenzene	92.3			80.0-120

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

(LCS) R3226399-1 06/10/17 10:15 • (LCSD) R3226399-2 06/10/17 10:30

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 %
Benzene	0.0250	0.0241	0.0239	96.5	95.5	69.0-123			1.07	20
Ethylbenzene	0.0250	0.0248	0.0251	99.3	100	77.0-120			1.01	20
Toluene	0.0250	0.0246	0.0248	98.2	99.2	77.0-120			0.970	20
Xylenes, Total	0.0750	0.0738	0.0739	98.4	98.5	77.0-120			0.140	20
(S) Toluene-d8				91.7	92.0	80.0-120				
(S) Dibromofluoromethane				92.2	92.5	76.0-123				
(S) a,a,a-Trifluorotoluene				91.2	90.9	80.0-120				
(S) 4-Bromofluorobenzene				86.5	88.5	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3225839-1 06/14/17 12:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	81.8			31.0-160

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

(LCS) R3225839-2 06/14/17 12:38 • (LCSD) R3225839-3 06/14/17 12:55

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 %
TPH (GC/FID) High Fraction	1.50	1.39	1.35	92.7	90.3	50.0-150			2.63	20
(S) o-Terphenyl				82.9	82.4	31.0-160				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<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



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

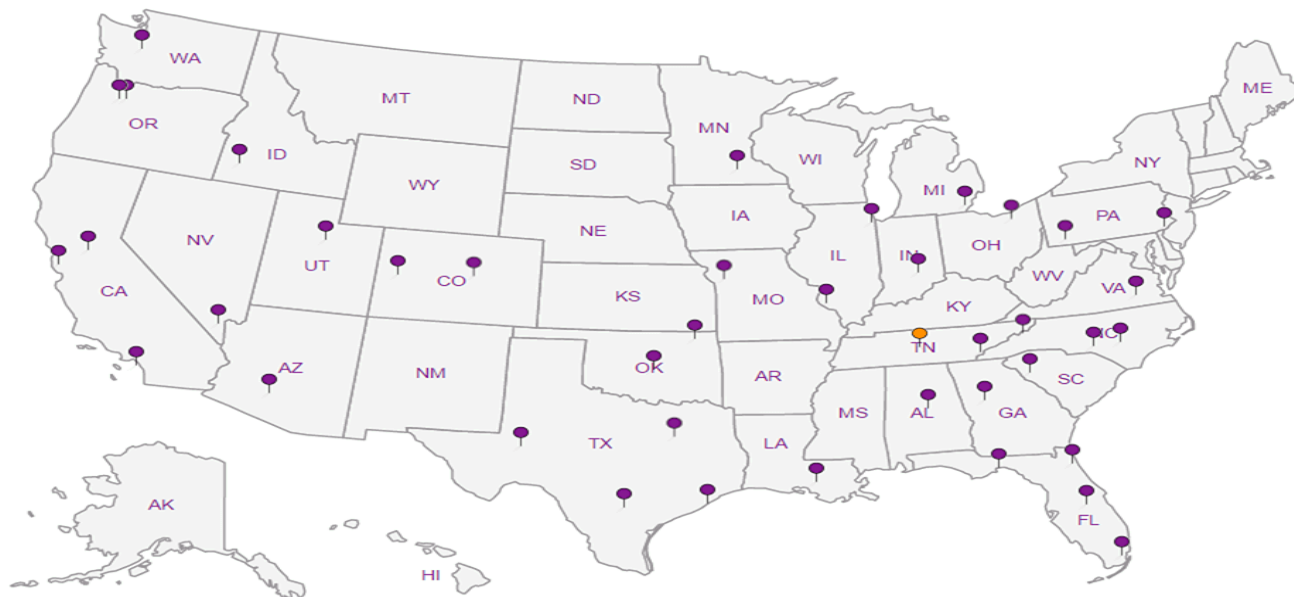
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
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>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address: <b>Olsson Associates</b>  <b>760 Horizon Drive, Suite 102</b> <b>Grand Junction, CO 81506</b>						Billing Information:  						Analysis / Container / Preservative  						Chain of Custody Page 1 of 1  <b>L.A.B S.C.I.E.N.C.E.S.</b>  YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 					
Report to: <b>Robert Stockton</b>						Email To: <b>rstockton@olssonassociates.com</b>																	
Project Description: <b>HCWTF</b>						City/State Collected: <b>CO</b>																	
Phone: (970) 263-7800 Fax:						Client Project # <b>017-0583</b>						Lab Project #											
Collected by (print): <b>Robert Stockton</b>						Site/Facility ID # <b>HCWTF</b>						P.O. #											
Collected by (signature): 						<b>Rush?</b> (Lab MUST Be Notified) <input type="checkbox"/> Same Day .....200% <input type="checkbox"/> Next Day .....100% <input type="checkbox"/> Two Day .....50% <input type="checkbox"/> Three Day .....25%						Date Results Needed  Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes											
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>						No. of Cntrs						<b>V8260BTEX (2 - 40ml vials w/ HCL)</b>  <b>GRO (2 - 40ml vials w/ HCL)</b>  <b>DROLVI (2 - 40ml vials w/ HCL)</b>  <b>Dissolved metals (500 ml HDPE, no pres)***</b>  <b>Br, Cl, F, NO<sub>2</sub>, NO<sub>3</sub>, SO<sub>4</sub> (500 ml, no pres)</b>  <b>SPCON, pH, (500 ml HDPE, no pres)</b>  <b>Total Alkalinity (500 ml HDPE, no pres)</b>  <b>Chlorides, Sulfates</b>											
												<b>*** - Ca, Fe, Mg, Mn, K, Se, Na</b>											
Sample ID						Comp/Grab		Matrix *		Depth		Date		Time		Cntrs							
MW-1						Grab		GW				6/7/17		1020		8							
MW-2						Grab		GW				6/7/17		1057		8							
MW-3						Grab		GW				6/7/17		1144		8							
Cabin						Grab		GW				6/7/17		1220		8							
HC						Grab		GW				6/7/17		1242		8							
BC						Grab		GW				6/7/17		1310		8							
																		Rem./Contaminant      Sample # (lab only)					
																		Acctnum: Template: Prelogin: TSR: Cooler: Shipped Via:					
																		L# <b>917488</b> <b>D154</b>					

\* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Remarks:

Relinquished by: (Signature) 		Date: <b>6/7/2017</b> Time: <b>1600</b>		Received by: (Signature) 		Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only)	
Relinquished by: (Signature) 		Date: <b>6/7/17</b> Time: <b>1700</b>		Received by: (Signature) 		Temp: °C <b>22m</b> Bottles Received: <b>48</b>		COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquished by: (Signature) 		Date: _____ Time: _____		Received for lab by: (Signature) 		Date: <b>6-8-17</b> Time: <b>0845</b>		pH Checked: _____ NCF: <b>X</b>	

## ESC LAB SCIENCES Cooler Receipt Form

Client: <i>DLSS one</i>	SDG#	91448	
Cooler Received/Opened On: 6/ 8 /17	Temperature: 22		
Received by : Jon Deboard			
Signature: <i>J Deboard</i>			
<b>Receipt Check List</b>	<b>NP</b>	<b>Yes</b>	<b>No</b>
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?		/	

*6/8*

**Matt Shacklock**

**ESC Lab Sciences**  
**Non-Conformance Form**

<b>94448</b> Login #914364	Client: OLSSONCO	Date: 6/8	Evaluated by: Matt S
-------------------------------	------------------	-----------	----------------------

**Non-Conformance (check applicable items)**

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	x Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	<b>If no Chain of Custody:</b>
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

**Login Comments:**

1. Received 2 sets of IDs for MW-3. One of them has time of 1020(MW-1) which we didn't receive.
2. No analysis marked

Client informed by:	Call	Email	Voice Mail	Date: 06/08/17	Time: 0944
TSR Initials: JCR      Client Contact:					

**Login Instructions:**

- 1) Log per COC using sample collect times.
- 2) Analyze all samples for all analyses on COC.

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.



October 10, 2017

## Entrada Consulting Group

Sample Delivery Group: L939962  
Samples Received: 09/29/2017  
Project Number:  
Description: HCWTF  
Site: HCWTF  
Report To: Robert Stockton  
240 Mesa Avenue  
Grand Junction, CO 81501

Entire Report Reviewed By:



Shane Gambill

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
MW-1 L939962-01	5
MW-3 L939962-02	7
BUZZARD CREEK L939962-03	9
Qc: Quality Control Summary	11
Wet Chemistry by Method 2320 B-2011	11
Wet Chemistry by Method 9040C	12
Wet Chemistry by Method 9050A	13
Wet Chemistry by Method 9056A	14
Metals (ICP) by Method 6010B	16
Volatile Organic Compounds (GC) by Method 8015D/GRO	17
Volatile Organic Compounds (GC/MS) by Method 8260B	18
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	19
Gl: Glossary of Terms	20
Al: Accreditations & Locations	21
Sc: Sample Chain of Custody	22



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW-1 L939962-01 GW

Collected by Robert Stockton  
Collected date/time 09/28/17 10:35  
Received date/time 09/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1029209	1	10/09/17 23:05	10/09/17 23:05	MCG
Wet Chemistry by Method 9040C	WG1025306	1	09/29/17 14:56	09/29/17 14:56	ER
Wet Chemistry by Method 9050A	WG1027525	1	10/04/17 16:07	10/04/17 16:07	MZ
Wet Chemistry by Method 9056A	WG1026265	1	09/29/17 22:45	09/29/17 22:45	MAJ
Metals (ICP) by Method 6010B	WG1028490	1	10/06/17 15:47	10/07/17 14:00	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1026520	1	10/02/17 08:08	10/02/17 08:08	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1026757	1	10/02/17 10:45	10/02/17 10:45	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1027430	1	10/03/17 23:48	10/05/17 15:07	TH

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

## MW-3 L939962-02 GW

Collected by Robert Stockton  
Collected date/time 09/28/17 10:20  
Received date/time 09/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1029209	1	10/10/17 04:42	10/10/17 04:42	MCG
Wet Chemistry by Method 9040C	WG1025306	1	09/29/17 14:56	09/29/17 14:56	ER
Wet Chemistry by Method 9050A	WG1027525	1	10/04/17 16:07	10/04/17 16:07	MZ
Wet Chemistry by Method 9056A	WG1026265	1	09/29/17 22:55	09/29/17 22:55	MAJ
Metals (ICP) by Method 6010B	WG1028490	1	10/06/17 15:47	10/07/17 15:12	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1026520	1	10/02/17 08:30	10/02/17 08:30	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1026757	1	10/02/17 11:04	10/02/17 11:04	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1027430	1	10/03/17 23:48	10/05/17 15:27	TH

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## BUZZARD CREEK L939962-03 GW

Collected by Robert Stockton  
Collected date/time 09/28/17 11:05  
Received date/time 09/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1029209	1	10/10/17 04:56	10/10/17 04:56	MCG
Wet Chemistry by Method 9040C	WG1025306	1	09/29/17 14:56	09/29/17 14:56	ER
Wet Chemistry by Method 9050A	WG1027525	1	10/04/17 16:07	10/04/17 16:07	MZ
Wet Chemistry by Method 9056A	WG1026265	1	09/29/17 23:06	09/29/17 23:06	MAJ
Metals (ICP) by Method 6010B	WG1028490	1	10/06/17 15:47	10/07/17 15:15	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1026520	1	10/02/17 08:52	10/02/17 08:52	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1026757	1	10/02/17 11:23	10/02/17 11:23	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1027430	1	10/03/17 23:48	10/05/17 15:47	TH



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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.

Shane Gambill  
Technical Service Representative

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	261		20.0	1	10/09/2017 23:05	<a href="#">WG1029209</a>

## Sample Narrative:

L939962-01 WG1029209: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.45	<a href="#">T8</a>	1	09/29/2017 14:56	<a href="#">WG1025306</a>

## Sample Narrative:

L939962-01 WG1025306: 7.45 at 17.0c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	139		1	10/04/2017 16:07	<a href="#">WG1027525</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	09/29/2017 22:45	<a href="#">WG1026265</a>
Chloride	23.4		1.00	1	09/29/2017 22:45	<a href="#">WG1026265</a>
Fluoride	0.199		0.100	1	09/29/2017 22:45	<a href="#">WG1026265</a>
Nitrate as (N)	0.449		0.100	1	09/29/2017 22:45	<a href="#">WG1026265</a>
Nitrite as (N)	ND		0.100	1	09/29/2017 22:45	<a href="#">WG1026265</a>
Sulfate	49.5		5.00	1	09/29/2017 22:45	<a href="#">WG1026265</a>

## Metals (ICP) by Method 6010B

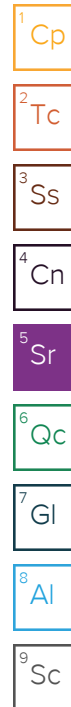
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	74.7		1.00	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Iron,Dissolved	ND		0.100	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Magnesium,Dissolved	15.1		1.00	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Manganese,Dissolved	ND		0.0100	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Potassium,Dissolved	2.30		1.00	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Selenium,Dissolved	ND		0.0100	1	10/07/2017 14:00	<a href="#">WG1028490</a>
Sodium,Dissolved	47.5		1.00	1	10/07/2017 14:00	<a href="#">WG1028490</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2017 08:08	<a href="#">WG1026520</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102		77.0-122		10/02/2017 08:08	<a href="#">WG1026520</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	10/02/2017 10:45	<a href="#">WG1026757</a>
Toluene	ND		0.00100	1	10/02/2017 10:45	<a href="#">WG1026757</a>
Ethylbenzene	ND		0.00100	1	10/02/2017 10:45	<a href="#">WG1026757</a>
Total Xylenes	ND		0.00300	1	10/02/2017 10:45	<a href="#">WG1026757</a>
(S) <i>Toluene-d8</i>	104		80.0-120		10/02/2017 10:45	<a href="#">WG1026757</a>





Collected date/time: 09/28/17 10:35

L939962

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Dibromofluoromethane	89.5		76.0-123		10/02/2017 10:45	<a href="#">WG1026757</a>
(S) a,a,a-Trifluorotoluene	106		80.0-120		10/02/2017 10:45	<a href="#">WG1026757</a>
(S) 4-Bromofluorobenzene	91.7		80.0-120		10/02/2017 10:45	<a href="#">WG1026757</a>

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.104		0.100	1	10/05/2017 15:07	<a href="#">WG1027430</a>
(S) o-Terphenyl	89.0		31.0-160		10/05/2017 15:07	<a href="#">WG1027430</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	287		20.0	1	10/10/2017 04:42	<a href="#">WG1029209</a>

## Sample Narrative:

L939962-02 WG1029209: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.70	<a href="#">T8</a>	1	09/29/2017 14:56	<a href="#">WG1025306</a>

## Sample Narrative:

L939962-02 WG1025306: 7.70 at 16.9c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	umhos/cm			date / time	
Specific Conductance	648		1	10/04/2017 16:07	<a href="#">WG1027525</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	09/29/2017 22:55	<a href="#">WG1026265</a>
Chloride	12.4		1.00	1	09/29/2017 22:55	<a href="#">WG1026265</a>
Fluoride	0.210		0.100	1	09/29/2017 22:55	<a href="#">WG1026265</a>
Nitrate as (N)	1.49		0.100	1	09/29/2017 22:55	<a href="#">WG1026265</a>
Nitrite as (N)	ND		0.100	1	09/29/2017 22:55	<a href="#">WG1026265</a>
Sulfate	19.8		5.00	1	09/29/2017 22:55	<a href="#">WG1026265</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	67.2		1.00	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Iron,Dissolved	ND		0.100	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Magnesium,Dissolved	10.6		1.00	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Manganese,Dissolved	ND		0.0100	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Potassium,Dissolved	2.35		1.00	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Selenium,Dissolved	ND		0.0100	1	10/07/2017 15:12	<a href="#">WG1028490</a>
Sodium,Dissolved	70.3		1.00	1	10/07/2017 15:12	<a href="#">WG1028490</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2017 08:30	<a href="#">WG1026520</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100		77.0-122		10/02/2017 08:30	<a href="#">WG1026520</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	10/02/2017 11:04	<a href="#">WG1026757</a>
Toluene	ND		0.00100	1	10/02/2017 11:04	<a href="#">WG1026757</a>
Ethylbenzene	ND		0.00100	1	10/02/2017 11:04	<a href="#">WG1026757</a>
Total Xylenes	ND		0.00300	1	10/02/2017 11:04	<a href="#">WG1026757</a>
(S) <i>Toluene-d8</i>	101		80.0-120		10/02/2017 11:04	<a href="#">WG1026757</a>

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



Collected date/time: 09/28/17 10:20

L939962

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

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
(S) Dibromofluoromethane	96.2		76.0-123		10/02/2017 11:04	<a href="#">WG1026757</a>
(S) a,a,a-Trifluorotoluene	108		80.0-120		10/02/2017 11:04	<a href="#">WG1026757</a>
(S) 4-Bromofluorobenzene	89.8		80.0-120		10/02/2017 11:04	<a href="#">WG1026757</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	10/05/2017 15:27	<a href="#">WG1027430</a>
(S) o-Terphenyl	83.9		31.0-160		10/05/2017 15:27	<a href="#">WG1027430</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	207		20.0	1	10/10/2017 04:56	<a href="#">WG1029209</a>

## Sample Narrative:

L939962-03 WG1029209: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.00	<a href="#">T8</a>	1	09/29/2017 14:56	<a href="#">WG1025306</a>

## Sample Narrative:

L939962-03 WG1025306: 8.00 at 17.8c

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	463		1	10/04/2017 16:07	<a href="#">WG1027525</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	09/29/2017 23:06	<a href="#">WG1026265</a>
Chloride	11.0		1.00	1	09/29/2017 23:06	<a href="#">WG1026265</a>
Fluoride	0.189		0.100	1	09/29/2017 23:06	<a href="#">WG1026265</a>
Nitrate as (N)	ND		0.100	1	09/29/2017 23:06	<a href="#">WG1026265</a>
Nitrite as (N)	ND		0.100	1	09/29/2017 23:06	<a href="#">WG1026265</a>
Sulfate	23.5		5.00	1	09/29/2017 23:06	<a href="#">WG1026265</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	54.8		1.00	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Iron,Dissolved	ND		0.100	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Magnesium,Dissolved	13.4		1.00	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Manganese,Dissolved	ND		0.0100	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Potassium,Dissolved	2.87		1.00	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Selenium,Dissolved	ND		0.0100	1	10/07/2017 15:15	<a href="#">WG1028490</a>
Sodium,Dissolved	27.5		1.00	1	10/07/2017 15:15	<a href="#">WG1028490</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2017 08:52	<a href="#">WG1026520</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	101		77.0-122		10/02/2017 08:52	<a href="#">WG1026520</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/02/2017 11:23	<a href="#">WG1026757</a>
Toluene	ND		0.00100	1	10/02/2017 11:23	<a href="#">WG1026757</a>
Ethylbenzene	ND		0.00100	1	10/02/2017 11:23	<a href="#">WG1026757</a>
Total Xylenes	ND		0.00300	1	10/02/2017 11:23	<a href="#">WG1026757</a>
(S) <i>Toluene-d8</i>	104		80.0-120		10/02/2017 11:23	<a href="#">WG1026757</a>



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

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
(S) Dibromofluoromethane	90.7		76.0-123		10/02/2017 11:23	<a href="#">WG1026757</a>
(S) a,a,a-Trifluorotoluene	107		80.0-120		10/02/2017 11:23	<a href="#">WG1026757</a>
(S) 4-Bromofluorobenzene	98.9		80.0-120		10/02/2017 11:23	<a href="#">WG1026757</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	0.107		0.100	1	10/05/2017 15:47	<a href="#">WG1027430</a>
(S) o-Terphenyl	85.1		31.0-160		10/05/2017 15:47	<a href="#">WG1027430</a>

1  
Cp2  
Tc3  
Ss4  
Cn5  
Sr6  
Qc7  
Gl8  
Al9  
Sc

Method Blank (MB)

(MB) R3256038-1 10/09/17 22:01

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Alkalinity	3.27	⬇	2.71	20.0

Sample Narrative:  
BLANK: Endpoint pH 4.5

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L939962-02 Original Sample (OS) • Duplicate (DUP)

(OS) L939962-02 10/10/17 04:42 • (DUP) R3256038-3 10/10/17 04:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	287	291	1	1.00		20

Sample Narrative:  
OS: Endpoint pH 4.5  
DUP: Endpoint pH 4.5

L940064-05 Original Sample (OS) • Duplicate (DUP)

(OS) L940064-05 10/10/17 08:27 • (DUP) R3256038-7 10/10/17 08:34

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	21.7	21.7	1	0.000		20

Sample Narrative:  
OS: Endpoint pH 4.5  
DUP: Endpoint pH 4.5

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

(LCS) R3256038-2 10/09/17 23:11 • (LCSD) R3256038-6 10/10/17 08:06

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Alkalinity	100	105	110	105	110	85.0-115			5.00	20

Sample Narrative:  
LCS: Endpoint pH 4.5  
LCSD: Endpoint pH 4.5



L939127-01 Original Sample (OS) • Duplicate (DUP)

(OS) L939127-01 09/29/17 14:56 • (DUP) WG1025306-3 09/29/17 14:56

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.35	7.36	1	0.136	T8	1

Sample Narrative:

OS: 7.35 at 13.8c

DUP: 7.36 at 13.8c

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

L939962-03 Original Sample (OS) • Duplicate (DUP)

(OS) L939962-03 09/29/17 14:56 • (DUP) WG1025306-4 09/29/17 14:56

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.00	8.00	1	0.000	T8	1

Sample Narrative:

OS: 8.00 at 17.8c

DUP: 8.00 at 17.7c

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

(LCS) WG1025306-1 09/29/17 14:56 • (LCSD) WG1025306-2 09/29/17 14:56

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	su	su	su	%	%	%			%	%
pH	10.0	9.95	9.95	99.5	99.5	98.4-102			0.000	1

Sample Narrative:

LCS: 9.95 at 20.6c

LCSD: 9.95 at 20.6c



Method Blank (MB)

(MB) WG1027525-1 10/04/17 16:07

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	umhos/cm		umhos/cm	umhos/cm
Specific Conductance	3.02			

<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

L939302-01 Original Sample (OS) • Duplicate (DUP)

(OS) L939302-01 10/04/17 16:07 • (DUP) WG1027525-4 10/04/17 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	707	708	1	0.141		20

L939961-01 Original Sample (OS) • Duplicate (DUP)

(OS) L939961-01 10/04/17 16:07 • (DUP) WG1027525-5 10/04/17 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	528	527	1	0.190		20

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

(LCS) WG1027525-2 10/04/17 16:07 • (LCSD) WG1027525-3 10/04/17 16:07

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	umhos/cm	umhos/cm	umhos/cm	%	%	%			%	%
Specific Conductance	559	562	561	101	100	90.0-110			0.178	20

Method Blank (MB)

(MB) R3253646-1 09/29/17 19:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	U		0.079	1.00
Chloride	U		0.0519	1.00
Fluoride	U		0.0099	0.100
Nitrate	U		0.0227	0.100
Nitrite	U		0.0277	0.100
Sulfate	U		0.0774	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

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L939949-08 Original Sample (OS) • Duplicate (DUP)

(OS) L939949-08 09/29/17 20:03 • (DUP) R3253646-4 09/29/17 20:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	0.000	1	0		15
Chloride	15.4	15.0	1	3		15
Fluoride	0.193	0.171	1	12		15
Nitrite	U	0.000	1	0		15
Sulfate	11.8	11.7	1	1		15

L940011-01 Original Sample (OS) • Duplicate (DUP)

(OS) L940011-01 09/29/17 23:36 • (DUP) R3253646-7 09/29/17 23:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	ND	0.000	1	0		15
Chloride	16.0	14.7	1	8		15
Fluoride	0.946	0.902	1	5		15
Nitrate	ND	0.000	1	0		15
Nitrite	ND	0.000	1	0		15
Sulfate	ND	3.71	1	0		15

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

(LCS) R3253646-2 09/29/17 19:22 • (LCSD) R3253646-3 09/29/17 19:32

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 %
Bromide	40.0	39.3	39.6	98	99	80-120			1	15
Chloride	40.0	39.3	39.6	98	99	80-120			1	15

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

(LCS) R3253646-2 09/29/17 19:22 • (LCSD) R3253646-3 09/29/17 19:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluoride	8.00	8.15	8.15	102	102	80-120			0	15
Nitrate	8.00	8.20	8.17	103	102	80-120			0	15
Nitrite	8.00	8.07	8.18	101	102	80-120			1	15
Sulfate	40.0	39.6	39.7	99	99	80-120			0	15

L939949-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L939949-08 09/29/17 20:03 • (MS) R3253646-5 09/29/17 20:23 • (MSD) R3253646-6 09/29/17 20:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Bromide	50.0	U	42.6	38.0	85	76	1	80-120		<u>J6</u>	11	15
Chloride	50.0	15.4	58.1	56.8	85	83	1	80-120			2	15
Fluoride	5.00	0.193	4.53	4.06	87	77	1	80-120		<u>J6</u>	11	15
Nitrite	5.00	U	4.31	4.12	86	82	1	80-120			4	15
Sulfate	50.0	11.8	54.8	54.8	86	86	1	80-120			0	15

L940011-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L940011-01 09/29/17 23:36 • (MS) R3253646-8 09/29/17 23:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Bromide	50.0	ND	40.0	80	1	80-120	
Chloride	50.0	16.0	59.4	87	1	80-120	
Fluoride	5.00	0.946	5.00	81	1	80-120	
Nitrate	5.00	ND	3.97	79	1	80-120	<u>J6</u>
Nitrite	5.00	ND	4.31	86	1	80-120	
Sulfate	50.0	ND	47.8	88	1	80-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3255721-1 10/07/17 13:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium,Dissolved	0.0686	U	0.0463	1.00
Iron,Dissolved	0.0591	U	0.0141	0.100
Magnesium,Dissolved	0.0757	U	0.0111	1.00
Manganese,Dissolved	U		0.0012	0.0100
Potassium,Dissolved	U		0.102	1.00
Selenium,Dissolved	U		0.0074	0.0100
Sodium,Dissolved	U		0.0985	1.00

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

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

(LCS) R3255721-2 10/07/17 13:54 • (LCSD) R3255721-3 10/07/17 13:57

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 %
Calcium,Dissolved	10.0	9.80	9.88	98	99	80-120			1	20
Iron,Dissolved	10.0	9.60	9.69	96	97	80-120			1	20
Magnesium,Dissolved	10.0	10.1	10.1	101	101	80-120			0	20
Manganese,Dissolved	1.00	0.949	0.952	95	95	80-120			0	20
Potassium,Dissolved	10.0	9.81	9.91	98	99	80-120			1	20
Selenium,Dissolved	1.00	0.954	0.955	95	95	80-120			0	20
Sodium,Dissolved	10.0	9.64	9.76	96	98	80-120			1	20

L939962-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L939962-01 10/07/17 14:00 • (MS) R3255721-5 10/07/17 14:06 • (MSD) R3255721-6 10/07/17 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium,Dissolved	10.0	74.7	83.2	83.3	85	86	1	75-125			0	20
Iron,Dissolved	10.0	ND	9.59	9.63	96	96	1	75-125			0	20
Magnesium,Dissolved	10.0	15.1	24.4	24.5	93	94	1	75-125			0	20
Manganese,Dissolved	1.00	ND	0.951	0.951	95	95	1	75-125			0	20
Potassium,Dissolved	10.0	2.30	11.9	12.1	96	98	1	75-125			1	20
Selenium,Dissolved	1.00	ND	1.00	0.997	100	100	1	75-125			0	20
Sodium,Dissolved	10.0	47.5	55.1	55.9	76	84	1	75-125			2	20





Method Blank (MB)

(MB) R3254607-3 10/02/17 02:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-122

1  
Cp

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Tc

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Ss

4  
Cn

5  
Sr

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Qc

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Gl

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Al

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Sc

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

(LCS) R3254607-1 10/02/17 00:58 • (LCSD) R3254607-2 10/02/17 01:20

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 %
TPH (GC/FID) Low Fraction	5.50	5.61	5.91	102	107	71.0-136			5.20	20
(S) a,a,a-Trifluorotoluene(FID)				104	102	77.0-122				

L939985-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L939985-02 10/02/17 09:36 • (MS) R3254607-4 10/02/17 09:58 • (MSD) R3254607-5 10/02/17 10:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0801	4.46	4.48	79.7	80.0	1	18.0-160			0.360	20
(S) a,a,a-Trifluorotoluene(FID)					101	102		77.0-122				



Method Blank (MB)

(MB) R3255458-2 10/02/17 10:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	92.2			76.0-123
(S) a,a,a-Trifluorotoluene	105			80.0-120
(S) 4-Bromofluorobenzene	87.2			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3255458-1 10/02/17 09:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0204	81.8	69.0-123	
Ethylbenzene	0.0250	0.0259	104	77.0-120	
Toluene	0.0250	0.0233	93.2	77.0-120	
Xylenes, Total	0.0750	0.0769	103	77.0-120	
(S) Toluene-d8			104	80.0-120	
(S) Dibromofluoromethane			89.4	76.0-123	
(S) a,a,a-Trifluorotoluene			107	80.0-120	
(S) 4-Bromofluorobenzene			89.1	80.0-120	

<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) R3255297-1 10/05/17 11:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	80.7			31.0-160

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

(LCS) R3255297-2 10/05/17 12:05 • (LCSD) R3255297-3 10/05/17 12:25

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 %
TPH (GC/FID) High Fraction	1.50	1.64	1.67	109	112	50.0-150			2.06	20
(S) o-Terphenyl				89.6	94.4	31.0-160				

<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



## 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.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, 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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

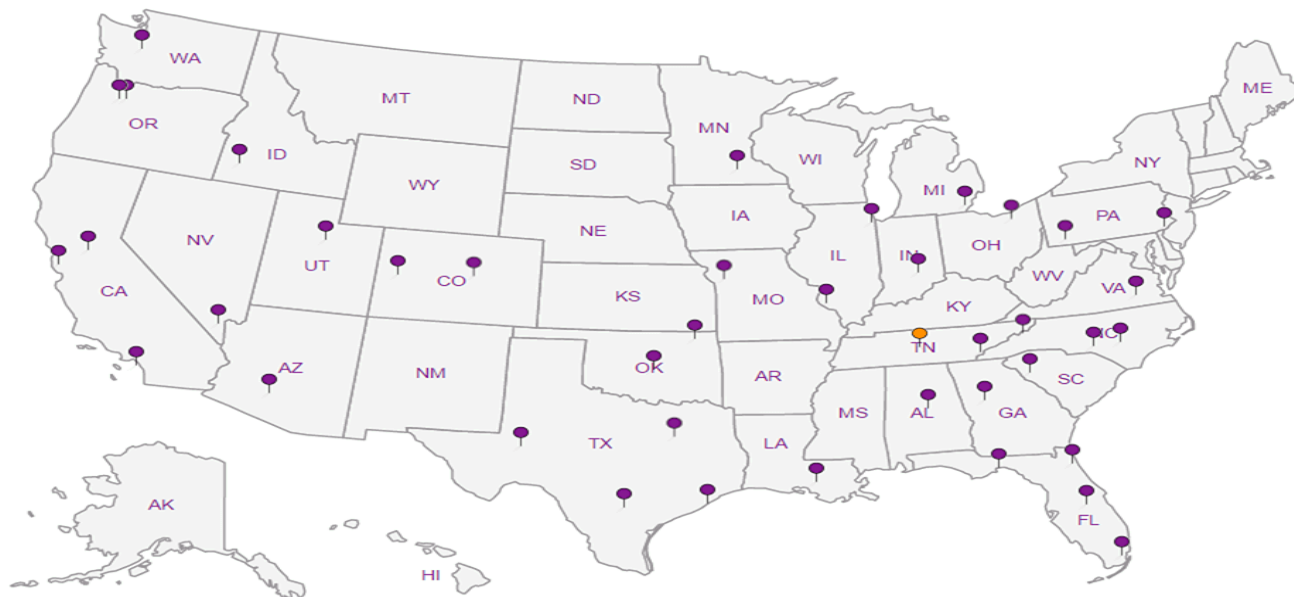
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
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>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**





## ESC LAB SCIENCES Cooler Receipt Form

Client: <u>ENTCONGSCO</u>	SDG#	<u>1939962</u>	
Cooler Received/Opened On: <u>9/29 /17</u>	Temperature:	<u>0.4</u>	
Received by: Michael Witherspoon			
Signature: <u>MW</u>			
<b>Receipt Check List</b>	<b>NP</b>	<b>Yes</b>	<b>No</b>
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			



December 12, 2017

## Entrada Consulting Group

Sample Delivery Group: L954576  
Samples Received: 12/02/2017  
Project Number: 017-013  
Description: HCWTF  
Site: HCWTF  
Report To: Robert Stockton  
240 Mesa Avenue  
Grand Junction, CO 81501

Entire Report Reviewed By:



Jason Romer  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





<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>
BC L954576-01	6
HC L954576-02	8
CABIN L954576-03	10
MW1 L954576-04	12
MW-3 L954576-05	14
<b>Qc: Quality Control Summary</b>	<b>16</b>
Wet Chemistry by Method 2320 B-2011	16
Wet Chemistry by Method 9040C	17
Wet Chemistry by Method 9050A	18
Wet Chemistry by Method 9056A	19
Metals (ICP) by Method 6010B	25
Volatile Organic Compounds (GC) by Method 8015D/GRO	26
Volatile Organic Compounds (GC/MS) by Method 8260B	27
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	28
<b>Gl: Glossary of Terms</b>	<b>29</b>
<b>Al: Accreditations &amp; Locations</b>	<b>30</b>
<b>Sc: Sample Chain of Custody</b>	<b>31</b>



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## BC L954576-01 GW

Collected by Robert Stockton  
Collected date/time 12/01/17 15:00  
Received date/time 12/02/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1049693	1	12/06/17 12:22	12/06/17 12:22	MCG
Wet Chemistry by Method 9040C	WG1048820	1	12/02/17 15:15	12/02/17 15:15	ER
Wet Chemistry by Method 9050A	WG1049056	1	12/03/17 16:17	12/03/17 16:17	TH
Wet Chemistry by Method 9056A	WG1048758	1	12/02/17 19:38	12/02/17 19:38	MAJ
Wet Chemistry by Method 9056A	WG1051837	1	12/10/17 17:31	12/10/17 17:31	KCF
Metals (ICP) by Method 6010B	WG1048868	1	12/06/17 07:22	12/06/17 11:58	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1049399	1	12/05/17 01:27	12/05/17 01:27	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048843	1	12/02/17 19:40	12/02/17 19:40	JAH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1049113	1	12/04/17 22:55	12/07/17 00:17	TH

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

## HC L954576-02 GW

Collected by Robert Stockton  
Collected date/time 12/01/17 14:35  
Received date/time 12/02/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1049693	1	12/06/17 12:28	12/06/17 12:28	MCG
Wet Chemistry by Method 9040C	WG1048820	1	12/02/17 15:15	12/02/17 15:15	ER
Wet Chemistry by Method 9050A	WG1049056	1	12/03/17 16:17	12/03/17 16:17	TH
Wet Chemistry by Method 9056A	WG1048758	1	12/02/17 19:52	12/02/17 19:52	MAJ
Wet Chemistry by Method 9056A	WG1049512	5	12/05/17 22:06	12/05/17 22:06	DR
Wet Chemistry by Method 9056A	WG1051837	1	12/10/17 17:43	12/10/17 17:43	KCF
Metals (ICP) by Method 6010B	WG1048868	1	12/06/17 07:22	12/06/17 12:02	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1049399	1	12/05/17 01:51	12/05/17 01:51	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048843	1	12/04/17 04:28	12/04/17 04:28	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1049113	1	12/04/17 22:55	12/06/17 06:17	TH

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## CABIN L954576-03 GW

Collected by Robert Stockton  
Collected date/time 12/01/17 14:20  
Received date/time 12/02/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1049693	1	12/06/17 12:35	12/06/17 12:35	MCG
Wet Chemistry by Method 9040C	WG1048820	1	12/02/17 15:15	12/02/17 15:15	ER
Wet Chemistry by Method 9050A	WG1049056	1	12/03/17 16:17	12/03/17 16:17	TH
Wet Chemistry by Method 9056A	WG1048789	1	12/02/17 20:43	12/02/17 20:43	DR
Wet Chemistry by Method 9056A	WG1048789	10	12/02/17 20:57	12/02/17 20:57	DR
Metals (ICP) by Method 6010B	WG1048868	1	12/06/17 07:22	12/06/17 12:12	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1049399	1	12/05/17 02:15	12/05/17 02:15	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048843	1	12/02/17 20:23	12/02/17 20:23	JAH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1049113	1	12/04/17 22:55	12/06/17 06:37	TH

## MW1 L954576-04 GW

Collected by Robert Stockton  
Collected date/time 12/01/17 13:39  
Received date/time 12/02/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1049693	1	12/06/17 13:23	12/06/17 13:23	MCG
Wet Chemistry by Method 9040C	WG1048820	1	12/02/17 15:15	12/02/17 15:15	ER
Wet Chemistry by Method 9050A	WG1049056	1	12/03/17 16:17	12/03/17 16:17	TH
Wet Chemistry by Method 9056A	WG1048789	1	12/02/17 21:11	12/02/17 21:11	DR
Metals (ICP) by Method 6010B	WG1048868	1	12/06/17 07:22	12/06/17 12:15	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1049399	1	12/05/17 02:39	12/05/17 02:39	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048843	1	12/02/17 21:11	12/02/17 21:11	JAH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1049113	1	12/04/17 22:55	12/06/17 06:57	TH

ACCOUNT:

Entrada Consulting Group

PROJECT:

017-013

SDG:

L954576

DATE/TIME:

12/12/17 11:46

PAGE:

3 of 33

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-3 L954576-05 GW

Collected by  
Robert StocktonCollected date/time  
12/01/17 13:03Received date/time  
12/02/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1049693	1	12/06/17 13:31	12/06/17 13:31	MCG
Wet Chemistry by Method 9040C	WG1048820	1	12/02/17 15:15	12/02/17 15:15	ER
Wet Chemistry by Method 9050A	WG1049056	1	12/03/17 16:17	12/03/17 16:17	TH
Wet Chemistry by Method 9056A	WG1048789	1	12/02/17 21:38	12/02/17 21:38	DR
Metals (ICP) by Method 6010B	WG1048868	1	12/06/17 07:22	12/06/17 12:18	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1049399	1	12/05/17 03:02	12/05/17 03:02	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048843	1	12/02/17 21:32	12/02/17 21:32	JAH
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1049113	1	12/04/17 22:55	12/06/17 07:17	TH

<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

ACCOUNT:

Entrada Consulting Group

PROJECT:

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SDG:

L954576

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12/12/17 11:46

PAGE:

4 of 33



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. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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.

Jason Romer  
Technical Service Representative

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	221		20.0	1	12/06/2017 12:22	<a href="#">WG1049693</a>

## Sample Narrative:

L954576-01 WG1049693: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	<a href="#">T8</a>	1	12/02/2017 15:15	<a href="#">WG1048820</a>

## Sample Narrative:

L954576-01 WG1048820: 8.08 at 12.4C

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	439		10.0	1	12/03/2017 16:17	<a href="#">WG1049056</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	12/10/2017 17:31	<a href="#">WG1051837</a>
Chloride	4.19		1.00	1	12/02/2017 19:38	<a href="#">WG1048758</a>
Fluoride	ND		0.100	1	12/02/2017 19:38	<a href="#">WG1048758</a>
Nitrate as (N)	ND		0.100	1	12/02/2017 19:38	<a href="#">WG1048758</a>
Nitrite as (N)	ND		0.100	1	12/02/2017 19:38	<a href="#">WG1048758</a>
Sulfate	16.8		5.00	1	12/02/2017 19:38	<a href="#">WG1048758</a>

## Metals (ICP) by Method 6010B

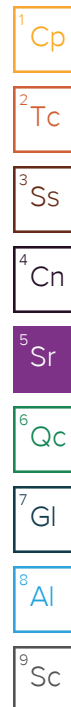
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	65.0		1.00	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Iron,Dissolved	ND		0.100	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Magnesium,Dissolved	13.5		1.00	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Manganese,Dissolved	ND		0.0100	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Potassium,Dissolved	1.57		1.00	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Selenium,Dissolved	ND		0.0100	1	12/06/2017 11:58	<a href="#">WG1048868</a>
Sodium,Dissolved	16.5		1.00	1	12/06/2017 11:58	<a href="#">WG1048868</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	12/05/2017 01:27	<a href="#">WG1049399</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102		77.0-122		12/05/2017 01:27	<a href="#">WG1049399</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	12/02/2017 19:40	<a href="#">WG1048843</a>
Toluene	ND		0.00100	1	12/02/2017 19:40	<a href="#">WG1048843</a>
Ethylbenzene	ND		0.00100	1	12/02/2017 19:40	<a href="#">WG1048843</a>
Total Xylenes	ND		0.00300	1	12/02/2017 19:40	<a href="#">WG1048843</a>
(S) <i>Toluene-d8</i>	102		80.0-120		12/02/2017 19:40	<a href="#">WG1048843</a>





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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Dibromofluoromethane	99.3		76.0-123		12/02/2017 19:40	<a href="#">WG1048843</a>
(S) a,a,a-Trifluorotoluene	102		80.0-120		12/02/2017 19:40	<a href="#">WG1048843</a>
(S) 4-Bromofluorobenzene	101		80.0-120		12/02/2017 19:40	<a href="#">WG1048843</a>

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	12/07/2017 00:17	<a href="#">WG1049113</a>
(S) o-Terphenyl	75.9		31.0-160		12/07/2017 00:17	<a href="#">WG1049113</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	347		20.0	1	12/06/2017 12:28	<a href="#">WG1049693</a>

### Sample Narrative:

L954576-02 WG1049693: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.04	<a href="#">T8</a>	1	12/02/2017 15:15	<a href="#">WG1048820</a>

### Sample Narrative:

L954576-02 WG1048820: 8.04 at 13.3C

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	1200		10.0	1	12/03/2017 16:17	<a href="#">WG1049056</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		1.00	1	12/10/2017 17:43	<a href="#">WG1051837</a>
Chloride	47.0		1.00	1	12/02/2017 19:52	<a href="#">WG1048758</a>
Fluoride	0.281		0.100	1	12/02/2017 19:52	<a href="#">WG1048758</a>
Nitrate as (N)	ND		0.100	1	12/02/2017 19:52	<a href="#">WG1048758</a>
Nitrite as (N)	ND		0.100	1	12/02/2017 19:52	<a href="#">WG1048758</a>
Sulfate	251		25.0	5	12/05/2017 22:06	<a href="#">WG1049512</a>

## Metals (ICP) by Method 6010B

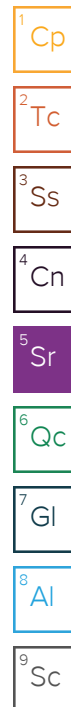
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium,Dissolved	105		1.00	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Iron,Dissolved	ND		0.100	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Magnesium,Dissolved	32.8		1.00	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Manganese,Dissolved	0.0420		0.0100	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Potassium,Dissolved	2.81		1.00	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Selenium,Dissolved	ND		0.0100	1	12/06/2017 12:02	<a href="#">WG1048868</a>
Sodium,Dissolved	139		1.00	1	12/06/2017 12:02	<a href="#">WG1048868</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	12/05/2017 01:51	<a href="#">WG1049399</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102		77.0-122		12/05/2017 01:51	<a href="#">WG1049399</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	12/04/2017 04:28	<a href="#">WG1048843</a>
Toluene	ND		0.00100	1	12/04/2017 04:28	<a href="#">WG1048843</a>
Ethylbenzene	ND		0.00100	1	12/04/2017 04:28	<a href="#">WG1048843</a>
Total Xylenes	ND		0.00300	1	12/04/2017 04:28	<a href="#">WG1048843</a>
(S) <i>Toluene-d8</i>	102		80.0-120		12/04/2017 04:28	<a href="#">WG1048843</a>





Collected date/time: 12/01/17 14:35

L954576

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

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
(S) Dibromofluoromethane	98.9		76.0-123		12/04/2017 04:28	<a href="#">WG1048843</a>
(S) a,a,a-Trifluorotoluene	102		80.0-120		12/04/2017 04:28	<a href="#">WG1048843</a>
(S) 4-Bromofluorobenzene	100		80.0-120		12/04/2017 04:28	<a href="#">WG1048843</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	12/06/2017 06:17	<a href="#">WG1049113</a>
(S) o-Terphenyl	83.0		31.0-160		12/06/2017 06:17	<a href="#">WG1049113</a>

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





## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	218		20.0	1	12/06/2017 12:35	<a href="#">WG1049693</a>

## Sample Narrative:

L954576-03 WG1049693: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.59	<a href="#">T8</a>	1	12/02/2017 15:15	<a href="#">WG1048820</a>

## Sample Narrative:

L954576-03 WG1048820: 8.59 at 12.6C

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1190		10.0	1	12/03/2017 16:17	<a href="#">WG1049056</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	12/02/2017 20:43	<a href="#">WG1048789</a>
Chloride	218		10.0	10	12/02/2017 20:57	<a href="#">WG1048789</a>
Fluoride	6.06		0.100	1	12/02/2017 20:43	<a href="#">WG1048789</a>
Nitrate as (N)	ND		0.100	1	12/02/2017 20:43	<a href="#">WG1048789</a>
Nitrite as (N)	ND		0.100	1	12/02/2017 20:43	<a href="#">WG1048789</a>
Sulfate	28.6		5.00	1	12/02/2017 20:43	<a href="#">WG1048789</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	3.61		1.00	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Iron,Dissolved	ND		0.100	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Magnesium,Dissolved	ND		1.00	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Manganese,Dissolved	0.0211		0.0100	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Potassium,Dissolved	ND		1.00	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Selenium,Dissolved	ND		0.0100	1	12/06/2017 12:12	<a href="#">WG1048868</a>
Sodium,Dissolved	254		1.00	1	12/06/2017 12:12	<a href="#">WG1048868</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	12/05/2017 02:15	<a href="#">WG1049399</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102		77.0-122		12/05/2017 02:15	<a href="#">WG1049399</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	12/02/2017 20:23	<a href="#">WG1048843</a>
Toluene	ND		0.00100	1	12/02/2017 20:23	<a href="#">WG1048843</a>
Ethylbenzene	ND		0.00100	1	12/02/2017 20:23	<a href="#">WG1048843</a>
Total Xylenes	ND		0.00300	1	12/02/2017 20:23	<a href="#">WG1048843</a>
(S) <i>Toluene-d8</i>	103		80.0-120		12/02/2017 20:23	<a href="#">WG1048843</a>

<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



Collected date/time: 12/01/17 14:20

L954576

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Dibromofluoromethane	100		76.0-123		12/02/2017 20:23	<a href="#">WG1048843</a>
(S) α,α,α-Trifluorotoluene	101		80.0-120		12/02/2017 20:23	<a href="#">WG1048843</a>
(S) 4-Bromofluorobenzene	100		80.0-120		12/02/2017 20:23	<a href="#">WG1048843</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.102	<a href="#">B</a>	0.100	1	12/06/2017 06:37	<a href="#">WG1049113</a>
(S) o-Terphenyl	82.7		31.0-160		12/06/2017 06:37	<a href="#">WG1049113</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	294		20.0	1	12/06/2017 13:23	<a href="#">WG1049693</a>

## Sample Narrative:

L954576-04 WG1049693: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.76	<a href="#">T8</a>	1	12/02/2017 15:15	<a href="#">WG1048820</a>

## Sample Narrative:

L954576-04 WG1048820: 7.76 at 12.8C

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	628		10.0	1	12/03/2017 16:17	<a href="#">WG1049056</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	12/02/2017 21:11	<a href="#">WG1048789</a>
Chloride	12.9		1.00	1	12/02/2017 21:11	<a href="#">WG1048789</a>
Fluoride	0.259		0.100	1	12/02/2017 21:11	<a href="#">WG1048789</a>
Nitrate as (N)	1.44		0.100	1	12/02/2017 21:11	<a href="#">WG1048789</a>
Nitrite as (N)	0.100		0.100	1	12/02/2017 21:11	<a href="#">WG1048789</a>
Sulfate	19.4		5.00	1	12/02/2017 21:11	<a href="#">WG1048789</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	56.1		1.00	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Iron,Dissolved	ND		0.100	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Magnesium,Dissolved	7.91		1.00	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Manganese,Dissolved	ND		0.0100	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Potassium,Dissolved	2.39		1.00	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Selenium,Dissolved	ND		0.0100	1	12/06/2017 12:15	<a href="#">WG1048868</a>
Sodium,Dissolved	80.6		1.00	1	12/06/2017 12:15	<a href="#">WG1048868</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	12/05/2017 02:39	<a href="#">WG1049399</a>
(S) a,a,a-Trifluorotoluene(FID)	103		77.0-122		12/05/2017 02:39	<a href="#">WG1049399</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	12/02/2017 21:11	<a href="#">WG1048843</a>
Toluene	ND		0.00100	1	12/02/2017 21:11	<a href="#">WG1048843</a>
Ethylbenzene	ND		0.00100	1	12/02/2017 21:11	<a href="#">WG1048843</a>
Total Xylenes	ND		0.00300	1	12/02/2017 21:11	<a href="#">WG1048843</a>
(S) Toluene-d8	102		80.0-120		12/02/2017 21:11	<a href="#">WG1048843</a>

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



Collected date/time: 12/01/17 13:39

L954576

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

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
(S) Dibromofluoromethane	98.4		76.0-123		12/02/2017 21:11	<a href="#">WG1048843</a>
(S) a,a,a-Trifluorotoluene	103		80.0-120		12/02/2017 21:11	<a href="#">WG1048843</a>
(S) 4-Bromofluorobenzene	99.3		80.0-120		12/02/2017 21:11	<a href="#">WG1048843</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	12/06/2017 06:57	<a href="#">WG1049113</a>
(S) o-Terphenyl	79.8		31.0-160		12/06/2017 06:57	<a href="#">WG1049113</a>

<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



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Alkalinity	248		20.0	1	12/06/2017 13:31	<a href="#">WG1049693</a>

## Sample Narrative:

L954576-05 WG1049693: Endpoint pH 4.5

## Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.64	<a href="#">T8</a>	1	12/02/2017 15:15	<a href="#">WG1048820</a>

## Sample Narrative:

L954576-05 WG1048820: 7.64 at 12.4C

## Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	616		10.0	1	12/03/2017 16:17	<a href="#">WG1049056</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Bromide	ND		1.00	1	12/02/2017 21:38	<a href="#">WG1048789</a>
Chloride	22.6		1.00	1	12/02/2017 21:38	<a href="#">WG1048789</a>
Fluoride	0.267		0.100	1	12/02/2017 21:38	<a href="#">WG1048789</a>
Nitrate as (N)	0.752		0.100	1	12/02/2017 21:38	<a href="#">WG1048789</a>
Nitrite as (N)	ND		0.100	1	12/02/2017 21:38	<a href="#">WG1048789</a>
Sulfate	45.4		5.00	1	12/02/2017 21:38	<a href="#">WG1048789</a>

## Metals (ICP) by Method 6010B

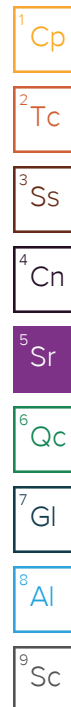
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium,Dissolved	73.3		1.00	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Iron,Dissolved	ND		0.100	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Magnesium,Dissolved	14.2		1.00	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Manganese,Dissolved	ND		0.0100	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Potassium,Dissolved	2.41		1.00	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Selenium,Dissolved	ND		0.0100	1	12/06/2017 12:18	<a href="#">WG1048868</a>
Sodium,Dissolved	44.9		1.00	1	12/06/2017 12:18	<a href="#">WG1048868</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	12/05/2017 03:02	<a href="#">WG1049399</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	103		77.0-122		12/05/2017 03:02	<a href="#">WG1049399</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	12/02/2017 21:32	<a href="#">WG1048843</a>
Toluene	ND		0.00100	1	12/02/2017 21:32	<a href="#">WG1048843</a>
Ethylbenzene	ND		0.00100	1	12/02/2017 21:32	<a href="#">WG1048843</a>
Total Xylenes	ND		0.00300	1	12/02/2017 21:32	<a href="#">WG1048843</a>
(S) <i>Toluene-d8</i>	98.1		80.0-120		12/02/2017 21:32	<a href="#">WG1048843</a>





Collected date/time: 12/01/17 13:03

L954576

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

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
(S) Dibromofluoromethane	112		76.0-123		12/02/2017 21:32	<a href="#">WG1048843</a>
(S) a,a,a-Trifluorotoluene	94.6		80.0-120		12/02/2017 21:32	<a href="#">WG1048843</a>
(S) 4-Bromofluorobenzene	101		80.0-120		12/02/2017 21:32	<a href="#">WG1048843</a>

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
TPH (GC/FID) High Fraction	ND		0.100	1	12/06/2017 07:17	<a href="#">WG1049113</a>
(S) o-Terphenyl	78.0		31.0-160		12/06/2017 07:17	<a href="#">WG1049113</a>

<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

L954495-04 Original Sample (OS) • Duplicate (DUP)

(OS) L954495-04 12/06/17 10:05 • (DUP) R3271093-1 12/06/17 10:13

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	15.7	14.7	1	7.00	J	20

Sample Narrative:  
OS: Endpoint pH 4.5  
DUP: Endpoint pH 4.5

L954541-04 Original Sample (OS) • Duplicate (DUP)

(OS) L954541-04 12/06/17 12:09 • (DUP) R3271093-6 12/06/17 12:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Alkalinity	261	262	1	0.000		20

Sample Narrative:  
OS: Endpoint pH 4.5  
DUP: Endpoint pH 4.5

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

(LCS) R3271093-5 12/06/17 11:18 • (LCSD) R3271093-7 12/06/17 12:43

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Alkalinity	100	105	104	105	104	85.0-115			1.00	20

Sample Narrative:  
LCS: Endpoint pH 4.5  
LCSD: Endpoint pH 4.5

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



L954418-01 Original Sample (OS) • Duplicate (DUP)

(OS) L954418-01 12/02/17 15:15 • (DUP) R3269919-3 12/02/17 15:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	6.80	6.85	1	0.733		1

Sample Narrative:

OS: 6.8 at 7.9C

DUP: 6.85 at 8C



L954576-05 Original Sample (OS) • Duplicate (DUP)

(OS) L954576-05 12/02/17 15:15 • (DUP) R3269919-4 12/02/17 15:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.64	7.63	1	0.131		1

Sample Narrative:

OS: 7.64 at 12.4C

DUP: 7.63 at 12.5C

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

(LCS) R3269919-1 12/02/17 15:15 • (LCSD) R3269919-2 12/02/17 15:15

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	su	su	su	%	%	%			%	%
pH	5.96	6.02	6.02	101	101	98.3-102			0.000	1

Sample Narrative:

LCS: 6.02 at 17.9C

LCSD: 6.02 at 18C





Method Blank (MB)

(MB) WG1049056-1 12/03/17 16:17

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

<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

L953915-01 Original Sample (OS) • Duplicate (DUP)

(OS) L953915-01 12/03/17 16:17 • (DUP) WG1049056-4 12/03/17 16:17

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	276	276	1	0.000		20

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

(LCS) WG1049056-2 12/03/17 16:17 • (LCSD) WG1049056-3 12/03/17 16:17

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCSD Result umhos/cm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Specific Conductance	559	557	555	99.6	99.3	85.0-115			0.360	20



Method Blank (MB)

(MB) R3269905-1 12/02/17 06:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.0731	⌵	0.0519	1.00
Fluoride	U		0.0099	0.100
Nitrate	U		0.0227	0.100
Nitrite	U		0.0277	0.100
Sulfate	U		0.0774	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

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L954549-01 Original Sample (OS) • Duplicate (DUP)

(OS) L954549-01 12/02/17 12:42 • (DUP) R3269905-6 12/02/17 12:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	45.5	45.0	1	1		15
Fluoride	0.474	0.448	1	6		15
Nitrate	U	0.000	1	0		15
Nitrite	U	0.000	1	0		15
Sulfate	U	0.000	1	0		15

L954549-10 Original Sample (OS) • Duplicate (DUP)

(OS) L954549-10 12/02/17 15:52 • (DUP) R3269905-8 12/02/17 16:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	55.9	56.1	1	0		15
Fluoride	0.300	0.305	1	2		15
Nitrate	0.0534	0.0537	1	1	⌵	15
Nitrite	U	0.000	1	0		15
Sulfate	U	0.000	1	0		15

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

(LCS) R3269905-4 12/02/17 07:14 • (LCSD) R3269905-5 12/02/17 07:28

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 %
Chloride	40.0	39.7	39.9	99	100	80-120			1	15
Fluoride	8.00	7.99	7.95	100	99	80-120			0	15
Nitrate	8.00	8.31	8.29	104	104	80-120			0	15
Nitrite	8.00	8.00	7.99	100	100	80-120			0	15



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

(LCS) R3269905-4 12/02/17 07:14 • (LCSD) R3269905-5 12/02/17 07:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Sulfate	40.0	39.8	39.6	99	99	80-120			0	15

L954549-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L954549-04 12/02/17 14:13 • (MS) R3269905-7 12/02/17 14:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	50.0	95.9	141	91	1	80-120	E
Fluoride	5.00	0.249	4.61	87	1	80-120	
Nitrate	5.00	U	4.58	92	1	80-120	
Nitrite	5.00	U	4.77	95	1	80-120	
Sulfate	50.0	16.8	59.8	86	1	80-120	

L954549-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L954549-08 12/02/17 16:48 • (MS) R3269905-9 12/02/17 17:02 • (MSD) R3269905-10 12/02/17 17:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Nitrate	5.00	5.00	9.65	9.50	93	90	1	80-120			2	15
Nitrite	5.00	0.0699	4.91	4.89	97	96	1	80-120			0	15
Sulfate	50.0	12.7	56.5	56.7	88	88	1	80-120			0	15

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Method Blank (MB)

(MB) R3269941-1 12/02/17 11:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	U		0.079	1.00
Chloride	U		0.0519	1.00
Fluoride	U		0.0099	0.100
Nitrate	U		0.0227	0.100
Nitrite	U		0.0277	0.100
Sulfate	U		0.0774	5.00

L954559-01 Original Sample (OS) • Duplicate (DUP)

(OS) L954559-01 12/02/17 15:16 • (DUP) R3269941-4 12/02/17 15:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	0.000	1	0		15
Chloride	17.5	17.5	1	0		15
Fluoride	U	0.000	1	0		15
Nitrate	3.63	3.52	1	3		15
Nitrite	U	0.000	1	0		15
Sulfate	3.57	3.61	1	1	J	15

L954559-11 Original Sample (OS) • Duplicate (DUP)

(OS) L954559-11 12/02/17 18:27 • (DUP) R3269941-6 12/02/17 18:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	0.000	1	0		15
Chloride	16.6	16.5	1	0		15
Fluoride	U	0.000	1	0		15
Nitrate	0.216	0.211	1	2		15
Nitrite	U	0.000	1	0		15
Sulfate	20.2	20.3	1	0		15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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

(LCS) R3269941-2 12/02/17 11:19 • (LCSD) R3269941-3 12/02/17 11:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromide	40.0	39.2	39.3	98	98	80-120			0	15
Chloride	40.0	39.4	39.6	98	99	80-120			0	15
Fluoride	8.00	8.08	8.02	101	100	80-120			1	15
Nitrate	8.00	8.17	8.22	102	103	80-120			1	15
Nitrite	8.00	8.01	8.02	100	100	80-120			0	15
Sulfate	40.0	39.7	39.5	99	99	80-120			1	15

L954559-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L954559-08 12/02/17 17:33 • (MS) R3269941-5 12/02/17 17:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Bromide	50.0	U	47.5	95	1	80-120	
Chloride	50.0	28.4	77.1	98	1	80-120	
Fluoride	5.00	0.736	5.69	99	1	80-120	
Nitrate	5.00	0.240	5.02	96	1	80-120	
Nitrite	5.00	U	4.95	99	1	80-120	
Sulfate	50.0	99.8	145	91	1	80-120	E

L954559-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L954559-16 12/02/17 20:02 • (MS) R3269941-7 12/02/17 20:16 • (MSD) R3269941-8 12/02/17 20:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Bromide	50.0	U	51.0	48.4	102	97	1	80-120			5	15
Fluoride	5.00	U	5.26	5.54	105	111	1	80-120			5	15
Nitrate	5.00	U	5.06	4.75	101	95	1	80-120			6	15
Nitrite	5.00	U	5.15	4.96	103	99	1	80-120			4	15
Sulfate	50.0	0.509	51.9	52.8	103	105	1	80-120			2	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3270590-1 12/05/17 10:36

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Sulfate	U		0.0774	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

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L954824-07 Original Sample (OS) • Duplicate (DUP)

(OS) L954824-07 12/05/17 17:39 • (DUP) R3270590-7 12/05/17 18:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	ND	3.18	1	3	⌋	15

L954618-04 Original Sample (OS) • Duplicate (DUP)

(OS) L954618-04 12/05/17 22:33 • (DUP) R3270590-9 12/05/17 22:46

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	ND	2.42	1	0	⌋	15

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

(LCS) R3270590-2 12/05/17 10:50 • (LCSD) R3270590-3 12/05/17 11:03

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Sulfate	40.0	39.9	39.8	100	100	80-120			0	15

L954618-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L954618-04 12/05/17 22:33 • (MS) R3270590-5 12/05/17 15:39 • (MSD) R3270590-6 12/05/17 15:52

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfate	50.0	ND	52.5	53.0	100	101	1	80-120			1	15

L954824-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L954824-07 12/05/17 17:39 • (MS) R3270590-8 12/05/17 18:33

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Sulfate	50.0	ND	53.6	101	1	80-120	



Method Blank (MB)

(MB) R3271809-1 12/10/17 11:41

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Bromide	U		0.079	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

L956501-01 Original Sample (OS) • Duplicate (DUP)

(OS) L956501-01 12/10/17 18:10 • (DUP) R3271809-4 12/10/17 18:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Bromide	U	0.000	1	0		15

L956501-13 Original Sample (OS) • Duplicate (DUP)

(OS) L956501-13 12/10/17 22:25 • (DUP) R3271809-7 12/10/17 22:38

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Bromide	U	0.000	1	0		15

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

(LCS) R3271809-2 12/10/17 11:55 • (LCSD) R3271809-3 12/10/17 12:08

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Bromide	40.0	39.0	39.9	97.6	99.8	80-120			2.19	15

L956501-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L956501-01 12/10/17 18:10 • (MS) R3271809-5 12/10/17 18:37 • (MSD) R3271809-6 12/10/17 18:50

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Bromide	50.0	U	48.4	48.2	96.8	96.3	1	80-120			0.506	15

L956501-13 Original Sample (OS) • Matrix Spike (MS)

(OS) L956501-13 12/10/17 22:25 • (MS) R3271809-8 12/10/17 22:52

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Bromide	50.0	U	49.1	98.3	1	80-120	



Method Blank (MB)

(MB) R3270770-1 12/06/17 11:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium,Dissolved	U		0.0463	1.00
Iron,Dissolved	U		0.0141	0.100
Magnesium,Dissolved	0.0131	⌵	0.0111	1.00
Manganese,Dissolved	U		0.0012	0.0100
Potassium,Dissolved	U		0.102	1.00
Selenium,Dissolved	U		0.0074	0.0100
Sodium,Dissolved	U		0.0985	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

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

(LCS) R3270770-2 12/06/17 11:35 • (LCSD) R3270770-3 12/06/17 11:39

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 %
Calcium,Dissolved	10.0	9.76	9.67	98	97	80-120			1	20
Iron,Dissolved	10.0	9.79	9.72	98	97	80-120			1	20
Magnesium,Dissolved	10.0	10.0	10.0	100	100	80-120			0	20
Manganese,Dissolved	1.00	0.954	0.940	95	94	80-120			1	20
Potassium,Dissolved	10.0	9.69	9.63	97	96	80-120			1	20
Selenium,Dissolved	1.00	0.968	0.951	97	95	80-120			2	20
Sodium,Dissolved	10.0	9.68	9.58	97	96	80-120			1	20

L954725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L954725-01 12/06/17 11:42 • (MS) R3270770-5 12/06/17 11:48 • (MSD) R3270770-6 12/06/17 11:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium,Dissolved	10.0	49.8	59.3	59.3	95	95	1	75-125			0	20
Iron,Dissolved	10.0	U	9.70	9.76	97	98	1	75-125			1	20
Magnesium,Dissolved	10.0	7.11	16.8	16.9	97	98	1	75-125			1	20
Manganese,Dissolved	1.00	U	0.939	0.946	94	95	1	75-125			1	20
Potassium,Dissolved	10.0	1.62	11.2	11.3	96	97	1	75-125			1	20
Selenium,Dissolved	1.00	U	0.970	0.976	97	98	1	75-125			1	20
Sodium,Dissolved	10.0	24.1	33.3	33.5	92	94	1	75-125			0	20





Method Blank (MB)

(MB) R3270407-3 12/04/17 11:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-122

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

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

(LCS) R3270407-1 12/04/17 09:59 • (LCSD) R3270407-2 12/04/17 10:23

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 %
TPH (GC/FID) Low Fraction	5.50	6.04	5.90	110	107	71.0-136			2.39	20
(S) a,a,a-Trifluorotoluene(FID)				108	108	77.0-122				

L954576-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L954576-05 12/05/17 03:02 • (MS) R3270407-4 12/05/17 03:26 • (MSD) R3270407-5 12/05/17 03:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	2.58	2.66	46.4	47.7	1	18.0-160			2.80	20
(S) a,a,a-Trifluorotoluene(FID)					101	101		77.0-122				



Method Blank (MB)

(MB) R3269960-3 12/02/17 11:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	103			76.0-123
(S) a,a,a-Trifluorotoluene	101			80.0-120
(S) 4-Bromofluorobenzene	99.8			80.0-120

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

(LCS) R3269960-1 12/02/17 10:37 • (LCSD) R3269960-2 12/02/17 10:59

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 %
Benzene	0.0250	0.0269	0.0246	108	98.3	69.0-123			8.98	20
Ethylbenzene	0.0250	0.0270	0.0247	108	98.7	77.0-120			8.85	20
Toluene	0.0250	0.0263	0.0240	105	95.9	77.0-120			9.11	20
Xylenes, Total	0.0750	0.0826	0.0757	110	101	77.0-120			8.72	20
(S) Toluene-d8				101	100	80.0-120				
(S) Dibromofluoromethane				102	100	76.0-123				
(S) a,a,a-Trifluorotoluene				102	101	80.0-120				
(S) 4-Bromofluorobenzene				102	102	80.0-120				

<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) R3270764-1 12/06/17 00:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0518	⬇	0.0247	0.100
(S) o-Terphenyl	82.9			31.0-160

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

(LCS) R3270764-2 12/06/17 00:33 • (LCSD) R3270764-3 12/06/17 00:53

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 %
TPH (GC/FID) High Fraction	1.50	1.69	1.69	113	112	50.0-150			0.389	20
(S) o-Terphenyl				88.6	87.7	31.0-160				

<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



## 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.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, 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.
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.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

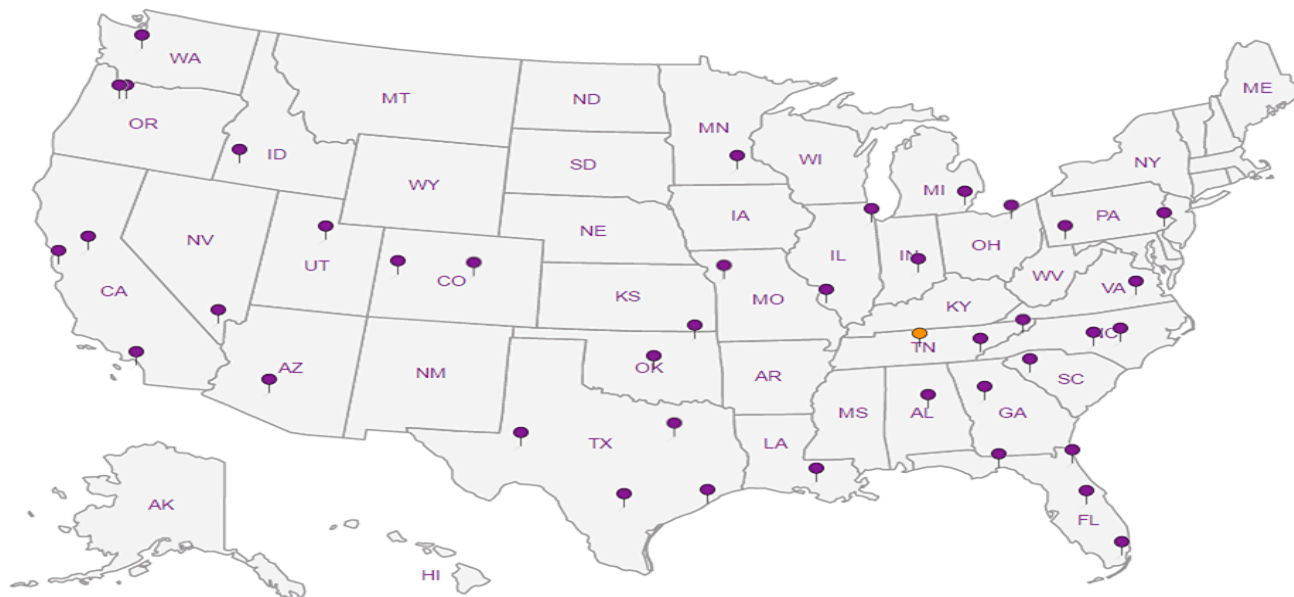


- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	IN00003		

## Our Locations



30 of 33

Company Name/Address:

**Entrada Consulting Group**240 Mesa Avenue  
Grand Junction, CO 81501

Billing Information:

Report to:

**Robert Stockton**

Email To:

**rstockton@entradainc.com**Project  
Description: **HCWTF**City/State  
Collected: **CO**Phone: **(970) 640-0568**  
Fax:Client Project #  
**017-013**

Lab Project #

Collected by (print):  
**Robert Stockton**Site/Facility ID #  
**HCWTF**P.O. #  
**017-013**

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Date Results Needed

Immediately  
Packed on Ice N ☐ Y ☒☐ Same Day .....200%  
☐ Next Day .....100%  
☐ Two Day .....50%  
☐ Three Day .....25%Email? ☐ No ☒ Yes  
FAX? ☒ No ☐ YesNo.  
of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260BTEX (2 - 40ml vials w/ HCL)	GRO (2 - 40ml vials w/ HCL)	DROLVI (2 - 40ml vials w/ HCL)	Dissolved metals (500 ml HDPE, no pres)***	Br, Cl, F, NO <sub>2</sub> , NO <sub>3</sub> , SO <sub>4</sub> (500 ml, no pres)	SPCON, pH, (500 ml HDPE, no pres)	Total Alkalinity (500 ml HDPE, no pres)	Chlorides, Sulfates	*** - Ca, Fe, Mg, Mn, K, Se, Na	Rem./Contaminant	Sample # (lab only)
BC	Grab	GW		12/1/2017	1500	9	X	X	X	X	X	X	X	X			-01
HC	Grab	GW			1435	9	X	X	X	X	X	X	X	X			02
Cabin	Grab	GW			1420	9	X	X	X	X	X	X	X	X			03
MW1	Grab	GW			1339	9	X	X	X	X	X	X	X	X			04
MW2	Grab	GW			1323	9	X	X	X	X	X	X	X	X			
MW-3	Grab	GW		12/1/17	1303	9	X	X	X	X	X	X	X	X			05

\* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Hold #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Samples returned via: ☐ UPS☒ FedEx ☐ Courier ☐ \_\_\_\_\_

Condition: (lab use only)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Temp: \_\_\_\_\_ °C Bottles Received:

Date: \_\_\_\_\_ Time: \_\_\_\_\_

COC Seal Intact: ☐ Y ☐ N ☒ NA

pH Checked:

NCF:

Chain of Custody Page 1 of 1



L.A.B. S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859L# **L954576**Tab **G192**

Acctnum:

Template:


Prelogin:

TSR:

Cooler:

Shipped Via:

# ESC LAB SCIENCES Cooler Receipt Form

Client:		ENTCONGSCO		SDG#	L954576	
Cooler Received/Opened On: 12/02/17				Temperature:	24	
Received by : Marina Fahmy						
Signature: 						

Receipt Check List			
	NP	Yes	No
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable		/	
VOA Zero headspace?			
Preservation Correct / Checked?		/	

**Andy Vann**

**ESC Lab Sciences**  
**Non-Conformance Form**

Login #: L954576	Client: ENTCONGICO	Date: 12/2/17	Evaluated by: Jeremy
------------------	--------------------	---------------	----------------------

**Non-Conformance (check applicable items)**

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	<input checked="" type="checkbox"/> Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Couri
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	<b>If no Chain of Custody:</b>
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pft:
		Carrier:
		Tracking#

**Login Comments: Did not receive MW-2**

Client informed by:	Call	Email	Voice Mail	Date: 12/04/17	Time:
TSR Initials: CSG	Client Contact: Robert Stockton				

**Login Instructions:**

Client notified of missing sample.

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