

**APPENDIX J-1**

**2017 ANALYTICAL DATA REPORTS AND DATA VALIDATION REVIEW MEMOS**

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L897427  
Samples Received: 03/22/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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<sup>8</sup> Al
<sup>9</sup> Sc

# SAMPLE SUMMARY



## SCS-2-032017 L897427-01 GW

Collected by  
Karsten Springstead      Collected date/time  
03/20/17 13:45      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963440	1	03/23/17 15:57	03/23/17 15:57	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 13:29	03/28/17 13:29	JHH

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

## MW-8-032017 L897427-02 GW

Collected by  
Karsten Springstead      Collected date/time  
03/20/17 14:20      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 13:49	03/28/17 13:49	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 14:54	03/29/17 14:54	BMB

## MW-9-032017 L897427-03 GW

Collected by  
Karsten Springstead      Collected date/time  
03/20/17 15:20      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963440	1	03/23/17 16:20	03/23/17 16:20	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 14:09	03/28/17 14:09	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 15:14	03/29/17 15:14	BMB

## R-MW-2-032117 L897427-04 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 09:05      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 14:29	03/28/17 14:29	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 15:35	03/29/17 15:35	BMB

## R-MW-3-032117 L897427-05 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 09:50      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963440	1	03/23/17 16:42	03/23/17 16:42	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 14:49	03/28/17 14:49	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 15:55	03/29/17 15:55	BMB

## R-MW-6-032117 L897427-06 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 11:30      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963291	1	03/23/17 10:36	03/23/17 10:36	AMC
Wet Chemistry by Method 9056A	WG963216	1	03/22/17 22:20	03/22/17 22:20	SAM
Wet Chemistry by Method 9056A	WG964054	5	03/27/17 16:29	03/27/17 16:29	KCF
Wet Chemistry by Method 9060A	WG963248	1	03/25/17 00:57	03/25/17 00:57	SJM
Metals (ICPMS) by Method 6020	WG963750	1	03/24/17 09:22	03/24/17 12:21	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963440	1	03/23/17 17:04	03/23/17 17:04	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG963229	1	03/22/17 21:24	03/22/17 21:24	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG963506	20	03/23/17 11:23	03/23/17 11:23	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 15:09	03/28/17 15:09	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 16:15	03/29/17 16:15	BMB



# SAMPLE SUMMARY



## MW116-032117 L897427-07 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 12:36      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963291	1	03/23/17 10:51	03/23/17 10:51	AMC
Wet Chemistry by Method 9056A	WG963216	1	03/22/17 22:51	03/22/17 22:51	SAM
Wet Chemistry by Method 9060A	WG963248	1	03/25/17 01:10	03/25/17 01:10	SJM
Metals (ICPMS) by Method 6020	WG963750	1	03/24/17 09:22	03/24/17 13:16	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963229	1	03/22/17 21:58	03/22/17 21:58	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG963506	40	03/23/17 11:40	03/23/17 11:40	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 15:29	03/28/17 15:29	JHH

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## J5-032117 L897427-08 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 14:00      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963291	1	03/23/17 09:26	03/23/17 09:26	AMC
Wet Chemistry by Method 9056A	WG963216	1	03/22/17 23:06	03/22/17 23:06	SAM
Wet Chemistry by Method 9060A	WG963248	1	03/25/17 01:37	03/25/17 01:37	SJM
Metals (ICPMS) by Method 6020	WG963750	1	03/24/17 09:22	03/24/17 13:20	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963229	1	03/22/17 22:31	03/22/17 22:31	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG963578	20	03/23/17 13:20	03/23/17 13:20	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 15:49	03/28/17 15:49	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	10	03/29/17 16:35	03/29/17 16:35	BMB

## K8-032117 L897427-09 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 15:00      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963291	1	03/23/17 08:52	03/23/17 08:52	AMC
Wet Chemistry by Method 9056A	WG963216	1	03/22/17 23:22	03/22/17 23:22	SAM
Wet Chemistry by Method 9060A	WG963248	1	03/25/17 01:51	03/25/17 01:51	SJM
Metals (ICPMS) by Method 6020	WG963750	1	03/24/17 09:22	03/24/17 13:23	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963229	1	03/22/17 22:48	03/22/17 22:48	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 16:09	03/28/17 16:09	JHH

## TRIP BLANK L897427-10 GW

Collected by  
Karsten Springstead      Collected date/time  
03/21/17 00:00      Received date/time  
03/22/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963440	1	03/23/17 14:06	03/23/17 14:06	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 12:49	03/28/17 12:49	JHH



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.

Brian Ford  
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



## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1660		31.6	100	1	03/23/2017 15:57	WG963440
(S) a,a,a-Trifluorotoluene(FID)	94.2			77.0-122		03/23/2017 15:57	WG963440

1 Cp

2 Tc

3 Ss

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	78.8		1.05	25.0	1	03/28/2017 13:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:29	WG964116
Benzene	51.8		0.0896	0.500	1	03/28/2017 13:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 13:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 13:29	WG964116
n-Butylbenzene	2.49		0.143	0.500	1	03/28/2017 13:29	WG964116
sec-Butylbenzene	2.02		0.134	0.500	1	03/28/2017 13:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:29	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 13:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 13:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 13:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 13:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:29	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:29	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:29	WG964116
Di-isopropyl ether	1.41		0.0924	0.500	1	03/28/2017 13:29	WG964116
Ethylbenzene	155	J4	0.158	0.500	1	03/28/2017 13:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:29	WG964116
n-Hexane	3.96		0.305	1.00	1	03/28/2017 13:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 13:29	WG964116
Isopropylbenzene	19.0		0.126	0.500	1	03/28/2017 13:29	WG964116
p-Isopropyltoluene	0.379	J	0.138	0.500	1	03/28/2017 13:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:29	WG964116

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/20/17 13:45

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:29	WG964116
Naphthalene	61.8	<u>J0</u>	0.174	0.500	1	03/28/2017 13:29	WG964116
n-Propylbenzene	43.9		0.162	0.500	1	03/28/2017 13:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 13:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:29	WG964116
Toluene	9.54		0.412	1.00	1	03/28/2017 13:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:29	WG964116
1,2,4-Trimethylbenzene	60.3		0.123	0.500	1	03/28/2017 13:29	WG964116
1,2,3-Trimethylbenzene	59.3		0.0739	0.500	1	03/28/2017 13:29	WG964116
1,3,5-Trimethylbenzene	5.36		0.124	0.500	1	03/28/2017 13:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:29	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:29	WG964116
Xylenes, Total	181	<u>J4</u>	0.316	1.50	1	03/28/2017 13:29	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 13:29	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 13:29	WG964116
(S) 4-Bromofluorobenzene	98.7			80.0-120		03/28/2017 13:29	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.68	<u>B J</u>	1.05	25.0	1	03/28/2017 13:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
Benzene	0.145	<u>J</u>	0.0896	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:49	<a href="#">WG964116</a>
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Ethylbenzene	0.175	<u>J J4</u>	0.158	0.500	1	03/29/2017 14:54	<a href="#">WG964116</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:49	<a href="#">WG964116</a>
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
n-Hexane	U		0.305	1.00	1	03/28/2017 13:49	<a href="#">WG964116</a>
Iodomethane	U		0.377	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:49	<a href="#">WG964116</a>
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
Naphthalene	0.195	<u>B J</u>	0.174	0.500	1	03/29/2017 14:54	<a href="#">WG964116</a>
n-Propylbenzene	U		0.162	0.500	1	03/29/2017 14:54	<a href="#">WG964116</a>
Styrene	U		0.117	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:49	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:49	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 13:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:49	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/29/2017 14:54	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/29/2017 14:54	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 13:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/29/2017 14:54	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 13:49	WG964116
(S) Toluene-d8	112			80.0-120		03/29/2017 14:54	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 13:49	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 14:54	WG964116
(S) 4-Bromofluorobenzene	99.5			80.0-120		03/28/2017 13:49	WG964116
(S) 4-Bromofluorobenzene	102			80.0-120		03/29/2017 14:54	WG964116

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



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	52.8	J	31.6	100	1	03/23/2017 16:20	WG963440
(S) a,a,a-Trifluorotoluene(FID)	96.3			77.0-122		03/23/2017 16:20	WG963440

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	4.08	B J	1.05	25.0	1	03/28/2017 14:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:09	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 14:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 14:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 14:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 14:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 14:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 14:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 14:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:09	WG964116
cis-1,2-Dichloroethene	0.140	J	0.0933	0.500	1	03/28/2017 14:09	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 14:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:09	WG964116
n-Hexane	0.311	J	0.305	1.00	1	03/28/2017 14:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 14:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:09	WG964116





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:09	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:14	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 14:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:09	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 14:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:09	WG964116
Vinyl chloride	0.324	J	0.118	0.500	1	03/28/2017 14:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:09	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 14:09	WG964116
(S) Toluene-d8	112			80.0-120		03/29/2017 15:14	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 14:09	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 15:14	WG964116
(S) 4-Bromofluorobenzene	96.5			80.0-120		03/28/2017 14:09	WG964116
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 15:14	WG964116

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



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.29	<u>B</u> <u>J</u>	1.05	25.0	1	03/28/2017 14:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:29	WG964116
Benzene	0.272	<u>J</u>	0.0896	0.500	1	03/28/2017 14:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 14:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 14:29	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:29	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:29	WG964116
Chlorobenzene	U	<u>J</u> <u>4</u>	0.140	0.500	1	03/28/2017 14:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 14:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 14:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 14:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:29	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:29	WG964116
cis-1,2-Dichloroethene	0.341	<u>J</u>	0.0933	0.500	1	03/28/2017 14:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:29	WG964116
Ethylbenzene	U	<u>J</u> <u>4</u>	0.158	0.500	1	03/28/2017 14:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 14:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 14:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:29	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:35	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:29	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/21/17 09:05

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 14:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 14:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:29	WG964116
Vinyl chloride	0.522		0.118	0.500	1	03/28/2017 14:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:29	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 14:29	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 15:35	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 15:35	WG964116
(S) Dibromofluoromethane	107			76.0-123		03/28/2017 14:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 14:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/29/2017 15:35	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/21/17 09:50

L897427

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/23/2017 16:42	WG963440
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-122		03/23/2017 16:42	WG963440

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	14.3	<u>B J</u>	1.05	25.0	1	03/28/2017 14:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:49	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 14:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 14:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 14:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:49	WG964116
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 14:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:49	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 14:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 14:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 14:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:49	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:49	WG964116
cis-1,2-Dichloroethene	0.575		0.0933	0.500	1	03/28/2017 14:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:49	WG964116
Ethylbenzene	U	<u>J4</u>	0.158	0.500	1	03/28/2017 14:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 14:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 14:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:49	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:49	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:55	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:49	WG964116
Tetrachloroethene	1.38		0.199	0.500	1	03/28/2017 14:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:49	WG964116
Trichloroethene	0.714		0.153	0.500	1	03/28/2017 14:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 14:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:49	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 15:55	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 14:49	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 14:49	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 15:55	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 14:49	WG964116
(S) 4-Bromofluorobenzene	102			80.0-120		03/29/2017 15:55	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	586000		2710	20000	1	03/23/2017 10:36	<a href="#">WG963291</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	5720		51.9	1000	1	03/22/2017 22:20	<a href="#">WG963216</a>
Nitrate	191		22.7	100	1	03/22/2017 22:20	<a href="#">WG963216</a>
Sulfate	119000		387	25000	5	03/27/2017 16:29	<a href="#">WG964054</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6280		102	1000	1	03/25/2017 00:57	<a href="#">WG963248</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5020		15.0	100	1	03/24/2017 12:21	<a href="#">WG963750</a>
Manganese	6240	<u>V</u>	0.250	5.00	1	03/24/2017 12:21	<a href="#">WG963750</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	42.8	<u>J</u>	31.6	100	1	03/23/2017 17:04	<a href="#">WG963440</a>
(S) a,a,a-Trifluorotoluene(FID)	96.7			77.0-122		03/23/2017 17:04	<a href="#">WG963440</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	9410		5.74	13.6	20	03/23/2017 11:23	<a href="#">WG963506</a>
Ethane	U		0.296	1.29	1	03/22/2017 21:24	<a href="#">WG963229</a>
Ethene	U		0.422	1.27	1	03/22/2017 21:24	<a href="#">WG963229</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.14	<u>B J</u>	1.05	25.0	1	03/28/2017 15:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:09	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>
Chloroethane	0.977		0.141	0.500	1	03/28/2017 15:09	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/21/17 11:30

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 15:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 15:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 15:09	WG964116
cis-1,2-Dichloroethene	20.0		0.0933	0.500	1	03/28/2017 15:09	WG964116
trans-1,2-Dichloroethene	0.242	J	0.152	0.500	1	03/28/2017 15:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 15:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 15:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:09	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 16:15	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 15:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:09	WG964116
Tetrachloroethene	1.08		0.199	0.500	1	03/28/2017 15:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 15:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:09	WG964116
Trichloroethene	3.17		0.153	0.500	1	03/28/2017 15:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:09	WG964116
Vinyl chloride	8.65		0.118	0.500	1	03/28/2017 15:09	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Xylenes, Total	U	<u>J4</u>	0.316	1.50	1	03/28/2017 15:09	<a href="#">WG964116</a>
(S) Toluene-d8	110			80.0-120		03/28/2017 15:09	<a href="#">WG964116</a>
(S) Toluene-d8	110			80.0-120		03/29/2017 16:15	<a href="#">WG964116</a>
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 15:09	<a href="#">WG964116</a>
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 16:15	<a href="#">WG964116</a>
(S) 4-Bromofluorobenzene	99.6			80.0-120		03/28/2017 15:09	<a href="#">WG964116</a>
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 16:15	<a href="#">WG964116</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	432000		2710	20000	1	03/23/2017 10:51	<a href="#">WG963291</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22000		51.9	1000	1	03/22/2017 22:51	<a href="#">WG963216</a>
Nitrate	U		22.7	100	1	03/22/2017 22:51	<a href="#">WG963216</a>
Sulfate	25700		77.4	5000	1	03/22/2017 22:51	<a href="#">WG963216</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7340		102	1000	1	03/25/2017 01:10	<a href="#">WG963248</a>

## Metals (ICPMS) by Method 6020

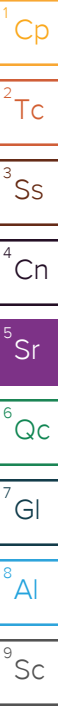
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	6010		15.0	100	1	03/24/2017 13:16	<a href="#">WG963750</a>
Manganese	869		0.250	5.00	1	03/24/2017 13:16	<a href="#">WG963750</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	8590		11.5	27.1	40	03/23/2017 11:40	<a href="#">WG963506</a>
Ethane	U		0.296	1.29	1	03/22/2017 21:58	<a href="#">WG963229</a>
Ethene	U		0.422	1.27	1	03/22/2017 21:58	<a href="#">WG963229</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.32	<b>B J</b>	1.05	25.0	1	03/28/2017 15:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:29	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chlorobenzene	U	<b>J4</b>	0.140	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 15:29	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 15:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 15:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 15:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 15:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 15:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 15:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 15:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 15:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:29	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 15:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 15:29	WG964116
(S) Toluene-d8	112			80.0-120		03/28/2017 15:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 15:29	WG964116
(S) 4-Bromofluorobenzene	99.2			80.0-120		03/28/2017 15:29	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	53400		2710	20000	1	03/23/2017 09:26	<a href="#">WG963291</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	28000		51.9	1000	1	03/22/2017 23:06	<a href="#">WG963216</a>
Nitrate	58.4	J P1	22.7	100	1	03/22/2017 23:06	<a href="#">WG963216</a>
Sulfate	16300		77.4	5000	1	03/22/2017 23:06	<a href="#">WG963216</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4100		102	1000	1	03/25/2017 01:37	<a href="#">WG963248</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1090		15.0	100	1	03/24/2017 13:20	<a href="#">WG963750</a>
Manganese	474		0.250	5.00	1	03/24/2017 13:20	<a href="#">WG963750</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2370		5.74	13.6	20	03/23/2017 13:20	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/22/2017 22:31	<a href="#">WG963229</a>
Ethene	29.4		0.422	1.27	1	03/22/2017 22:31	<a href="#">WG963229</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.24	B J	1.05	25.0	1	03/28/2017 15:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:49	<a href="#">WG964116</a>
Benzene	0.580		0.0896	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:49	<a href="#">WG964116</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloroethene	0.453	J	0.188	0.500	1	03/28/2017 15:49	WG964116
cis-1,2-Dichloroethene	253		0.933	5.00	10	03/29/2017 16:35	WG964116
trans-1,2-Dichloroethene	1.73		0.152	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 15:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 15:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 15:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 15:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:49	WG964116
Tetrachloroethene	285		1.99	5.00	10	03/29/2017 16:35	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 15:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:49	WG964116
Trichloroethene	78.5		0.153	0.500	1	03/28/2017 15:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:49	WG964116
Vinyl chloride	29.6		0.118	0.500	1	03/28/2017 15:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 15:49	WG964116
(S) Toluene-d8	108			80.0-120		03/28/2017 15:49	WG964116
(S) Toluene-d8	109			80.0-120		03/29/2017 16:35	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/29/2017 16:35	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 15:49	WG964116
(S) 4-Bromofluorobenzene	99.0			80.0-120		03/28/2017 15:49	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 16:35	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	70300		2710	20000	1	03/23/2017 08:52	<a href="#">WG963291</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10100		51.9	1000	1	03/22/2017 23:22	<a href="#">WG963216</a>
Nitrate	103		22.7	100	1	03/22/2017 23:22	<a href="#">WG963216</a>
Sulfate	27200		77.4	5000	1	03/22/2017 23:22	<a href="#">WG963216</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	5930		102	1000	1	03/25/2017 01:51	<a href="#">WG963248</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	62.2	J	15.0	100	1	03/24/2017 13:23	<a href="#">WG963750</a>
Manganese	242		0.250	5.00	1	03/24/2017 13:23	<a href="#">WG963750</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	41.4		0.287	0.678	1	03/22/2017 22:48	<a href="#">WG963229</a>
Ethane	U		0.296	1.29	1	03/22/2017 22:48	<a href="#">WG963229</a>
Ethene	U		0.422	1.27	1	03/22/2017 22:48	<a href="#">WG963229</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.26	B J	1.05	25.0	1	03/28/2017 16:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:09	<a href="#">WG964116</a>
Benzene	0.239	J	0.0896	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:09	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	03/28/2017 16:09	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:09	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/21/17 15:00

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:09	WG964116
1,1-Dichloroethene	1.47		0.188	0.500	1	03/28/2017 16:09	WG964116
cis-1,2-Dichloroethene	123		0.0933	0.500	1	03/28/2017 16:09	WG964116
trans-1,2-Dichloroethene	0.680		0.152	0.500	1	03/28/2017 16:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 16:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 16:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 16:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 16:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 16:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 16:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:09	WG964116
Tetrachloroethene	82.5		0.199	0.500	1	03/28/2017 16:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 16:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:09	WG964116
Trichloroethene	22.0		0.153	0.500	1	03/28/2017 16:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:09	WG964116
Vinyl chloride	0.461	J	0.118	0.500	1	03/28/2017 16:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:09	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 16:09	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 16:09	WG964116
(S) 4-Bromofluorobenzene	102			80.0-120		03/28/2017 16:09	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 03/21/17 00:00

L897427

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/23/2017 14:06	WG963440
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-122		03/23/2017 14:06	WG963440

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.70	<u>B J</u>	1.05	25.0	1	03/28/2017 12:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 12:49	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 12:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 12:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 12:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 12:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 12:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 12:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 12:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 12:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 12:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 12:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 12:49	WG964116
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 12:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 12:49	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 12:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 12:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 12:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 12:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 12:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 12:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 12:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 12:49	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 12:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 12:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 12:49	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 12:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 12:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 12:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 12:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 12:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 12:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 12:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 12:49	WG964116
Ethylbenzene	U	<u>J4</u>	0.158	0.500	1	03/28/2017 12:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 12:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 12:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 12:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 12:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 12:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 12:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 12:49	WG964116



Collected date/time: 03/21/17 00:00

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 12:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 12:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 12:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 12:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 12:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 12:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 12:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 12:49	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 12:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 12:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 12:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 12:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 12:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 12:49	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 12:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 12:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 12:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 12:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 12:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 12:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 12:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 12:49	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 12:49	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 12:49	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 12:49	WG964116

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



Method Blank (MB)

(MB) R3205313-2 03/23/17 07:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	2760	J	2710	20000

<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

L897450-09 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-09 03/23/17 10:12 • (DUP) R3205313-9 03/23/17 10:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	510000	510000	1	0.000		20

L897427-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-06 03/23/17 10:36 • (DUP) R3205313-12 03/23/17 10:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	586000	597000	1	2.00		20

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

(LCS) R3205313-4 03/23/17 09:00 • (LCSD) R3205313-11 03/23/17 10:26

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	97900	105000	98.0	105	85.0-115			7.00	20



Method Blank (MB)

(MB) R3205611-1 03/22/17 19:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897427-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-06 03/22/17 22:20 • (DUP) R3205611-4 03/22/17 22:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	5720	5770	1	1		15
Nitrate	191	195	1	2		15

L897427-08 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-08 03/22/17 23:06 • (DUP) R3205611-6 03/23/17 10:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	28000	28100	1	0		15
Nitrate	58.4	0.000	1	200	P1	15
Sulfate	16300	17300	1	6		15

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

(LCS) R3205611-2 03/22/17 19:30 • (LCSD) R3205611-3 03/22/17 19:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39100	39000	98	97	80-120			0	15
Nitrate	8000	8080	8070	101	101	80-120			0	15
Sulfate	40000	38500	38300	96	96	80-120			0	15

L897427-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L897427-09 03/22/17 23:22 • (MS) R3205611-5 03/22/17 23:37

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	10100	60500	101	1	80-120	
Nitrate	5000	103	5080	100	1	80-120	
Sulfate	50000	27200	76800	99	1	80-120	



L897590-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897590-03 03/23/17 12:23 • (MS) R3205611-7 03/23/17 15:59 • (MSD) R3205611-8 03/23/17 16:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Nitrate	5000	ND	4740	4850	95	97	1	80-120			2	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) R3206307-1 03/27/17 15:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897835-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897835-02 03/27/17 16:40 • (DUP) R3206307-4 03/27/17 16:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	76400	77000	1	1		15

L897900-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897900-03 03/27/17 18:31 • (DUP) R3206307-6 03/27/17 18:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	ND	2500	1	0		15

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

(LCS) R3206307-2 03/27/17 15:22 • (LCSD) R3206307-3 03/27/17 15:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	40100	40400	100	101	80-120			1	15

L897835-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897835-03 03/27/17 17:00 • (MS) R3206307-5 03/27/17 17:30

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	84800	133000	97	1	80-120	E

L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/27/17 20:23 • (MS) R3206307-7 03/27/17 20:33 • (MSD) R3206307-8 03/27/17 20:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	12700	67800	67600	110	110	1	80-120			0	15



Method Blank (MB)

(MB) R3206005-1 03/24/17 16:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

<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

L897328-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897328-01 03/24/17 18:05 • (DUP) R3206005-3 03/24/17 18:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	271	189	1	36	J P1	20

L897427-07 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-07 03/25/17 01:10 • (DUP) R3206005-7 03/25/17 01:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	7340	7450	1	1		20

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

(LCS) R3206005-2 03/24/17 17:30 • (LCSD) R3206005-4 03/24/17 19:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74000	74700	99	100	85-115			1	20

L897389-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897389-02 03/24/17 19:33 • (MS) R3206005-5 03/24/17 20:52 • (MSD) R3206005-6 03/24/17 21:10

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	3700	51400	52100	95	97	1	80-120			1	20





Method Blank (MB)

(MB) R3205761-1 03/24/17 12:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	0.286	J	0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3205761-2 03/24/17 12:14 • (LCSD) R3205761-3 03/24/17 12:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4970	4840	99	97	80-120			3	20
Manganese	50.0	47.7	47.8	95	96	80-120			0	20

5 Sr

6 Qc

L897427-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897427-06 03/24/17 12:21 • (MS) R3205761-5 03/24/17 12:28 • (MSD) R3205761-6 03/24/17 12:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	5020	9780	9770	95	95	1	75-125			0	20
Manganese	50.0	6240	6260	6230	47	0	1	75-125	V	V	1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3205642-3 03/23/17 13:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	94.7			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3205642-1 03/23/17 12:26 • (LCSD) R3205642-2 03/23/17 12:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5450	5570	99.1	101	72.0-134			2.18	20
(S) a,a,a-Trifluorotoluene(FID)				106	106	77.0-122				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3205283-1 03/22/17 18:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L897450-09 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-09 03/22/17 23:54 • (DUP) R3205283-2 03/23/17 00:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	34.6	34.8	1	0.690		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

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

(LCS) R3205283-3 03/23/17 00:44 • (LCSD) R3205283-4 03/23/17 01:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	62.8	63.8	92.7	94.2	70.0-130			1.60	20
Ethane	129	112	115	86.5	89.2	70.0-130			3.08	20
Ethene	127	110	113	86.8	88.7	70.0-130			2.17	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3205374-1 03/23/17 10:17

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

L897427-07 Original Sample (OS) • Duplicate (DUP)

(OS) L897427-07 03/23/17 11:40 • (DUP) R3205374-2 03/23/17 11:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	8590	8760	40	1.90		20

<sup>6</sup> Qc

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

(LCS) R3205374-3 03/23/17 12:13 • (LCSD) R3205374-4 03/23/17 12:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	64.7	63.6	95.4	93.8	70.0-130			1.75	20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3205647-1 03/23/17 12:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

L897590-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-02 03/23/17 13:36 • (DUP) R3205647-2 03/23/17 16:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

<sup>6</sup> Qc

L897590-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-05 03/23/17 17:04 • (DUP) R3205647-3 03/23/17 18:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	2090	238	1	159		20

<sup>7</sup> Gl

<sup>8</sup> Al

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

(LCS) R3205647-4 03/23/17 19:51 • (LCSD) R3205647-5 03/24/17 09:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	63.7	66.4	94.0	97.9	70.0-130			4.03	20

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	2.11	J	1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3206693-3 03/28/17 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.204	J	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	0.255	J	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	111			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	102			80.0-120

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) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	153	165	123	132	10.0-160			7.11	23
Acrylonitrile	125	123	131	98.5	105	60.0-142			6.50	20
Benzene	25.0	20.2	21.6	81.0	86.4	69.0-123			6.50	20
Bromobenzene	25.0	20.3	22.5	81.4	90.2	79.0-120			10.3	20
Bromodichloromethane	25.0	22.6	24.1	90.6	96.2	76.0-120			6.03	20
Bromochloromethane	25.0	20.2	21.3	80.7	85.3	76.0-122			5.62	20
Bromoform	25.0	19.9	21.6	79.5	86.4	67.0-132			8.22	20
Bromomethane	25.0	24.0	24.1	95.8	96.5	18.0-160			0.760	20
n-Butylbenzene	25.0	22.0	23.5	87.9	94.0	72.0-126			6.66	20
sec-Butylbenzene	25.0	20.0	21.7	80.0	86.7	74.0-121			8.07	20
tert-Butylbenzene	25.0	20.0	21.9	80.1	87.7	75.0-122			9.10	20
Carbon disulfide	25.0	17.9	18.8	71.8	75.1	55.0-127			4.53	20
Carbon tetrachloride	25.0	21.0	22.6	84.0	90.4	63.0-122			7.38	20
Chlorobenzene	25.0	19.7	21.5	78.7	86.1	79.0-121	J4		9.01	20
Chlorodibromomethane	25.0	21.1	23.0	84.3	92.2	75.0-125			8.84	20
Chloroethane	25.0	24.6	25.8	98.5	103	47.0-152			4.82	20
2-Chloroethyl vinyl ether	125	137	147	109	118	10.0-160			7.24	22
Chloroform	25.0	21.7	23.0	86.9	92.2	72.0-121			5.95	20
Chloromethane	25.0	24.6	24.4	98.2	97.7	48.0-139			0.560	20
2-Chlorotoluene	25.0	20.2	22.4	80.9	89.5	74.0-122			10.1	20
4-Chlorotoluene	25.0	20.5	22.6	81.8	90.4	79.0-120			9.96	20
1,2-Dibromo-3-Chloropropane	25.0	18.2	19.3	73.0	77.4	64.0-127			5.86	20
1,2-Dibromoethane	25.0	20.1	21.8	80.5	87.2	77.0-123			7.94	20
Dibromomethane	25.0	22.3	23.4	89.3	93.6	78.0-120			4.76	20
1,2-Dichlorobenzene	25.0	20.6	22.1	82.3	88.2	80.0-120			6.90	20
1,3-Dichlorobenzene	25.0	19.3	20.9	77.1	83.5	72.0-123			7.88	20
1,4-Dichlorobenzene	25.0	20.1	22.0	80.3	88.1	77.0-120			9.24	20
Dichlorodifluoromethane	25.0	27.2	24.6	109	98.2	49.0-155			10.2	20
1,1-Dichloroethane	25.0	22.4	23.7	89.4	94.8	70.0-126			5.84	20
1,2-Dichloroethane	25.0	23.9	25.1	95.7	100	67.0-126			4.63	20
1,1-Dichloroethene	25.0	21.9	22.7	87.6	90.8	64.0-129			3.64	20
cis-1,2-Dichloroethene	25.0	21.0	22.4	83.8	89.6	73.0-120			6.65	20
trans-1,2-Dichloroethene	25.0	19.7	20.6	79.0	82.3	71.0-121			4.15	20
1,2-Dichloropropane	25.0	22.9	25.3	91.8	101	75.0-125			9.66	20
1,1-Dichloropropene	25.0	21.0	22.7	84.1	90.6	71.0-129			7.53	20
1,3-Dichloropropane	25.0	21.0	22.4	84.0	89.8	80.0-121			6.70	20
cis-1,3-Dichloropropene	25.0	24.3	25.6	97.1	102	79.0-123			5.13	20
trans-1,3-Dichloropropene	25.0	23.5	25.4	94.1	102	74.0-127			7.77	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.7	82.6	86.7	55.0-134			4.88	20
2,2-Dichloropropane	25.0	22.5	24.4	89.9	97.7	60.0-125			8.39	20

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) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	24.5	26.8	97.9	107	59.0-133			9.12	20
Ethylbenzene	25.0	19.1	20.8	76.3	83.4	77.0-120	J4		8.88	20
Hexachloro-1,3-butadiene	25.0	19.7	21.5	78.7	86.0	64.0-131			8.79	20
2-Hexanone	125	129	138	103	110	58.0-147			6.93	20
n-Hexane	25.0	18.1	19.2	72.5	76.7	56.0-124			5.68	20
Iodomethane	125	124	130	99.6	104	57.0-140			4.14	20
Isopropylbenzene	25.0	19.9	22.1	79.8	88.2	75.0-120			10.1	20
p-Isopropyltoluene	25.0	20.3	22.0	81.2	88.0	74.0-126			8.10	20
2-Butanone (MEK)	125	147	155	117	124	37.0-158			5.35	20
Methylene Chloride	25.0	19.4	20.7	77.4	82.9	66.0-121			6.86	20
4-Methyl-2-pentanone (MIBK)	125	150	159	120	127	59.0-143			5.43	20
Methyl tert-butyl ether	25.0	23.6	25.4	94.5	101	64.0-123			7.18	20
Naphthalene	25.0	18.2	19.8	72.8	79.3	62.0-128			8.60	20
n-Propylbenzene	25.0	20.3	22.4	81.2	89.4	79.0-120			9.70	20
Styrene	25.0	21.2	23.1	84.7	92.6	78.0-124			8.85	20
1,1,1,2-Tetrachloroethane	25.0	20.8	22.5	83.0	90.0	75.0-122			8.03	20
1,1,2,2-Tetrachloroethane	25.0	20.1	22.0	80.6	87.9	71.0-122			8.68	20
1,1,2-Trichlorotrifluoroethane	25.0	23.5	24.9	94.2	99.7	61.0-136			5.67	20
Tetrachloroethene	25.0	19.0	20.7	76.1	82.8	70.0-127			8.45	20
Toluene	25.0	20.2	21.4	80.8	85.7	77.0-120			5.88	20
1,2,3-Trichlorobenzene	25.0	17.2	19.0	68.7	75.9	61.0-133			9.91	20
1,2,4-Trichlorobenzene	25.0	18.9	19.9	75.7	79.7	69.0-129			5.10	20
1,1,1-Trichloroethane	25.0	22.1	23.7	88.2	94.9	68.0-122			7.33	20
1,1,2-Trichloroethane	25.0	19.8	21.4	79.4	85.8	78.0-120			7.72	20
Trichloroethene	25.0	20.6	21.5	82.6	86.0	78.0-120			4.03	20
Trichlorofluoromethane	25.0	26.2	26.7	105	107	56.0-137			1.58	20
1,2,3-Trichloropropane	25.0	20.6	22.2	82.3	88.9	72.0-124			7.68	20
1,2,4-Trimethylbenzene	25.0	20.3	22.1	81.3	88.4	75.0-120			8.40	20
1,2,3-Trimethylbenzene	25.0	21.1	22.7	84.3	91.0	75.0-120			7.58	20
1,3,5-Trimethylbenzene	25.0	20.1	21.9	80.4	87.5	75.0-120			8.49	20
Vinyl acetate	125	139	149	111	119	46.0-160			6.86	20
Vinyl chloride	25.0	27.2	26.7	109	107	64.0-133			2.02	20
Xylenes, Total	75.0	56.9	62.9	75.9	83.9	77.0-120	J4		10.0	20
(S) Toluene-d8				110	110	80.0-120				
(S) Dibromofluoromethane				104	104	76.0-123				
(S) 4-Bromofluorobenzene				97.6	99.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	3.09	86.2	89.9	66.5	69.5	1	10.0-139			4.23	25
Acrylonitrile	125	U	153	153	122	122	1	46.0-159			0.0900	23
Benzene	25.0	U	24.1	23.1	96.4	92.3	1	34.0-147			4.35	20
Bromobenzene	25.0	U	25.0	23.7	100	94.6	1	51.0-137			5.55	20
Bromodichloromethane	25.0	U	27.2	26.1	109	105	1	52.0-135			3.82	20
Bromochloromethane	25.0	U	25.7	23.2	103	93.0	1	53.0-138			10.0	20
Bromoform	25.0	U	26.0	25.6	104	102	1	50.0-146			1.53	20
Bromomethane	25.0	U	26.4	24.1	106	96.3	1	10.0-160			9.34	23
n-Butylbenzene	25.0	U	25.5	25.5	102	102	1	50.0-144			0.0200	20
sec-Butylbenzene	25.0	U	24.3	23.3	97.1	93.4	1	48.0-143			3.92	20
tert-Butylbenzene	25.0	U	24.3	23.4	97.1	93.7	1	50.0-142			3.54	20
Carbon disulfide	25.0	U	20.2	18.6	80.7	74.5	1	10.0-147			8.03	20
Carbon tetrachloride	25.0	U	25.5	24.5	102	97.9	1	41.0-138			4.30	20
Chlorobenzene	25.0	U	23.9	22.5	95.4	89.9	1	52.0-141			5.93	20
Chlorodibromomethane	25.0	U	25.8	24.8	103	99.2	1	54.0-142			3.91	20
Chloroethane	25.0	U	27.7	26.2	111	105	1	23.0-160			5.47	20
2-Chloroethyl vinyl ether	125	U	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40
Chloroform	25.0	U	26.6	24.6	106	98.3	1	50.0-139			7.76	20
Chloromethane	25.0	U	27.2	25.5	109	102	1	14.0-151			6.48	20
2-Chlorotoluene	25.0	U	24.5	23.4	97.8	93.7	1	48.0-142			4.27	20
4-Chlorotoluene	25.0	U	24.5	23.2	98.0	92.7	1	52.0-139			5.61	20
1,2-Dibromo-3-Chloropropane	25.0	U	23.4	23.9	93.5	95.4	1	49.0-144			1.99	24
1,2-Dibromoethane	25.0	U	24.3	23.6	97.3	94.2	1	54.0-140			3.22	20
Dibromomethane	25.0	U	26.1	25.7	104	103	1	53.0-138			1.67	20
1,2-Dichlorobenzene	25.0	U	24.2	24.0	96.9	95.9	1	56.0-139			1.05	20
1,3-Dichlorobenzene	25.0	U	23.4	22.7	93.7	90.9	1	50.0-141			3.01	20
1,4-Dichlorobenzene	25.0	U	23.9	23.2	95.5	92.9	1	53.0-136			2.73	20
Dichlorodifluoromethane	25.0	U	30.3	28.2	121	113	1	20.0-160			7.15	21
1,1-Dichloroethane	25.0	U	27.3	25.4	109	101	1	47.0-143			7.40	20
1,2-Dichloroethane	25.0	U	28.7	28.0	115	112	1	47.0-141			2.66	20
1,1-Dichloroethene	25.0	U	26.2	25.1	105	100	1	31.0-148			4.37	20
cis-1,2-Dichloroethene	25.0	2.63	28.1	25.6	102	91.8	1	43.0-142			9.27	20
trans-1,2-Dichloroethene	25.0	U	23.6	21.6	94.3	86.4	1	36.0-141			8.76	20
1,2-Dichloropropane	25.0	U	27.7	26.8	111	107	1	51.0-141			3.38	20
1,1-Dichloropropene	25.0	U	24.4	22.9	97.6	91.4	1	42.0-146			6.48	20
1,3-Dichloropropane	25.0	U	25.3	24.6	101	98.3	1	58.0-139			2.86	20
cis-1,3-Dichloropropene	25.0	U	25.9	25.3	104	101	1	53.0-139			2.63	20
trans-1,3-Dichloropropene	25.0	U	27.4	26.6	110	106	1	51.0-143			3.10	20
trans-1,4-Dichloro-2-butene	25.0	U	22.4	21.0	89.5	84.1	1	40.0-150			6.21	21
2,2-Dichloropropane	25.0	U	27.8	25.5	111	102	1	43.0-139			8.81	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	U	31.4	29.8	126	119	1	44.0-144			5.01	20
Ethylbenzene	25.0	U	23.2	22.1	92.8	88.2	1	42.0-147			5.08	20
Hexachloro-1,3-butadiene	25.0	U	23.4	24.0	93.5	96.1	1	44.0-146			2.80	21
2-Hexanone	125	U	119	124	94.8	98.9	1	36.0-145			4.16	23
n-Hexane	25.0	0.306	20.9	20.2	82.3	79.5	1	13.0-145			3.41	20
Iodomethane	125	U	148	135	118	108	1	30.0-151			9.18	20
Isopropylbenzene	25.0	U	24.3	23.3	97.1	93.3	1	48.0-141			3.96	20
p-Isopropyltoluene	25.0	U	24.1	23.4	96.4	93.5	1	49.0-146			3.02	20
2-Butanone (MEK)	125	U	115	122	92.2	97.3	1	12.0-149			5.41	24
Methylene Chloride	25.0	U	24.2	22.6	96.7	90.6	1	42.0-135			6.50	20
4-Methyl-2-pentanone (MIBK)	125	U	161	168	129	134	1	44.0-160			3.97	22
Methyl tert-butyl ether	25.0	U	30.1	28.4	120	114	1	42.0-142			5.67	20
Naphthalene	25.0	U	20.9	23.3	83.5	93.4	1	42.0-146			11.2	24
n-Propylbenzene	25.0	U	24.6	23.4	98.5	93.5	1	47.0-144			5.12	20
Styrene	25.0	U	25.2	23.3	101	93.2	1	47.0-147			7.65	20
1,1,1,2-Tetrachloroethane	25.0	U	25.6	24.5	102	98.0	1	52.0-140			4.18	20
1,1,2,2-Tetrachloroethane	25.0	U	25.5	25.9	102	104	1	46.0-149			1.39	20
1,1,2-Trichlorotrifluoroethane	25.0	U	28.6	26.8	114	107	1	40.0-151			6.40	21
Tetrachloroethene	25.0	0.566	23.5	21.8	91.9	84.9	1	38.0-147			7.73	20
Toluene	25.0	U	24.2	22.7	96.6	90.8	1	42.0-141			6.21	20
1,2,3-Trichlorobenzene	25.0	U	19.3	21.2	77.2	84.7	1	45.0-145			9.27	22
1,2,4-Trichlorobenzene	25.0	U	20.9	21.7	83.8	86.7	1	49.0-147			3.51	21
1,1,1-Trichloroethane	25.0	U	27.0	25.4	108	102	1	46.0-140			5.94	20
1,1,2-Trichloroethane	25.0	U	24.2	23.8	97.0	95.3	1	54.0-139			1.80	20
Trichloroethene	25.0	0.355	24.4	23.3	96.4	91.9	1	32.0-156			4.69	20
Trichlorofluoromethane	25.0	U	30.6	28.3	122	113	1	32.0-152			7.70	20
1,2,3-Trichloropropane	25.0	U	25.8	25.6	103	102	1	54.0-143			0.930	21
1,2,4-Trimethylbenzene	25.0	U	23.9	23.0	95.5	92.0	1	41.0-146			3.76	20
1,2,3-Trimethylbenzene	25.0	U	24.5	24.4	97.9	97.4	1	48.0-138			0.420	20
1,3,5-Trimethylbenzene	25.0	U	24.2	23.2	96.8	92.6	1	44.0-143			4.44	20
Vinyl acetate	125	U	170	170	136	136	1	30.0-160			0.0400	20
Vinyl chloride	25.0	5.22	35.1	32.8	119	110	1	24.0-153			6.56	20
Xylenes, Total	75.0	U	69.6	65.6	92.8	87.5	1	41.0-148			5.92	20
(S) Toluene-d8					111	108		80.0-120				
(S) Dibromofluoromethane					105	102		76.0-123				
(S) 4-Bromofluorobenzene					101	97.0		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
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.
JO	JO - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
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		

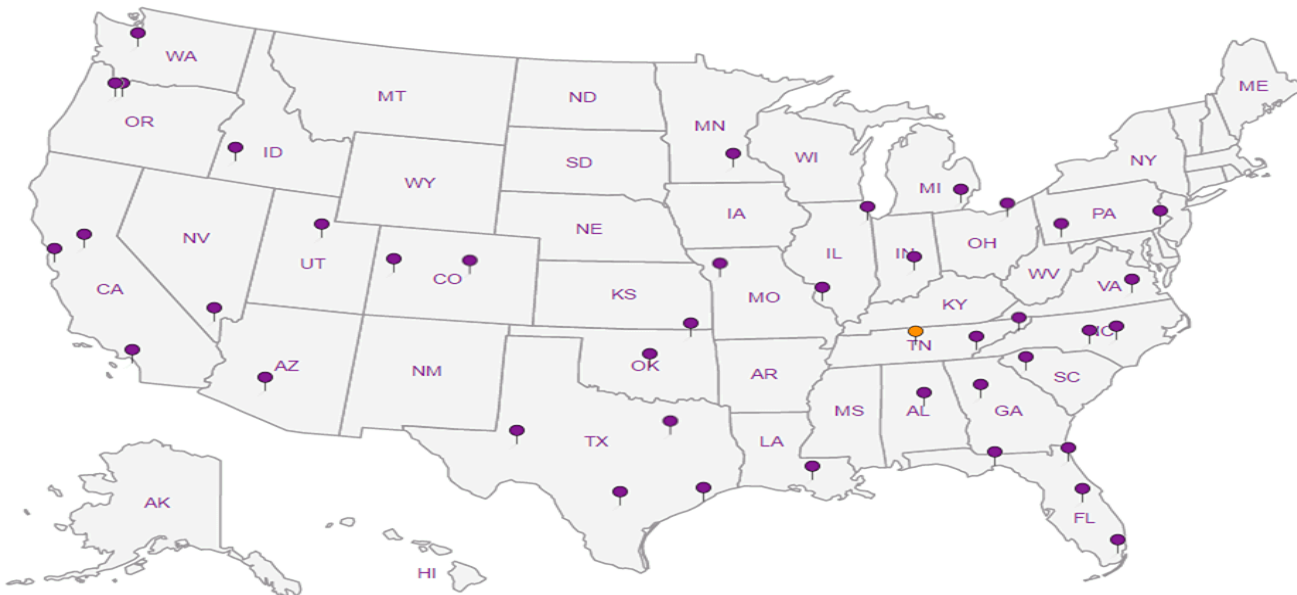
## Third Party & Federal Accreditations

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.**



1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

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Qc

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## MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 20 and 21, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L897427

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Nine (9) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 20 and 21, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897427. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897427 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 5.7 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for naphthalene were identified by the laboratory for sample SCS-2-032117 associated with analytical batch WG964116 (analyzed on March 28, 2017). The naphthalene result is qualified by the laboratory "J0" to indicate that percent difference for naphthalene CCV is outside of laboratory acceptance criteria. **Sample SCS-2-032117 result for naphthalene is detected above the reporting detection limit (RDL) and estimated (J).**

## Method Blank Results

### *USEPA Method 8260C:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections are reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compound 1,2,3-trichlorobenzene was not detected in the associated samples thus no action is required. **Low level acetone detections in samples MW-9-032017, R-MW-2-032117, R-MW-3-032117, R-MW-6-032117, MW116-032117, J5-032117, and K8-032117 are qualified as non-detect (U) due to blank contamination. Low level acetone and naphthalene detections in sample MW-8-032017 are qualified as non-detect (U) due to blank contamination.**

### *NWTPH-Gx Method:*

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

### *USEPA Method 6020:*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL with the following discussion:

- Low level manganese was detected in the method blank (WG963750) less than the RDL but greater than the MDL. No action was necessary as associated manganese results are significantly greater than low level manganese detection in the blank.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*



Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

### **Trip Blank Results**

*USEPA Method 8260C and NWTPH-Gx:*

A trip blank was collected and analyzed. The target analytes were not detected in the method blanks at or above the RDL with the following discussion:

- A low level acetone detection was reported below the RDL in the Trip Blank. No action was taken other than to note that low level acetone detection was also reported in the method blank and associated samples. Acetone detections in the associated samples are qualified as not detected (U) due to blank contamination.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples, and on sample MW116-032117. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) and not associated with this SDG. No action was taken in this case. Refer to LCS/LCSD results for precision data.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample R-MW-6-032117. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch, sample R-MW-6-032117, and sample J5-032117. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample MW116-032117. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

*USEPA Method 8260C:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

*USEPA Method 8260C:*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) spike compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within and MS/MSD recoveries are within criteria for these compounds.

*NWTPH-Gx Method:*

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C:*

MS/MSD analysis was performed on a client sample from another SDG within the analytical batch. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.

*NWTPH-Gx Method:*

Matrix spike analysis was not performed. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*

Matrix spike analysis was not performed. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on sample R-MW-6-032117. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- MS/MSD recoveries for manganese are outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

**Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

**Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.




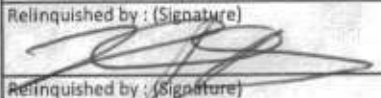
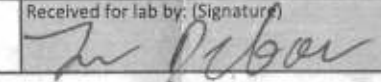
Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

**Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

<b>PES Environmental, Inc.- WA</b> 1215 Fourth Ave., Suite 1350 Seattle, WA 98161		Billing Information: <b>Attn: Accounts Payable</b> 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161		Pres Chk		Analysis / Container / Preservative L2 L2 *NO3,Cl,SO4,Aik 250mlHDPE-NoPres NWTPHGX 40mlAmb-HCl TOC 250mlAmb-HCl Total Fe Mn 6020 250mlHDPE-HNO3 low level 8260C 40mlAmb-HCl low level RSK175 40mlAmb-HCl						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: 615-758-5859  L # <u>1897 407</u> <b>A118</b> Acctnum: <b>PESENVSWA</b> Template: <b>T121414</b> Prelogin: <b>P592684</b> TSR: <b>110 - Brian Ford</b> PB: <u>3-13-17G</u> Shipped Via: <b>FedEX Ground</b>										
Report to: <b>Bill Haldeman</b>		Email To: <b>bhaldeman@pesenv.com</b>																				
Project Description: <b>American Linen Supply</b>		City/State Collected:		Client Project # <b>1413.001.02.002</b>		Lab Project # <b>PESENVSWA-141300102</b>																
Phone: <b>206-529-3980</b> Fax: <b>206-529-3985</b>		Site/Facility ID # <b>700 DEXTER AVE N SEATTLE</b>		P.O. #		Quote #																
Collected by (print): <i>Karen Spry</i>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Date Results Needed		No. of Cntrs																
Collected by (signature): 		Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>																				
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs																
SCS-2-032017	Grab	GW	17.5	3-20-17	1345	6	X															
MW-8-032017	Grab	GW	15	3-20-17	1420	4																
MW-9-032017	Grab	GW	15	3-20-17	1520	6	X															
R-MW-2-032117	Grab	GW	10	3-21-17	905	4																
R-MW-3-032117	Grab	GW	12		950	6	X															
R-MW-6-032117	Grab	GW	17		1130	11	X	X	X	X	X	X	X									
MW16-032117	Grab	GW	40		1230	9	X	X	X	X	X	X	X									
J5-032117	Grab	GW	25		1400	9	X	X	X	X	X	X	X									
K8-032117	Grab	GW	25		1500	9	X	X	X	X	X	X	X									
TRIP BLANK		GW				1																
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks: *Nitrate has a 48 hour hold time				Tracking # <u>7176 9011 7096</u>		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist CDC Seal Present/Intact: <input type="checkbox"/> NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N CDC Signed/Accurate: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Bottles arrive intact: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Correct bottles used: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Sufficient volume sent: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N												
Relinquished by: (Signature) 		Date: <u>3/21/17</u> Time: <u>1630</u>		Received by: (Signature)		Trip Blank Received: <input checked="" type="checkbox"/> Yes / No <input type="checkbox"/> HCl / MeOH <input type="checkbox"/> TEP																
Relinquished by: (Signature)		Date: _____ Time: _____		Received by: (Signature)		Temp: <u>5.7</u> °C Bottles Received: <u>64</u>		If preservation required by Login: Date/Time <u>L2</u>														
Relinquished by: (Signature)		Date: _____ Time: _____		Received for lab by: (Signature) 		Date: <u>3-22-17</u> Time: <u>0900</u>		Hold:		Conditions: NCF / <input checked="" type="checkbox"/> OK												





## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1660		31.6	100	1	03/23/2017 15:57	<a href="#">WG963440</a>
(S) a,a,a-Trifluorotoluene(FID)	94.2			77.0-122		03/23/2017 15:57	<a href="#">WG963440</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	78.8		1.05	25.0	1	03/28/2017 13:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:29	<a href="#">WG964116</a>
Benzene	51.8		0.0896	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
n-Butylbenzene	2.49		0.143	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
sec-Butylbenzene	2.02		0.134	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:29	<a href="#">WG964116</a>
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Di-isopropyl ether	1.41		0.0924	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Ethylbenzene	155	<u>J4</u>	0.158	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:29	<a href="#">WG964116</a>
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:29	<a href="#">WG964116</a>
n-Hexane	3.96		0.305	1.00	1	03/28/2017 13:29	<a href="#">WG964116</a>
Iodomethane	U		0.377	2.50	1	03/28/2017 13:29	<a href="#">WG964116</a>
Isopropylbenzene	19.0		0.126	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
p-Isopropyltoluene	0.379	<u>J</u>	0.138	0.500	1	03/28/2017 13:29	<a href="#">WG964116</a>
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:29	<a href="#">WG964116</a>

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Jc 4/26/17



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:29	WG964116	Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:29	WG964116	Tc
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:29	WG964116	Ss
Naphthalene	61.8	J JO	0.174	0.500	1	03/28/2017 13:29	WG964116	Cn
n-Propylbenzene	43.9		0.162	0.500	1	03/28/2017 13:29	WG964116	Sr
Styrene	U		0.117	0.500	1	03/28/2017 13:29	WG964116	Qc
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:29	WG964116	Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:29	WG964116	Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:29	WG964116	Sc
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:29	WG964116	
Toluene	9.54		0.412	1.00	1	03/28/2017 13:29	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:29	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:29	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:29	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:29	WG964116	
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:29	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:29	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:29	WG964116	
1,2,4-Trimethylbenzene	60.3		0.123	0.500	1	03/28/2017 13:29	WG964116	
1,2,3-Trimethylbenzene	59.3		0.0739	0.500	1	03/28/2017 13:29	WG964116	
1,3,5-Trimethylbenzene	5.36		0.124	0.500	1	03/28/2017 13:29	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:29	WG964116	
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:29	WG964116	
Xylenes, Total	181	J4	0.316	1.50	1	03/28/2017 13:29	WG964116	
(S) Toluene-d8	110			80.0-120		03/28/2017 13:29	WG964116	
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 13:29	WG964116	
(S) 4-Bromofluorobenzene	98.7			80.0-120		03/28/2017 13:29	WG964116	

JC  
4/26/17





Collected date/time: 03/20/17 14:20

L897427

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	3.68	U BJ	1.05	25.0	1	03/28/2017 13:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:49	WG964116
Benzene	0.145	J J	0.0896	0.500	1	03/28/2017 13:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 13:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 13:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 13:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 13:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:49	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 13:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:49	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 13:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 13:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 13:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:49	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:49	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 13:49	WG964116
Ethylbenzene	0.175	J JJ4	0.158	0.500	1	03/29/2017 14:54	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 13:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 13:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 13:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 13:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:49	WG964116
Naphthalene	0.195	U BJ	0.174	0.500	1	03/29/2017 14:54	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/29/2017 14:54	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 13:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:49	WG964116

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

*JC*  
4/26/17





Collected date/time: 03/20/17 14:20

L897427

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:49	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 13:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:49	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/29/2017 14:54	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/29/2017 14:54	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 13:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/29/2017 14:54	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 13:49	WG964116
(S) Toluene-d8	112			80.0-120		03/29/2017 14:54	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 13:49	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 14:54	WG964116
(S) 4-Bromofluorobenzene	99.5			80.0-120		03/28/2017 13:49	WG964116
(S) 4-Bromofluorobenzene	102			80.0-120		03/29/2017 14:54	WG964116

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC  
4/26/17



Collected date/time: 03/20/17 15:20

L897427

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	52.8	J	31.6	100	1	03/23/2017 16:20	WG963440
(S) a,a,a-Trifluorotoluene(FID)	96.3			77.0-122		03/23/2017 16:20	WG963440

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	4.08	W B J	1.05	25.0	1	03/28/2017 14:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:09	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 14:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 14:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 14:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 14:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 14:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 14:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 14:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:09	WG964116
cis-1,2-Dichloroethene	0.140	J J	0.0933	0.500	1	03/28/2017 14:09	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 14:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:09	WG964116
n-Hexane	0.311	J J	0.305	1.00	1	03/28/2017 14:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 14:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:09	WG964116

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

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MW-9-032017

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 03/20/17 15:20

L897427

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:09	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:14	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 14:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:09	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 14:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:09	WG964116
Vinyl chloride	0.324	J	0.118	0.500	1	03/28/2017 14:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:09	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 14:09	WG964116
(S) Toluene-d8	112			80.0-120		03/29/2017 15:14	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 14:09	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 15:14	WG964116
(S) 4-Bromofluorobenzene	96.5			80.0-120		03/28/2017 14:09	WG964116
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 15:14	WG964116

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

JC  
4/26/17



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.29	W BJ	1.05	25.0	1	03/28/2017 14:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:29	WG964116
Benzene	0.272	J J	0.0896	0.500	1	03/28/2017 14:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 14:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 14:29	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:29	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:29	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 14:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 14:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 14:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 14:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:29	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:29	WG964116
cis-1,2-Dichloroethene	0.341	J J	0.0933	0.500	1	03/28/2017 14:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 14:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 14:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 14:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:29	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:35	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:29	WG964116

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

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Collected date/time: 03/21/17 09:05

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 14:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 14:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:29	WG964116
Vinyl chloride	0.522		0.118	0.500	1	03/28/2017 14:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:29	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 14:29	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 15:35	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 15:35	WG964116
(S) Dibromofluoromethane	107			76.0-123		03/28/2017 14:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 14:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/29/2017 15:35	WG964116

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

*Jc*  
4/26/17



Collected date/time: 03/21/17 09:50

L897427

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range	U		31.6	100	1	03/23/2017 16:42	<a href="#">WG963440</a>
Organics-NWTPH							
(S) o,a,o-Trifluorotoluene(FID)	96.5			77.0-122		03/23/2017 16:42	<a href="#">WG963440</a>

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	14.3	W B J	1.05	25.0	1	03/28/2017 14:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 14:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 14:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Dibromomethane	U		0.117	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
cis-1,2-Dichloroethene	0.575		0.0933	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 14:49	<a href="#">WG964116</a>
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 14:49	<a href="#">WG964116</a>
2-Hexanone	U		0.757	2.50	1	03/28/2017 14:49	<a href="#">WG964116</a>
n-Hexane	U		0.305	1.00	1	03/28/2017 14:49	<a href="#">WG964116</a>
Iodomethane	U		0.377	2.50	1	03/28/2017 14:49	<a href="#">WG964116</a>
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 14:49	<a href="#">WG964116</a>
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 14:49	<a href="#">WG964116</a>

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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Collected date/time: 03/21/17 09:50

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 14:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 14:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 14:49	WG964116
Naphthalene	U		0.174	0.500	1	03/29/2017 15:55	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 14:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 14:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 14:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 14:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 14:49	WG964116
Tetrachloroethene	1.38		0.199	0.500	1	03/28/2017 14:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 14:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 14:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 14:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 14:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 14:49	WG964116
Trichloroethene	0.714		0.153	0.500	1	03/28/2017 14:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 14:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 14:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 14:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 14:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 14:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 14:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 14:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 14:49	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 15:55	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 14:49	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 14:49	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 15:55	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 14:49	WG964116
(S) 4-Bromofluorobenzene	102			80.0-120		03/29/2017 15:55	WG964116

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

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## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	586000		2710	20000	1	03/23/2017 10:36	WG963291

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	5720		51.9	1000	1	03/22/2017 22:20	WG963216
Nitrate	191		22.7	100	1	03/22/2017 22:20	WG963216
Sulfate	119000		387	25000	5	03/27/2017 16:29	WG964054

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6280		102	1000	1	03/25/2017 00:57	WG963248

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	5020		15.0	100	1	03/24/2017 12:21	WG963750
Manganese	6240	V	0.250	5.00	1	03/24/2017 12:21	WG963750

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	42.8	J J	31.6	100	1	03/23/2017 17:04	WG963440
(S) a, a, a-Trifluorotoluene(FID)	96.7			77.0-122		03/23/2017 17:04	WG963440

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	9410		5.74	13.6	20	03/23/2017 11:23	WG963506
Ethane	U		0.296	1.29	1	03/22/2017 21:24	WG963229
Ethene	U		0.422	1.27	1	03/22/2017 21:24	WG963229

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.14	U B J	1.05	25.0	1	03/28/2017 15:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:09	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 15:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 15:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 15:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 15:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:09	WG964116
Chloroethane	0.977		0.141	0.500	1	03/28/2017 15:09	WG964116

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:09	WG964116	Cp
Chloroform	U		0.0860	0.500	1	03/28/2017 15:09	WG964116	Tc
Chloromethane	U		0.153	0.500	1	03/28/2017 15:09	WG964116	Ss
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:09	WG964116	Cn
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:09	WG964116	Sr
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:09	WG964116	Qc
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:09	WG964116	Gl
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:09	WG964116	Al
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:09	WG964116	Sc
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:09	WG964116	
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:09	WG964116	
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:09	WG964116	
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:09	WG964116	
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:09	WG964116	
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 15:09	WG964116	
cis-1,2-Dichloroethene	20.0		0.0933	0.500	1	03/28/2017 15:09	WG964116	
trans-1,2-Dichloroethene	0.242	J J	0.152	0.500	1	03/28/2017 15:09	WG964116	
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:09	WG964116	
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:09	WG964116	
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:09	WG964116	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:09	WG964116	
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:09	WG964116	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:09	WG964116	
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:09	WG964116	
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:09	WG964116	
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:09	WG964116	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:09	WG964116	
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:09	WG964116	
n-Hexane	U		0.305	1.00	1	03/28/2017 15:09	WG964116	
Iodomethane	U		0.377	2.50	1	03/28/2017 15:09	WG964116	
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:09	WG964116	
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:09	WG964116	
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:09	WG964116	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:09	WG964116	
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:09	WG964116	
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:09	WG964116	
Naphthalene	U		0.174	0.500	1	03/29/2017 16:15	WG964116	
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:09	WG964116	
Styrene	U		0.117	0.500	1	03/28/2017 15:09	WG964116	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:09	WG964116	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:09	WG964116	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:09	WG964116	
Tetrachloroethene	1.08		0.199	0.500	1	03/28/2017 15:09	WG964116	
Toluene	U		0.412	1.00	1	03/28/2017 15:09	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:09	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:09	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:09	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:09	WG964116	
Trichloroethene	3.17		0.153	0.500	1	03/28/2017 15:09	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:09	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:09	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:09	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:09	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:09	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:09	WG964116	
Vinyl chloride	8.65		0.118	0.500	1	03/28/2017 15:09	WG964116	

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R-MW-6-032117

SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 03/21/17 11:30

L897427

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Xylenes, Total	U	<u>J4</u>	0.316	1.50	1	03/28/2017 15:09	<a href="#">WG964116</a>
(S) Toluene-d8	110			80.0-120		03/28/2017 15:09	<a href="#">WG964116</a>
(S) Toluene-d8	110			80.0-120		03/29/2017 16:15	<a href="#">WG964116</a>
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 15:09	<a href="#">WG964116</a>
(S) Dibromofluoromethane	106			76.0-123		03/29/2017 16:15	<a href="#">WG964116</a>
(S) 4-Bromofluorobenzene	99.6			80.0-120		03/28/2017 15:09	<a href="#">WG964116</a>
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 16:15	<a href="#">WG964116</a>

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

*Jc*  
4/26/17





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	432000		2710	20000	1	03/23/2017 10:51	<a href="#">WG963291</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	22000		51.9	1000	1	03/22/2017 22:51	<a href="#">WG963216</a>
Nitrate	U		22.7	100	1	03/22/2017 22:51	<a href="#">WG963216</a>
Sulfate	25700		77.4	5000	1	03/22/2017 22:51	<a href="#">WG963216</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	7340		102	1000	1	03/25/2017 01:10	<a href="#">WG963248</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	6010		15.0	100	1	03/24/2017 13:16	<a href="#">WG963750</a>
Manganese	869		0.250	5.00	1	03/24/2017 13:16	<a href="#">WG963750</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	8590		11.5	27.1	40	03/23/2017 11:40	<a href="#">WG963506</a>
Ethane	U		0.296	1.29	1	03/22/2017 21:58	<a href="#">WG963229</a>
Ethene	U		0.422	1.27	1	03/22/2017 21:58	<a href="#">WG963229</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	3.32	U B J	1.05	25.0	1	03/28/2017 15:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:29	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:29	<a href="#">WG964116</a>

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MW116-032117

## SAMPLE RESULTS - 07

ONE LAB. NATIONWIDE.



Collected date/time: 03/21/17 12:36

L897427

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 15:29	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 15:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 15:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 15:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 15:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 15:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 15:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 15:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 15:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 15:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:29	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 15:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 15:29	WG964116
(S) Toluene-d8	112			80.0-120		03/28/2017 15:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 15:29	WG964116
(S) 4-Bromofluorobenzene	99.2			80.0-120		03/28/2017 15:29	WG964116

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

4/26/17





Collected date/time: 03/21/17 14:00

L897427

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	ug/l		ug/l	ug/l		date / time	
Alkalinity	53400		2710	20000	1	03/23/2017 09:26	WG963291

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	ug/l		ug/l	ug/l		date / time	
Chloride	28000		51.9	1000	1	03/22/2017 23:06	WG963216
Nitrate	58.4	J JPI	22.7	100	1	03/22/2017 23:06	WG963216
Sulfate	16300		77.4	5000	1	03/22/2017 23:06	WG963216

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4100		102	1000	1	03/25/2017 01:37	WG963248

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	ug/l		ug/l	ug/l		date / time	
Iron	1090		15.0	100	1	03/24/2017 13:20	WG963750
Manganese	474		0.250	5.00	1	03/24/2017 13:20	WG963750

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	ug/l		ug/l	ug/l		date / time	
Methane	2370		5.74	13.6	20	03/23/2017 13:20	WG963578
Ethane	U		0.296	1.29	1	03/22/2017 22:31	WG963229
Ethene	29.4		0.422	1.27	1	03/22/2017 22:31	WG963229

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	ug/l		ug/l	ug/l		date / time	
Acetone	3.24	W BJ	1.05	25.0	1	03/28/2017 15:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 15:49	WG964116
Benzene	0.580		0.0896	0.500	1	03/28/2017 15:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 15:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 15:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 15:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 15:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 15:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 15:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 15:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 15:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 15:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 15:49	WG964116
Chlorobenzene	U	JA	0.140	0.500	1	03/28/2017 15:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 15:49	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 15:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 15:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 15:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 15:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 15:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 15:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 15:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 15:49	WG964116

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SAMPLE RESULTS - 08

ONE LAB. NATIONWIDE.



Collected date/time: 03/21/17 14:00

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 15:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 15:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloroethene	0.453	J	0.188	0.500	1	03/28/2017 15:49	WG964116
cis-1,2-Dichloroethene	253		0.933	5.00	10	03/29/2017 16:35	WG964116
trans-1,2-Dichloroethene	1.73		0.152	0.500	1	03/28/2017 15:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 15:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 15:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 15:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 15:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 15:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 15:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 15:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 15:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 15:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 15:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 15:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 15:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 15:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 15:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 15:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 15:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 15:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 15:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 15:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 15:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 15:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 15:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 15:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 15:49	WG964116
Tetrachloroethene	285		1.99	5.00	10	03/29/2017 16:35	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 15:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 15:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 15:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 15:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 15:49	WG964116
Trichloroethene	78.5		0.153	0.500	1	03/28/2017 15:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 15:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 15:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 15:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 15:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 15:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 15:49	WG964116
Vinyl chloride	29.6		0.118	0.500	1	03/28/2017 15:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 15:49	WG964116
(S) Toluene-d8	108			80.0-120		03/28/2017 15:49	WG964116
(S) Toluene-d8	109			80.0-120		03/29/2017 16:35	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/29/2017 16:35	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 15:49	WG964116
(S) 4-Bromofluorobenzene	99.0			80.0-120		03/28/2017 15:49	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 16:35	WG964116

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

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	70300		2710	20000	1	03/23/2017 08:52	WG963291

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10100		51.9	1000	1	03/22/2017 23:22	WG963216
Nitrate	103		22.7	100	1	03/22/2017 23:22	WG963216
Sulfate	27200		77.4	5000	1	03/22/2017 23:22	WG963216

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	5930		102	1000	1	03/25/2017 01:51	WG963248

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	62.2	J ↓	15.0	100	1	03/24/2017 13:23	WG963750
Manganese	242		0.250	5.00	1	03/24/2017 13:23	WG963750

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	41.4		0.287	0.678	1	03/22/2017 22:48	WG963229
Ethane	U		0.296	1.29	1	03/22/2017 22:48	WG963229
Ethene	U		0.422	1.27	1	03/22/2017 22:48	WG963229

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.26	U BJ	1.05	25.0	1	03/28/2017 16:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:09	WG964116
Benzene	0.239	J ↓	0.0896	0.500	1	03/28/2017 16:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 16:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 16:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 16:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 16:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 16:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 16:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 16:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:09	WG964116

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## SAMPLE RESULTS - 09

ONE LAB. NATIONWIDE.



Collected date/time: 03/21/17 15:00

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:09	WG964116	Cp
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:09	WG964116	Tc
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:09	WG964116	Ss
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:09	WG964116	Cn
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:09	WG964116	Sr
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:09	WG964116	Qc
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:09	WG964116	Gl
1,1-Dichloroethene	1.47		0.188	0.500	1	03/28/2017 16:09	WG964116	Al
cis-1,2-Dichloroethene	123		0.0933	0.500	1	03/28/2017 16:09	WG964116	Sc
trans-1,2-Dichloroethene	0.680		0.152	0.500	1	03/28/2017 16:09	WG964116	
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:09	WG964116	
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:09	WG964116	
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:09	WG964116	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:09	WG964116	
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:09	WG964116	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:09	WG964116	
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:09	WG964116	
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 16:09	WG964116	
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 16:09	WG964116	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:09	WG964116	
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:09	WG964116	
n-Hexane	U		0.305	1.00	1	03/28/2017 16:09	WG964116	
Iodomethane	U		0.377	2.50	1	03/28/2017 16:09	WG964116	
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:09	WG964116	
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:09	WG964116	
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:09	WG964116	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:09	WG964116	
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:09	WG964116	
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:09	WG964116	
Naphthalene	U		0.174	0.500	1	03/28/2017 16:09	WG964116	
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:09	WG964116	
Styrene	U		0.117	0.500	1	03/28/2017 16:09	WG964116	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:09	WG964116	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:09	WG964116	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:09	WG964116	
Tetrachloroethene	82.5		0.199	0.500	1	03/28/2017 16:09	WG964116	
Toluene	U		0.412	1.00	1	03/28/2017 16:09	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:09	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:09	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:09	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:09	WG964116	
Trichloroethene	22.0		0.153	0.500	1	03/28/2017 16:09	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:09	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:09	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:09	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:09	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:09	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:09	WG964116	
Vinyl chloride	0.461	J J	0.118	0.500	1	03/28/2017 16:09	WG964116	
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:09	WG964116	
(S) Toluene-d8	109			80.0-120		03/28/2017 16:09	WG964116	
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 16:09	WG964116	
(S) 4-Bromofluorobenzene	102			80.0-120		03/28/2017 16:09	WG964116	

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Collected date/time: 03/21/17 00:00

SAMPLE RESULTS - 10

L897427

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/23/2017 14:06	WG963440
(S) a,a,a-Trifluorotoluene(FID) 96.4				77.0-122		03/23/2017 14:06	WG963440

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.70	U BJ	1.05	25.0	1	03/28/2017 12:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 12:49	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 12:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 12:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 12:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 12:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 12:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 12:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 12:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 12:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 12:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 12:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 12:49	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 12:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 12:49	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 12:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 12:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 12:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 12:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 12:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 12:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 12:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 12:49	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 12:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 12:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 12:49	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 12:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 12:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 12:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 12:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 12:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 12:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 12:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 12:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 12:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 12:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 12:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 12:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 12:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 12:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 12:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 12:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 12:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 12:49	WG964116

- 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

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SAMPLE RESULTS - 10

ONE LAB. NATIONWIDE.



Collected date/time: 03/21/17 00:00

L897427

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 12:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 12:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 12:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 12:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 12:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 12:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 12:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 12:49	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 12:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 12:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 12:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 12:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 12:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 12:49	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 12:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 12:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 12:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 12:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 12:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 12:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 12:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 12:49	WG964116
Xylenes, Total	U	<u>J4</u>	0.316	1.50	1	03/28/2017 12:49	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 12:49	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 12:49	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 12:49	WG964116

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

*Handwritten signature and date: 4/26/17*



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L897678  
Samples Received: 03/23/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



## MW125-032217 L897678-01 GW

Collected by  
Karsten Springstead      Collected date/time  
03/22/17 08:35      Received date/time  
03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963909	1	03/30/17 00:57	03/30/17 00:57	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 16:29	03/28/17 16:29	JHH

1  
Cp

2  
Tc

3  
Ss

## BB-8-032217 L897678-02 GW

Collected by  
Karsten Springstead      Collected date/time  
03/22/17 10:20      Received date/time  
03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 08:17	03/25/17 08:17	AMC
Wet Chemistry by Method 9056A	WG963516	1	03/23/17 12:28	03/23/17 12:28	SAM
Wet Chemistry by Method 9060A	WG964268	1	03/27/17 19:12	03/27/17 19:12	SJM
Metals (ICPMS) by Method 6020	WG963864	1	03/24/17 19:01	03/27/17 02:33	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963578	1	03/23/17 15:16	03/23/17 15:16	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 16:49	03/28/17 16:49	JHH

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

## MW113-032217 L897678-03 GW

Collected by  
Karsten Springstead      Collected date/time  
03/22/17 12:05      Received date/time  
03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 10:48	03/25/17 10:48	AMC
Wet Chemistry by Method 9056A	WG963516	1	03/23/17 12:54	03/23/17 12:54	SAM
Wet Chemistry by Method 9060A	WG964268	1	03/27/17 19:35	03/27/17 19:35	SJM
Metals (ICPMS) by Method 6020	WG963864	1	03/24/17 19:01	03/27/17 02:36	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963578	1	03/23/17 16:31	03/23/17 16:31	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG964586	10	03/27/17 16:06	03/27/17 16:06	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 17:09	03/28/17 17:09	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	200	03/29/17 17:55	03/29/17 17:55	BMB

9  
Sc

## MW115-032217 L897678-04 GW

Collected by  
Karsten Springstead      Collected date/time  
03/22/17 12:25      Received date/time  
03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 10:55	03/25/17 10:55	AMC
Wet Chemistry by Method 9056A	WG963516	1	03/23/17 13:19	03/23/17 13:19	SAM
Wet Chemistry by Method 9060A	WG964268	1	03/27/17 19:51	03/27/17 19:51	SJM
Metals (ICPMS) by Method 6020	WG963864	1	03/24/17 19:01	03/27/17 02:39	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963578	1	03/23/17 17:21	03/23/17 17:21	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 17:29	03/28/17 17:29	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 16:55	03/29/17 16:55	BMB

## MW112-032217 L897678-05 GW

Collected by  
Karsten Springstead      Collected date/time  
03/22/17 14:05      Received date/time  
03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 08:52	03/25/17 08:52	AMC
Wet Chemistry by Method 9056A	WG963516	1	03/23/17 13:58	03/23/17 13:58	SAM
Wet Chemistry by Method 9060A	WG964268	1	03/27/17 20:08	03/27/17 20:08	SJM
Metals (ICPMS) by Method 6020	WG963864	1	03/24/17 19:01	03/26/17 22:51	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG963578	1	03/23/17 17:37	03/23/17 17:37	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 17:49	03/28/17 17:49	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 17:15	03/29/17 17:15	BMB

# SAMPLE SUMMARY



## G12-032217 L897678-06 GW

Collected by: Karsten Springstead  
 Collected date/time: 03/22/17 14:35  
 Received date/time: 03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 18:09	03/28/17 18:09	JHH

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## TRIP BLANK-032217 L897678-07 GW

Collected by: Karsten Springstead  
 Collected date/time: 03/22/17 00:00  
 Received date/time: 03/23/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG963909	1	03/30/17 02:26	03/30/17 02:26	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 13:09	03/28/17 13:09	JHH

<sup>4</sup> Cn

<sup>5</sup> Sr

<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.

Brian Ford  
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



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/30/2017 00:57	WG963909
(S) a,a,a-Trifluorotoluene(FID) 97.5				77.0-122		03/30/2017 00:57	WG963909

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.20	<u>B J</u>	1.05	25.0	1	03/28/2017 16:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:29	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 16:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 16:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 16:29	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:29	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:29	WG964116
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 16:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 16:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 16:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 16:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 16:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:29	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 16:29	WG964116
cis-1,2-Dichloroethene	0.341	<u>J</u>	0.0933	0.500	1	03/28/2017 16:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 16:29	WG964116
Ethylbenzene	U	<u>J4</u>	0.158	0.500	1	03/28/2017 16:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 16:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 16:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:29	WG964116





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 16:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 16:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:29	WG964116
Tetrachloroethene	0.285	J	0.199	0.500	1	03/28/2017 16:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 16:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 16:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:29	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 16:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:29	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 16:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 16:29	WG964116
(S) 4-Bromofluorobenzene	98.6			80.0-120		03/28/2017 16:29	WG964116

- 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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	254000		2710	20000	1	03/25/2017 08:17	<a href="#">WG963928</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	7870		51.9	1000	1	03/23/2017 12:28	<a href="#">WG963516</a>
Nitrate	3170		22.7	100	1	03/23/2017 12:28	<a href="#">WG963516</a>
Sulfate	41500		77.4	5000	1	03/23/2017 12:28	<a href="#">WG963516</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2250		102	1000	1	03/27/2017 19:12	<a href="#">WG964268</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	125		15.0	100	1	03/27/2017 02:33	<a href="#">WG963864</a>
Manganese	70.5		0.250	5.00	1	03/27/2017 02:33	<a href="#">WG963864</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	0.412	J	0.287	0.678	1	03/23/2017 15:16	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 15:16	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 15:16	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.52	B J	1.05	25.0	1	03/28/2017 16:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 16:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/22/17 10:20

L897678

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 16:49	WG964116
cis-1,2-Dichloroethene	3.10		0.0933	0.500	1	03/28/2017 16:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 16:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 16:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 16:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 16:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 16:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 16:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:49	WG964116
Tetrachloroethene	30.4		0.199	0.500	1	03/28/2017 16:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 16:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:49	WG964116
Trichloroethene	4.95		0.153	0.500	1	03/28/2017 16:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 16:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:49	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 16:49	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 16:49	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/28/2017 16:49	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	594000		2710	20000	1	03/25/2017 10:48	<a href="#">WG963928</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	65500		51.9	1000	1	03/23/2017 12:54	<a href="#">WG963516</a>
Nitrate	29.5	J	22.7	100	1	03/23/2017 12:54	<a href="#">WG963516</a>
Sulfate	55400		77.4	5000	1	03/23/2017 12:54	<a href="#">WG963516</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	27000		102	1000	1	03/27/2017 19:35	<a href="#">WG964268</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	7460		15.0	100	1	03/27/2017 02:36	<a href="#">WG963864</a>
Manganese	757		0.250	5.00	1	03/27/2017 02:36	<a href="#">WG963864</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	3530		2.87	6.78	10	03/27/2017 16:06	<a href="#">WG964586</a>
Ethane	U		0.296	1.29	1	03/23/2017 16:31	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 16:31	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.28	B J	1.05	25.0	1	03/28/2017 17:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:09	<a href="#">WG964116</a>
Benzene	2.60		0.0896	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:09	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:09	WG964116
1,1-Dichloroethene	10.7		0.188	0.500	1	03/28/2017 17:09	WG964116
cis-1,2-Dichloroethene	7280		18.7	100	200	03/29/2017 17:55	WG964116
trans-1,2-Dichloroethene	25.4		0.152	0.500	1	03/28/2017 17:09	WG964116
1,2-Dichloropropane	0.240	J	0.190	0.500	1	03/28/2017 17:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 17:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 17:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 17:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 17:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 17:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:09	WG964116
Trichloroethene	27.1		0.153	0.500	1	03/28/2017 17:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:09	WG964116
Vinyl chloride	63.5		0.118	0.500	1	03/28/2017 17:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:09	WG964116
(S) Toluene-d8	109			80.0-120		03/29/2017 17:55	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 17:09	WG964116
(S) Dibromofluoromethane	101			76.0-123		03/29/2017 17:55	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 17:09	WG964116
(S) 4-Bromofluorobenzene	99.7			80.0-120		03/28/2017 17:09	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:55	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	417000		2710	20000	1	03/25/2017 10:55	<a href="#">WG963928</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	28500		51.9	1000	1	03/23/2017 13:19	<a href="#">WG963516</a>
Nitrate	U		22.7	100	1	03/23/2017 13:19	<a href="#">WG963516</a>
Sulfate	35900		77.4	5000	1	03/23/2017 13:19	<a href="#">WG963516</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7690		102	1000	1	03/27/2017 19:51	<a href="#">WG964268</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5690		15.0	100	1	03/27/2017 02:39	<a href="#">WG963864</a>
Manganese	1320		0.250	5.00	1	03/27/2017 02:39	<a href="#">WG963864</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	215		0.287	0.678	1	03/23/2017 17:21	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 17:21	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 17:21	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.67	<a href="#">B J</a>	1.05	25.0	1	03/28/2017 17:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:29	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chlorobenzene	U	<a href="#">J4</a>	0.140	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 03/22/17 12:25

L897678

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 17:29	WG964116
cis-1,2-Dichloroethene	0.643		0.0933	0.500	1	03/29/2017 16:55	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 17:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 17:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 17:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 17:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 17:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 17:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:29	WG964116
Vinyl chloride	15.7		0.118	0.500	1	03/28/2017 17:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:29	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 16:55	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 17:29	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 17:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/29/2017 16:55	WG964116
(S) 4-Bromofluorobenzene	99.7			80.0-120		03/28/2017 17:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/29/2017 16:55	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	188000		2710	20000	1	03/25/2017 08:52	<a href="#">WG963928</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10600		51.9	1000	1	03/23/2017 13:58	<a href="#">WG963516</a>
Nitrate	U		22.7	100	1	03/23/2017 13:58	<a href="#">WG963516</a>
Sulfate	45200		77.4	5000	1	03/23/2017 13:58	<a href="#">WG963516</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1350		102	1000	1	03/27/2017 20:08	<a href="#">WG964268</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	238		15.0	100	1	03/26/2017 22:51	<a href="#">WG963864</a>
Manganese	41.1		0.250	5.00	1	03/26/2017 22:51	<a href="#">WG963864</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	4.89		0.287	0.678	1	03/23/2017 17:37	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 17:37	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 17:37	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.80	<b>B J</b>	1.05	25.0	1	03/28/2017 17:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chlorobenzene	U	<b>J4</b>	0.140	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/22/17 14:05

L897678

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:49	WG964116	1 Cp
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:49	WG964116	2 Tc
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:49	WG964116	
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:49	WG964116	3 Ss
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:49	WG964116	
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:49	WG964116	4 Cn
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:49	WG964116	
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 17:49	WG964116	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/29/2017 17:15	WG964116	5 Sr
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 17:49	WG964116	
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 17:49	WG964116	6 Qc
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:49	WG964116	
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:49	WG964116	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:49	WG964116	7 Gl
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:49	WG964116	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:49	WG964116	8 Al
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:49	WG964116	
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:49	WG964116	
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:49	WG964116	9 Sc
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:49	WG964116	
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:49	WG964116	
n-Hexane	U		0.305	1.00	1	03/28/2017 17:49	WG964116	
Iodomethane	U		0.377	2.50	1	03/28/2017 17:49	WG964116	
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:49	WG964116	
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:49	WG964116	
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:49	WG964116	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:49	WG964116	
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:49	WG964116	
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:49	WG964116	
Naphthalene	U		0.174	0.500	1	03/28/2017 17:49	WG964116	
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:49	WG964116	
Styrene	U		0.117	0.500	1	03/28/2017 17:49	WG964116	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:49	WG964116	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:49	WG964116	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:49	WG964116	
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:49	WG964116	
Toluene	U		0.412	1.00	1	03/28/2017 17:49	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:49	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:49	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:49	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:49	WG964116	
Trichloroethene	U		0.153	0.500	1	03/28/2017 17:49	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:49	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:49	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:49	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:49	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:49	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:49	WG964116	
Vinyl chloride	U		0.118	0.500	1	03/28/2017 17:49	WG964116	
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:49	WG964116	
(S) Toluene-d8	109			80.0-120		03/29/2017 17:15	WG964116	
(S) Toluene-d8	112			80.0-120		03/28/2017 17:49	WG964116	
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 17:49	WG964116	
(S) Dibromofluoromethane	102			76.0-123		03/29/2017 17:15	WG964116	
(S) 4-Bromofluorobenzene	97.6			80.0-120		03/28/2017 17:49	WG964116	
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:15	WG964116	



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.41	<u>B</u> <u>J</u>	1.05	25.0	1	03/28/2017 18:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
Benzene	0.298	<u>J</u>	0.0896	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J</u> <u>4</u>	0.140	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Chloroethane	0.583		0.141	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,1-Dichloroethene	2.23		0.188	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
cis-1,2-Dichloroethene	130		0.0933	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
trans-1,2-Dichloroethene	2.85		0.152	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:09	<a href="#">WG964116</a>
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Ethylbenzene	U	<u>J</u> <u>4</u>	0.158	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:09	<a href="#">WG964116</a>
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
n-Hexane	U		0.305	1.00	1	03/28/2017 18:09	<a href="#">WG964116</a>
Iodomethane	U		0.377	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:09	<a href="#">WG964116</a>
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Naphthalene	U		0.174	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
Styrene	U		0.117	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:09	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/22/17 14:35

L897678

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 18:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:09	WG964116
Trichloroethene	0.474	J	0.153	0.500	1	03/28/2017 18:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:09	WG964116
Vinyl chloride	41.9		0.118	0.500	1	03/28/2017 18:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:09	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 18:09	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 18:09	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:09	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/30/2017 02:26	WG963909
(S) a,a,a-Trifluorotoluene(FID)	98.2			77.0-122		03/30/2017 02:26	WG963909

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.84	<u>B J</u>	1.05	25.0	1	03/28/2017 13:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:09	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 13:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 13:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 13:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 13:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 13:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:09	WG964116
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 13:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 13:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 13:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 13:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:09	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:09	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 13:09	WG964116
Ethylbenzene	U	<u>J4</u>	0.158	0.500	1	03/28/2017 13:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 13:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 13:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 13:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 13:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:09	WG964116





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 13:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 13:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 13:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:09	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 13:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:09	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:09	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 13:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 13:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 13:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:09	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 13:09	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 13:09	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 13:09	WG964116
(S) 4-Bromofluorobenzene	99.8			80.0-120		03/28/2017 13:09	WG964116

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



Method Blank (MB)

(MB) R3205870-1 03/25/17 08:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3130	J	2710	20000

<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

L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/25/17 08:17 • (DUP) R3205870-8 03/25/17 08:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	254000	260000	1	2.00		20

L897906-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-06 03/25/17 11:15 • (DUP) R3205870-11 03/25/17 11:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	671000	677000	1	1.00		20

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

(LCS) R3205870-9 03/25/17 09:20 • (LCSD) R3205870-10 03/25/17 10:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	94200	105000	94.0	105	85.0-115			10.0	20



Method Blank (MB)

(MB) R3205596-1 03/23/17 07:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/23/17 12:28 • (DUP) R3205596-4 03/23/17 12:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	7870	7880	1	0		15
Nitrate	3170	3150	1	1		15
Sulfate	41500	41400	1	0		15

L897686-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897686-01 03/23/17 15:03 • (DUP) R3205596-6 03/23/17 15:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	3530	3540	1	0		15
Nitrate	1810	1820	1	1		15
Sulfate	11700	11700	1	0		15

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

(LCS) R3205596-2 03/23/17 07:35 • (LCSD) R3205596-3 03/23/17 07:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39300	39400	98	98	80-120			0	15
Nitrate	8000	8110	8120	101	102	80-120			0	15
Sulfate	40000	39900	40000	100	100	80-120			0	15

L897678-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897678-03 03/23/17 12:54 • (MS) R3205596-5 03/23/17 13:07

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	65500	112000	94	1	80-120	E
Nitrate	5000	29.5	4610	92	1	80-120	



L897678-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L897678-03 03/23/17 12:54 • (MS) R3205596-5 03/23/17 13:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50000	55400	100000	90	1	80-120	E

L897674-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897674-04 03/23/17 19:09 • (MS) R3205596-9 03/23/17 19:21 • (MSD) R3205596-10 03/23/17 19:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	214000	5170000	5120000	99	98	100	80-120			1	15
Nitrate	5000	21800	536000	504000	103	97	100	80-120			6	15
Sulfate	50000	3960000	8890000	8820000	98	97	100	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) R3206289-1 03/27/17 10:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897450-10 Original Sample (OS) • Duplicate (DUP)

(OS) L897450-10 03/27/17 15:29 • (DUP) R3206289-6 03/27/17 15:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1470	1480	1	1		20

L897678-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-05 03/27/17 20:08 • (DUP) R3206289-7 03/27/17 20:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1350	1450	1	7		20

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

(LCS) R3206289-2 03/27/17 12:10 • (LCSD) R3206289-5 03/27/17 14:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	72800	73000	97	97	85-115			0	20

L897450-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897450-05 03/27/17 12:59 • (MS) R3206289-3 03/27/17 13:17 • (MSD) R3206289-4 03/27/17 13:35

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	2610	52600	53400	100	101	1	80-120			1	20



Method Blank (MB)

(MB) R3205986-1 03/26/17 22:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3205986-2 03/26/17 22:44 • (LCSD) R3205986-3 03/26/17 22:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4800	4790	96	96	80-120			0	20
Manganese	50.0	46.7	45.9	93	92	80-120			2	20

5 Sr

6 Qc

L897678-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897678-05 03/26/17 22:51 • (MS) R3205986-5 03/26/17 22:58 • (MSD) R3205986-6 03/26/17 23:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	238	4930	4890	94	93	1	75-125			1	20
Manganese	50.0	41.1	81.3	81.6	80	81	1	75-125			0	20

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3207028-3 03/29/17 23:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)				77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3207028-1 03/29/17 22:32 • (LCSD) R3207028-2 03/29/17 22:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	5660	5940	103	108	72.0-134			4.97	20
(S) a,a,a-Trifluorotoluene(FID)				103	103	77.0-122				

5 Sr

6 Qc

7 Gl

L897678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897678-01 03/30/17 00:57 • (MS) R3207028-4 03/30/17 01:19 • (MSD) R3207028-5 03/30/17 01:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	U	2710	2300	49.3	41.9	1	23.0-159			16.2	20
(S) a,a,a-Trifluorotoluene(FID)					94.0	94.3		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3205647-1 03/23/17 12:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

<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

L897590-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-02 03/23/17 13:36 • (DUP) R3205647-2 03/23/17 16:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L897590-05 Original Sample (OS) • Duplicate (DUP)

(OS) L897590-05 03/23/17 17:04 • (DUP) R3205647-3 03/23/17 18:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	2090	238	1	159		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3205647-4 03/23/17 19:51 • (LCSD) R3205647-5 03/24/17 09:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	63.7	66.4	94.0	97.9	70.0-130			4.03	20
Ethane	129	114	119	88.7	92.1	70.0-130			3.76	20
Ethene	127	113	118	89.0	93.2	70.0-130			4.64	20



Method Blank (MB)

(MB) R3206377-1 03/27/17 15:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

L897633-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897633-02 03/27/17 16:56 • (DUP) R3206377-2 03/27/17 21:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	10200	10700	50	4.68		20

<sup>6</sup> Qc

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

(LCS) R3206377-3 03/27/17 22:12 • (LCSD) R3206377-4 03/27/17 22:29

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	66.8	67.7	98.5	99.8	70.0-130			1.33	20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3206693-3 03/28/17 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	2.11	J	1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3206693-3 03/28/17 10:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.204	U	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	0.255	U	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	111			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	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



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

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	153	165	123	132	10.0-160			7.11	23
Acrylonitrile	125	123	131	98.5	105	60.0-142			6.50	20
Benzene	25.0	20.2	21.6	81.0	86.4	69.0-123			6.50	20
Bromobenzene	25.0	20.3	22.5	81.4	90.2	79.0-120			10.3	20
Bromodichloromethane	25.0	22.6	24.1	90.6	96.2	76.0-120			6.03	20
Bromochloromethane	25.0	20.2	21.3	80.7	85.3	76.0-122			5.62	20
Bromoform	25.0	19.9	21.6	79.5	86.4	67.0-132			8.22	20
Bromomethane	25.0	24.0	24.1	95.8	96.5	18.0-160			0.760	20
n-Butylbenzene	25.0	22.0	23.5	87.9	94.0	72.0-126			6.66	20
sec-Butylbenzene	25.0	20.0	21.7	80.0	86.7	74.0-121			8.07	20
tert-Butylbenzene	25.0	20.0	21.9	80.1	87.7	75.0-122			9.10	20
Carbon disulfide	25.0	17.9	18.8	71.8	75.1	55.0-127			4.53	20
Carbon tetrachloride	25.0	21.0	22.6	84.0	90.4	63.0-122			7.38	20
Chlorobenzene	25.0	19.7	21.5	78.7	86.1	79.0-121	J4		9.01	20
Chlorodibromomethane	25.0	21.1	23.0	84.3	92.2	75.0-125			8.84	20
Chloroethane	25.0	24.6	25.8	98.5	103	47.0-152			4.82	20
2-Chloroethyl vinyl ether	125	137	147	109	118	10.0-160			7.24	22
Chloroform	25.0	21.7	23.0	86.9	92.2	72.0-121			5.95	20
Chloromethane	25.0	24.6	24.4	98.2	97.7	48.0-139			0.560	20
2-Chlorotoluene	25.0	20.2	22.4	80.9	89.5	74.0-122			10.1	20
4-Chlorotoluene	25.0	20.5	22.6	81.8	90.4	79.0-120			9.96	20
1,2-Dibromo-3-Chloropropane	25.0	18.2	19.3	73.0	77.4	64.0-127			5.86	20
1,2-Dibromoethane	25.0	20.1	21.8	80.5	87.2	77.0-123			7.94	20
Dibromomethane	25.0	22.3	23.4	89.3	93.6	78.0-120			4.76	20
1,2-Dichlorobenzene	25.0	20.6	22.1	82.3	88.2	80.0-120			6.90	20
1,3-Dichlorobenzene	25.0	19.3	20.9	77.1	83.5	72.0-123			7.88	20
1,4-Dichlorobenzene	25.0	20.1	22.0	80.3	88.1	77.0-120			9.24	20
Dichlorodifluoromethane	25.0	27.2	24.6	109	98.2	49.0-155			10.2	20
1,1-Dichloroethane	25.0	22.4	23.7	89.4	94.8	70.0-126			5.84	20
1,2-Dichloroethane	25.0	23.9	25.1	95.7	100	67.0-126			4.63	20
1,1-Dichloroethene	25.0	21.9	22.7	87.6	90.8	64.0-129			3.64	20
cis-1,2-Dichloroethene	25.0	21.0	22.4	83.8	89.6	73.0-120			6.65	20
trans-1,2-Dichloroethene	25.0	19.7	20.6	79.0	82.3	71.0-121			4.15	20
1,2-Dichloropropane	25.0	22.9	25.3	91.8	101	75.0-125			9.66	20
1,1-Dichloropropene	25.0	21.0	22.7	84.1	90.6	71.0-129			7.53	20
1,3-Dichloropropane	25.0	21.0	22.4	84.0	89.8	80.0-121			6.70	20
cis-1,3-Dichloropropene	25.0	24.3	25.6	97.1	102	79.0-123			5.13	20
trans-1,3-Dichloropropene	25.0	23.5	25.4	94.1	102	74.0-127			7.77	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.7	82.6	86.7	55.0-134			4.88	20
2,2-Dichloropropane	25.0	22.5	24.4	89.9	97.7	60.0-125			8.39	20

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) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	24.5	26.8	97.9	107	59.0-133			9.12	20
Ethylbenzene	25.0	19.1	20.8	76.3	83.4	77.0-120	J4		8.88	20
Hexachloro-1,3-butadiene	25.0	19.7	21.5	78.7	86.0	64.0-131			8.79	20
2-Hexanone	125	129	138	103	110	58.0-147			6.93	20
n-Hexane	25.0	18.1	19.2	72.5	76.7	56.0-124			5.68	20
Iodomethane	125	124	130	99.6	104	57.0-140			4.14	20
Isopropylbenzene	25.0	19.9	22.1	79.8	88.2	75.0-120			10.1	20
p-Isopropyltoluene	25.0	20.3	22.0	81.2	88.0	74.0-126			8.10	20
2-Butanone (MEK)	125	147	155	117	124	37.0-158			5.35	20
Methylene Chloride	25.0	19.4	20.7	77.4	82.9	66.0-121			6.86	20
4-Methyl-2-pentanone (MIBK)	125	150	159	120	127	59.0-143			5.43	20
Methyl tert-butyl ether	25.0	23.6	25.4	94.5	101	64.0-123			7.18	20
Naphthalene	25.0	18.2	19.8	72.8	79.3	62.0-128			8.60	20
n-Propylbenzene	25.0	20.3	22.4	81.2	89.4	79.0-120			9.70	20
Styrene	25.0	21.2	23.1	84.7	92.6	78.0-124			8.85	20
1,1,1,2-Tetrachloroethane	25.0	20.8	22.5	83.0	90.0	75.0-122			8.03	20
1,1,2,2-Tetrachloroethane	25.0	20.1	22.0	80.6	87.9	71.0-122			8.68	20
1,1,2-Trichlorotrifluoroethane	25.0	23.5	24.9	94.2	99.7	61.0-136			5.67	20
Tetrachloroethene	25.0	19.0	20.7	76.1	82.8	70.0-127			8.45	20
Toluene	25.0	20.2	21.4	80.8	85.7	77.0-120			5.88	20
1,2,3-Trichlorobenzene	25.0	17.2	19.0	68.7	75.9	61.0-133			9.91	20
1,2,4-Trichlorobenzene	25.0	18.9	19.9	75.7	79.7	69.0-129			5.10	20
1,1,1-Trichloroethane	25.0	22.1	23.7	88.2	94.9	68.0-122			7.33	20
1,1,2-Trichloroethane	25.0	19.8	21.4	79.4	85.8	78.0-120			7.72	20
Trichloroethene	25.0	20.6	21.5	82.6	86.0	78.0-120			4.03	20
Trichlorofluoromethane	25.0	26.2	26.7	105	107	56.0-137			1.58	20
1,2,3-Trichloropropane	25.0	20.6	22.2	82.3	88.9	72.0-124			7.68	20
1,2,4-Trimethylbenzene	25.0	20.3	22.1	81.3	88.4	75.0-120			8.40	20
1,2,3-Trimethylbenzene	25.0	21.1	22.7	84.3	91.0	75.0-120			7.58	20
1,3,5-Trimethylbenzene	25.0	20.1	21.9	80.4	87.5	75.0-120			8.49	20
Vinyl acetate	125	139	149	111	119	46.0-160			6.86	20
Vinyl chloride	25.0	27.2	26.7	109	107	64.0-133			2.02	20
Xylenes, Total	75.0	56.9	62.9	75.9	83.9	77.0-120	J4		10.0	20
(S) Toluene-d8				110	110	80.0-120				
(S) Dibromofluoromethane				104	104	76.0-123				
(S) 4-Bromofluorobenzene				97.6	99.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	3.09	86.2	89.9	66.5	69.5	1	10.0-139			4.23	25
Acrylonitrile	125	U	153	153	122	122	1	46.0-159			0.0900	23
Benzene	25.0	U	24.1	23.1	96.4	92.3	1	34.0-147			4.35	20
Bromobenzene	25.0	U	25.0	23.7	100	94.6	1	51.0-137			5.55	20
Bromodichloromethane	25.0	U	27.2	26.1	109	105	1	52.0-135			3.82	20
Bromochloromethane	25.0	U	25.7	23.2	103	93.0	1	53.0-138			10.0	20
Bromoform	25.0	U	26.0	25.6	104	102	1	50.0-146			1.53	20
Bromomethane	25.0	U	26.4	24.1	106	96.3	1	10.0-160			9.34	23
n-Butylbenzene	25.0	U	25.5	25.5	102	102	1	50.0-144			0.0200	20
sec-Butylbenzene	25.0	U	24.3	23.3	97.1	93.4	1	48.0-143			3.92	20
tert-Butylbenzene	25.0	U	24.3	23.4	97.1	93.7	1	50.0-142			3.54	20
Carbon disulfide	25.0	U	20.2	18.6	80.7	74.5	1	10.0-147			8.03	20
Carbon tetrachloride	25.0	U	25.5	24.5	102	97.9	1	41.0-138			4.30	20
Chlorobenzene	25.0	U	23.9	22.5	95.4	89.9	1	52.0-141			5.93	20
Chlorodibromomethane	25.0	U	25.8	24.8	103	99.2	1	54.0-142			3.91	20
Chloroethane	25.0	U	27.7	26.2	111	105	1	23.0-160			5.47	20
2-Chloroethyl vinyl ether	125	U	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40
Chloroform	25.0	U	26.6	24.6	106	98.3	1	50.0-139			7.76	20
Chloromethane	25.0	U	27.2	25.5	109	102	1	14.0-151			6.48	20
2-Chlorotoluene	25.0	U	24.5	23.4	97.8	93.7	1	48.0-142			4.27	20
4-Chlorotoluene	25.0	U	24.5	23.2	98.0	92.7	1	52.0-139			5.61	20
1,2-Dibromo-3-Chloropropane	25.0	U	23.4	23.9	93.5	95.4	1	49.0-144			1.99	24
1,2-Dibromoethane	25.0	U	24.3	23.6	97.3	94.2	1	54.0-140			3.22	20
Dibromomethane	25.0	U	26.1	25.7	104	103	1	53.0-138			1.67	20
1,2-Dichlorobenzene	25.0	U	24.2	24.0	96.9	95.9	1	56.0-139			1.05	20
1,3-Dichlorobenzene	25.0	U	23.4	22.7	93.7	90.9	1	50.0-141			3.01	20
1,4-Dichlorobenzene	25.0	U	23.9	23.2	95.5	92.9	1	53.0-136			2.73	20
Dichlorodifluoromethane	25.0	U	30.3	28.2	121	113	1	20.0-160			7.15	21
1,1-Dichloroethane	25.0	U	27.3	25.4	109	101	1	47.0-143			7.40	20
1,2-Dichloroethane	25.0	U	28.7	28.0	115	112	1	47.0-141			2.66	20
1,1-Dichloroethene	25.0	U	26.2	25.1	105	100	1	31.0-148			4.37	20
cis-1,2-Dichloroethene	25.0	2.63	28.1	25.6	102	91.8	1	43.0-142			9.27	20
trans-1,2-Dichloroethene	25.0	U	23.6	21.6	94.3	86.4	1	36.0-141			8.76	20
1,2-Dichloropropane	25.0	U	27.7	26.8	111	107	1	51.0-141			3.38	20
1,1-Dichloropropene	25.0	U	24.4	22.9	97.6	91.4	1	42.0-146			6.48	20
1,3-Dichloropropane	25.0	U	25.3	24.6	101	98.3	1	58.0-139			2.86	20
cis-1,3-Dichloropropene	25.0	U	25.9	25.3	104	101	1	53.0-139			2.63	20
trans-1,3-Dichloropropene	25.0	U	27.4	26.6	110	106	1	51.0-143			3.10	20
trans-1,4-Dichloro-2-butene	25.0	U	22.4	21.0	89.5	84.1	1	40.0-150			6.21	21
2,2-Dichloropropane	25.0	U	27.8	25.5	111	102	1	43.0-139			8.81	20

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



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	U	31.4	29.8	126	119	1	44.0-144			5.01	20
Ethylbenzene	25.0	U	23.2	22.1	92.8	88.2	1	42.0-147			5.08	20
Hexachloro-1,3-butadiene	25.0	U	23.4	24.0	93.5	96.1	1	44.0-146			2.80	21
2-Hexanone	125	U	119	124	94.8	98.9	1	36.0-145			4.16	23
n-Hexane	25.0	0.306	20.9	20.2	82.3	79.5	1	13.0-145			3.41	20
Iodomethane	125	U	148	135	118	108	1	30.0-151			9.18	20
Isopropylbenzene	25.0	U	24.3	23.3	97.1	93.3	1	48.0-141			3.96	20
p-Isopropyltoluene	25.0	U	24.1	23.4	96.4	93.5	1	49.0-146			3.02	20
2-Butanone (MEK)	125	U	115	122	92.2	97.3	1	12.0-149			5.41	24
Methylene Chloride	25.0	U	24.2	22.6	96.7	90.6	1	42.0-135			6.50	20
4-Methyl-2-pentanone (MIBK)	125	U	161	168	129	134	1	44.0-160			3.97	22
Methyl tert-butyl ether	25.0	U	30.1	28.4	120	114	1	42.0-142			5.67	20
Naphthalene	25.0	U	20.9	23.3	83.5	93.4	1	42.0-146			11.2	24
n-Propylbenzene	25.0	U	24.6	23.4	98.5	93.5	1	47.0-144			5.12	20
Styrene	25.0	U	25.2	23.3	101	93.2	1	47.0-147			7.65	20
1,1,1,2-Tetrachloroethane	25.0	U	25.6	24.5	102	98.0	1	52.0-140			4.18	20
1,1,2,2-Tetrachloroethane	25.0	U	25.5	25.9	102	104	1	46.0-149			1.39	20
1,1,2-Trichlorotrifluoroethane	25.0	U	28.6	26.8	114	107	1	40.0-151			6.40	21
Tetrachloroethene	25.0	0.566	23.5	21.8	91.9	84.9	1	38.0-147			7.73	20
Toluene	25.0	U	24.2	22.7	96.6	90.8	1	42.0-141			6.21	20
1,2,3-Trichlorobenzene	25.0	U	19.3	21.2	77.2	84.7	1	45.0-145			9.27	22
1,2,4-Trichlorobenzene	25.0	U	20.9	21.7	83.8	86.7	1	49.0-147			3.51	21
1,1,1-Trichloroethane	25.0	U	27.0	25.4	108	102	1	46.0-140			5.94	20
1,1,2-Trichloroethane	25.0	U	24.2	23.8	97.0	95.3	1	54.0-139			1.80	20
Trichloroethene	25.0	0.355	24.4	23.3	96.4	91.9	1	32.0-156			4.69	20
Trichlorofluoromethane	25.0	U	30.6	28.3	122	113	1	32.0-152			7.70	20
1,2,3-Trichloropropane	25.0	U	25.8	25.6	103	102	1	54.0-143			0.930	21
1,2,4-Trimethylbenzene	25.0	U	23.9	23.0	95.5	92.0	1	41.0-146			3.76	20
1,2,3-Trimethylbenzene	25.0	U	24.5	24.4	97.9	97.4	1	48.0-138			0.420	20
1,3,5-Trimethylbenzene	25.0	U	24.2	23.2	96.8	92.6	1	44.0-143			4.44	20
Vinyl acetate	125	U	170	170	136	136	1	30.0-160			0.0400	20
Vinyl chloride	25.0	5.22	35.1	32.8	119	110	1	24.0-153			6.56	20
Xylenes, Total	75.0	U	69.6	65.6	92.8	87.5	1	41.0-148			5.92	20
(S) Toluene-d8					111	108		80.0-120				
(S) Dibromofluoromethane					105	102		76.0-123				
(S) 4-Bromofluorobenzene					101	97.0		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
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.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

<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		

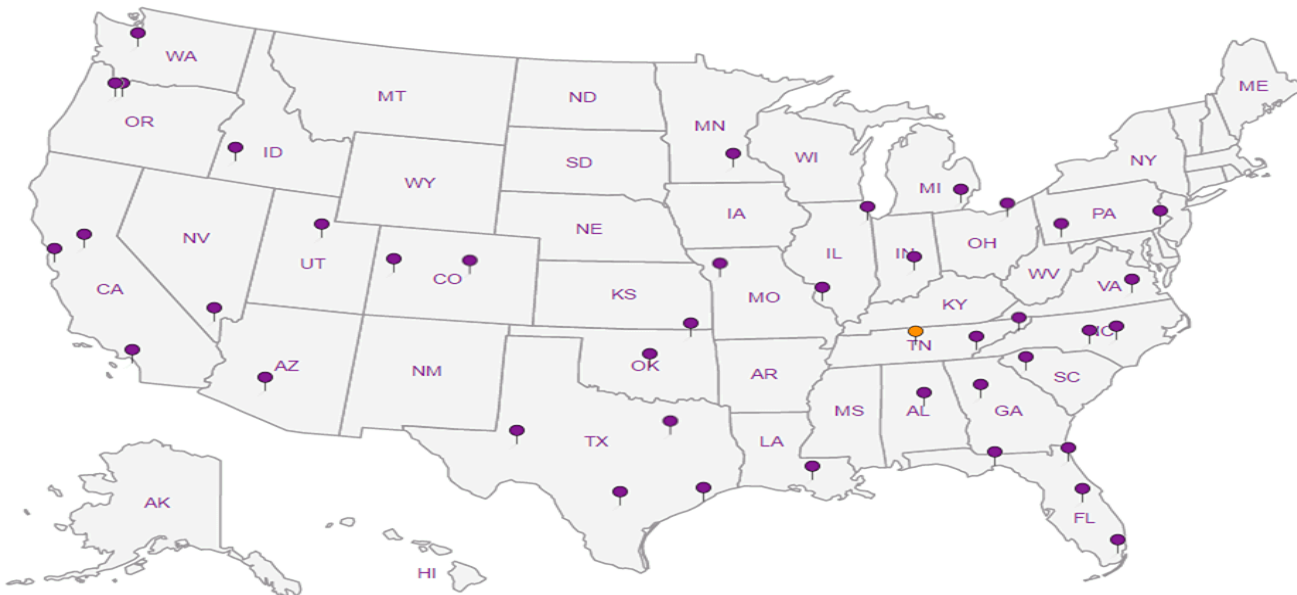
## Third Party & Federal Accreditations

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.**





**PES Environmental, Inc.- WA**  
 1215 Fourth Ave., Suite 1350  
 Seattle, WA 98161

Billing Information:  
 Attn: Accounts Payable  
 1215 Fourth Ave., Ste. 1350  
 Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: bhdaldeman@pesenv.com

Project Description: **American Linen Supply**

City/State Collected:

Phone: 206-529-3980  
 Fax: 206-529-3985


Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
**Karsten Springstead**

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  
  
 Immediately Packed on ice: N  Y

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day  
 Date Results Needed

Pres. Chk	Analysis / Container / Preservative					
	*NO3,Cl,SO4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl

Chain of Custody Page 1 of 1



YOUR LAB OF CHOICE

32065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



L# **1897678**

**C235**

Acctnum: PESENVSWA  
 Template: T121414  
 Prelogin: P592684  
 TSR: 110 - Brian Ford  
 PB: 3-13-17 gm

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO3,Cl,SO4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
MW125-032217	Grab	GW	22.5	3-22-17	835	6		X			X			-01
BB-8-032217	Grab	GW	35	3-22-17	1020	9	X		X	X	X	X		-02
MW113-032217	Grab	GW	75	3-22-17	1205	9	X		X	X	X	X		-03
MW115-032217	Grab	GW	40	3-22-17	1225	9	X		X	X	X	X		-04
MW112-032217	Grab	GW	70	3-22-17	1405	9	X		X	X	X	X		-05
G12-032217	Grab	GW	9	3-22-17	1435	4					X			-06
JRP BLANK-032217		GW	-	-	-	1					X			-07
		GW												
		GW												
		GW												

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

Remarks: \*Nitrate has a 48 hour hold time

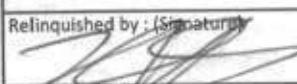
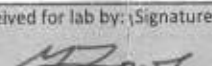
pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **717690117100**

Sample Receipt Checklist

COC Seal Present/Intact:  NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) 	Date: <b>3-22-17</b>	Time: <b>1530</b>	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C <b>22.4</b> Bottles Received: <b>46</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: <b>3-23-17</b> Time: <b>0900</b> Hold: Condition: NCF / <input checked="" type="checkbox"/> OK

## MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 22, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L897678

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Six (6) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, Seattle, Washington, on March 22, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897678. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897678 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## Method Blank Results

### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections are reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Low level acetone detections were reported in all associated samples. **All acetone results in associated samples are qualified as non-detect (U) due to blank contamination.**

### *NWTPH-Gx Method:*

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

### *USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

## Trip Blank Results

### *USEPA Method 8260C (VOCs) and NWTPH-Gx:*

A trip blank was collected and analyzed. The target analytes were not detected in the trip blank at or above the RDL with the following discussion:

- A low level acetone detection was reported in the trip blank (at 3.84 µg/L). No action was taken other than to note that low level acetone detection was also reported in the

method blank (at 2.11 µg/L) and associated samples. Acetone detections in the associated samples are qualified as not detected (U) due to blank contamination.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

#### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

#### *NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD or MS/MSD results for precision data.

#### *Method RSK-175:*

Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) within the analytical batch. No action was taken in this case. Refer to LCS/LCSD results for precision data.

#### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

#### *General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample BB-8-032217. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples, and on client sample BB-8-032217. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.



*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch and on sample MW112-032217. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

#### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

#### *NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

#### *USEPA Method 8260C (VOCs):*

LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) spike compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within and MS/MSD recoveries are within criteria for these compounds.

#### *NWTPH-Gx Method:*

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

#### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

#### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

#### *General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

### **Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.

*NWTPH-Gx Method:*

Matrix spike analysis was not performed on sample MW125-032217. The MS/MSD % Rs and RPD is acceptable and within laboratory control limit criteria for water samples.

*Method RSK-175:*

Matrix spike analysis was not performed for the dissolved gas analysis method. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on sample MW112-032217. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range	U		31.6	100	1	03/30/2017 00:57	WG963909
Organics-NWTPH							
(S) a,a,a-Trifluorotoluene(FID) 97.5				77.0-122		03/30/2017 00:57	WG963909

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.20	U B J	1.05	25.0	1	03/28/2017 16:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:29	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 16:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 16:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 16:29	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:29	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:29	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 16:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 16:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 16:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 16:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 16:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:29	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 16:29	WG964116
cis-1,2-Dichloroethene	0.341	J J	0.0933	0.500	1	03/28/2017 16:29	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 16:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 16:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 16:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 16:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 16:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:29	WG964116

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

JC 4/18/17





Collected date/time: 03/22/17 08:35

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 16:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 16:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:29	WG964116
Tetrachloroethene	0.285	J	0.199	0.500	1	03/28/2017 16:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 16:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 16:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:29	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 16:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:29	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 16:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 16:29	WG964116
(S) 4-Bromofluorobenzene	98.6			80.0-120		03/28/2017 16:29	WG964116

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

*Jc 4/18/17*





## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	254000		2710	20000	1	03/25/2017 08:17	<a href="#">WG963928</a>

Cp

Tc

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	7870		51.9	1000	1	03/23/2017 12:28	<a href="#">WG963516</a>
Nitrate	3170		22.7	100	1	03/23/2017 12:28	<a href="#">WG963516</a>
Sulfate	41500		77.4	5000	1	03/23/2017 12:28	<a href="#">WG963516</a>

Ss

Cn

Sr

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2250		102	1000	1	03/27/2017 19:12	<a href="#">WG964268</a>

Qc

Gl

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	125		15.0	100	1	03/27/2017 02:33	<a href="#">WG963864</a>
Manganese	70.5		0.250	5.00	1	03/27/2017 02:33	<a href="#">WG963864</a>

Al

Sc

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	0.412	J U	0.287	0.678	1	03/23/2017 15:16	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 15:16	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 15:16	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	2.52	U B J	1.05	25.0	1	03/28/2017 16:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 16:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 16:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 16:49	<a href="#">WG964116</a>

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4/18/17





Collected date/time: 03/22/17 10:20

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 16:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 16:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 16:49	WG964116
cis-1,2-Dichloroethene	3.10		0.0933	0.500	1	03/28/2017 16:49	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 16:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 16:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 16:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 16:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 16:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 16:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 16:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 16:49	WG964116
Diisopropyl ether	U		0.0924	0.500	1	03/28/2017 16:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 16:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 16:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 16:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 16:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 16:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 16:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 16:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 16:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 16:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 16:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 16:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 16:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 16:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 16:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 16:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 16:49	WG964116
Tetrachloroethene	30.4		0.199	0.500	1	03/28/2017 16:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 16:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 16:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 16:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 16:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 16:49	WG964116
Trichloroethene	4.95		0.153	0.500	1	03/28/2017 16:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 16:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 16:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 16:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 16:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 16:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 16:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 16:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 16:49	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 16:49	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 16:49	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/28/2017 16:49	WG964116

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JC  
4/18/17



MW113-032217

Collected date/time: 03/22/17 12:05

## SAMPLE RESULTS - 03

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ONE LAB. NATIONWIDE.



## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	594000		2710	20000	1	03/25/2017 10:48	<a href="#">WG963928</a>

Cp

Tc

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	65500		51.9	1000	1	03/23/2017 12:54	<a href="#">WG963516</a>
Nitrate	29.5	J ↓	22.7	100	1	03/23/2017 12:54	<a href="#">WG963516</a>
Sulfate	55400		77.4	5000	1	03/23/2017 12:54	<a href="#">WG963516</a>

Ss

Cn

Sr

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	27000		102	1000	1	03/27/2017 19:35	<a href="#">WG964268</a>

Qc

Gl

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	7460		15.0	100	1	03/27/2017 02:36	<a href="#">WG963864</a>
Manganese	757		0.250	5.00	1	03/27/2017 02:36	<a href="#">WG963864</a>

Al

Sc

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	3530		2.87	6.78	10	03/27/2017 16:06	<a href="#">WG964586</a>
Ethane	U		0.296	1.29	1	03/23/2017 16:31	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 16:31	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	3.28	U B J	1.05	25.0	1	03/28/2017 17:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:09	<a href="#">WG964116</a>
Benzene	2.60		0.0896	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:09	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:09	<a href="#">WG964116</a>

Jc  
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MW113-032217

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 03/22/17 12:05

L897678

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:09	WG964116	Cp
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:09	WG964116	Tc
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:09	WG964116	Ss
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:09	WG964116	Cn
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:09	WG964116	Sr
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:09	WG964116	Qc
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:09	WG964116	Gl
1,1-Dichloroethene	10.7		0.188	0.500	1	03/28/2017 17:09	WG964116	Al
cis-1,2-Dichloroethene	7280		18.7	100	200	03/29/2017 17:55	WG964116	Sc
trans-1,2-Dichloroethene	25.4		0.152	0.500	1	03/28/2017 17:09	WG964116	
1,2-Dichloropropane	0.240	J J	0.190	0.500	1	03/28/2017 17:09	WG964116	
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:09	WG964116	
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:09	WG964116	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:09	WG964116	
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:09	WG964116	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:09	WG964116	
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:09	WG964116	
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:09	WG964116	
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:09	WG964116	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:09	WG964116	
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:09	WG964116	
n-Hexane	U		0.305	1.00	1	03/28/2017 17:09	WG964116	
Iodomethane	U		0.377	2.50	1	03/28/2017 17:09	WG964116	
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:09	WG964116	
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:09	WG964116	
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:09	WG964116	
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:09	WG964116	
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:09	WG964116	
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:09	WG964116	
Naphthalene	U		0.174	0.500	1	03/28/2017 17:09	WG964116	
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:09	WG964116	
Styrene	U		0.117	0.500	1	03/28/2017 17:09	WG964116	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:09	WG964116	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:09	WG964116	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:09	WG964116	
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:09	WG964116	
Toluene	U		0.412	1.00	1	03/28/2017 17:09	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:09	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:09	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:09	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:09	WG964116	
Trichloroethene	27.1		0.153	0.500	1	03/28/2017 17:09	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:09	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:09	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:09	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:09	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:09	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:09	WG964116	
Vinyl chloride	63.5		0.118	0.500	1	03/28/2017 17:09	WG964116	
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:09	WG964116	
(S) Toluene-d8	109			80.0-120		03/29/2017 17:55	WG964116	
(S) Toluene-d8	110			80.0-120		03/28/2017 17:09	WG964116	
(S) Dibromofluoromethane	101			76.0-123		03/29/2017 17:55	WG964116	
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 17:09	WG964116	
(S) 4-Bromofluorobenzene	99.7			80.0-120		03/28/2017 17:09	WG964116	
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:55	WG964116	

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Collected date/time: 03/22/17 12:25

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## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	417000		2710	20000	1	03/25/2017 10:55	<a href="#">WG963928</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	28500		51.9	1000	1	03/23/2017 13:19	<a href="#">WG963516</a>
Nitrate	U		22.7	100	1	03/23/2017 13:19	<a href="#">WG963516</a>
Sulfate	35900		77.4	5000	1	03/23/2017 13:19	<a href="#">WG963516</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7690		102	1000	1	03/27/2017 19:51	<a href="#">WG964268</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5690		15.0	100	1	03/27/2017 02:39	<a href="#">WG963864</a>
Manganese	1320		0.250	5.00	1	03/27/2017 02:39	<a href="#">WG963864</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	215		0.287	0.678	1	03/23/2017 17:21	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 17:21	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 17:21	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.67	U B J	1.05	25.0	1	03/28/2017 17:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:29	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:29	<a href="#">WG964116</a>

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Jc  
4/18/17





Collected date/time: 03/22/17 12:25

L897678

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 17:29	WG964116
cis-1,2-Dichloroethene	0.643		0.0933	0.500	1	03/29/2017 16:55	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 17:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 17:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 17:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 17:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 17:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 17:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:29	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:29	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 17:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:29	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 17:29	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:29	WG964116
Vinyl chloride	15.7		0.118	0.500	1	03/28/2017 17:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:29	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 16:55	WG964116
(S) Toluene-d8	110			80.0-120		03/28/2017 17:29	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 17:29	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/29/2017 16:55	WG964116
(S) 4-Bromofluorobenzene	99.7			80.0-120		03/28/2017 17:29	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/29/2017 16:55	WG964116

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

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	188000		2710	20000	1	03/25/2017 08:52	<a href="#">WG963928</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10600		51.9	1000	1	03/23/2017 13:58	<a href="#">WG963516</a>
Nitrate	U		22.7	100	1	03/23/2017 13:58	<a href="#">WG963516</a>
Sulfate	45200		77.4	5000	1	03/23/2017 13:58	<a href="#">WG963516</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1350		102	1000	1	03/27/2017 20:08	<a href="#">WG964268</a>

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	238		15.0	100	1	03/26/2017 22:51	<a href="#">WG963864</a>
Manganese	41.1		0.250	5.00	1	03/26/2017 22:51	<a href="#">WG963864</a>

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	4.89		0.287	0.678	1	03/23/2017 17:37	<a href="#">WG963578</a>
Ethane	U		0.296	1.29	1	03/23/2017 17:37	<a href="#">WG963578</a>
Ethene	U		0.422	1.27	1	03/23/2017 17:37	<a href="#">WG963578</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.80	<i>U</i> <u>B J</u>	1.05	25.0	1	03/28/2017 17:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 17:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 17:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 17:49	<a href="#">WG964116</a>

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4/18/17





Collected date/time: 03/22/17 14:05

L897678

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	03/28/2017 17:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 17:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 17:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 17:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 17:49	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 17:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 17:49	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 17:49	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/29/2017 17:15	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 17:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 17:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 17:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 17:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 17:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 17:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 17:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 17:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 17:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 17:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 17:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 17:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 17:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 17:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 17:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 17:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 17:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 17:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 17:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 17:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 17:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 17:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 17:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 17:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 17:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 17:49	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 17:49	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 17:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 17:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 17:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 17:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 17:49	WG964116
Trichloroethene	U		0.153	0.500	1	03/28/2017 17:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 17:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 17:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 17:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 17:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 17:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 17:49	WG964116
Vinyl chloride	U		0.118	0.500	1	03/28/2017 17:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 17:49	WG964116
(S) Toluene-d8	109			80.0-120		03/29/2017 17:15	WG964116
(S) Toluene-d8	112			80.0-120		03/28/2017 17:49	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/28/2017 17:49	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/29/2017 17:15	WG964116
(S) 4-Bromofluorobenzene	97.6			80.0-120		03/28/2017 17:49	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:15	WG964116

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

*Handwritten signature and date: Jc 4/18/17*





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.41	U BJ	1.05	25.0	1	03/28/2017 18:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:09	WG964116
Benzene	0.298	J J	0.0896	0.500	1	03/28/2017 18:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 18:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 18:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 18:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:09	WG964116
Chloroethane	0.583		0.141	0.500	1	03/28/2017 18:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 18:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 18:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:09	WG964116
1,1-Dichloroethene	2.23		0.188	0.500	1	03/28/2017 18:09	WG964116
cis-1,2-Dichloroethene	130		0.0933	0.500	1	03/28/2017 18:09	WG964116
trans-1,2-Dichloroethene	2.85		0.152	0.500	1	03/28/2017 18:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 18:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 18:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 18:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 18:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 18:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:09	WG964116

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

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G12-032217

## SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 03/22/17 14:35

L897678

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:09	WG964116	1 Cp
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:09	WG964116	2 Tc
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:09	WG964116	3 Ss
Toluene	U		0.412	1.00	1	03/28/2017 18:09	WG964116	4 Cn
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:09	WG964116	5 Sr
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:09	WG964116	6 Qc
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:09	WG964116	7 Gl
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:09	WG964116	8 Al
Trichloroethene	0.474	J J	0.153	0.500	1	03/28/2017 18:09	WG964116	9 Sc
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:09	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:09	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:09	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:09	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:09	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:09	WG964116	
Vinyl chloride	41.9		0.118	0.500	1	03/28/2017 18:09	WG964116	
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:09	WG964116	
(S) Toluene-d8	111			80.0-120		03/28/2017 18:09	WG964116	
(S) Dibromofluoromethane	104			76.0-123		03/28/2017 18:09	WG964116	
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:09	WG964116	

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Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/30/2017 02:26	WG963909
(S) a,a,a-Trifluorotoluene(FID) 98.2				77.0-122		03/30/2017 02:26	WG963909

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- GI
- AI
- Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.84	<del>X</del> B J	1.05	25.0	1	03/28/2017 13:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 13:09	WG964116
Benzene	U	Je	0.0896	0.500	1	03/28/2017 13:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 13:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 13:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 13:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 13:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 13:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 13:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 13:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 13:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 13:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 13:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 13:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 13:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 13:09	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 13:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 13:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 13:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 13:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 13:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 13:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 13:09	WG964116
Dibromomethane	U		0.117	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 13:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 13:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 13:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 13:09	WG964116
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 13:09	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 13:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 13:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 13:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 13:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 13:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 13:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 13:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 13:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 13:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 13:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 13:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 13:09	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 13:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 13:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 13:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 13:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 13:09	WG964116

AT 118/17



Collected date/time: 03/22/17 00:00

L897678

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
Methylene Chloride	U		1.07	2.50	1	03/28/2017 13:09	WG964116	<sup>1</sup> Cp
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 13:09	WG964116	<sup>2</sup> Tc
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 13:09	WG964116	<sup>3</sup> Ss
Naphthalene	U		0.174	0.500	1	03/28/2017 13:09	WG964116	<sup>4</sup> Cn
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 13:09	WG964116	<sup>5</sup> Sr
Styrene	U		0.117	0.500	1	03/28/2017 13:09	WG964116	<sup>6</sup> Qc
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 13:09	WG964116	<sup>7</sup> Gl
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 13:09	WG964116	<sup>8</sup> Al
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 13:09	WG964116	<sup>9</sup> Sc
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 13:09	WG964116	
Toluene	U		0.412	1.00	1	03/28/2017 13:09	WG964116	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 13:09	WG964116	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 13:09	WG964116	
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 13:09	WG964116	
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 13:09	WG964116	
Trichloroethene	U		0.153	0.500	1	03/28/2017 13:09	WG964116	
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 13:09	WG964116	
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 13:09	WG964116	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 13:09	WG964116	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 13:09	WG964116	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 13:09	WG964116	
Vinyl acetate	U		0.645	2.50	1	03/28/2017 13:09	WG964116	
Vinyl chloride	U		0.118	0.500	1	03/28/2017 13:09	WG964116	
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 13:09	WG964116	
(S) Toluene-d8	110			80.0-120		03/28/2017 13:09	WG964116	
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 13:09	WG964116	
(S) 4-Bromofluorobenzene	99.8			80.0-120		03/28/2017 13:09	WG964116	

*Handwritten signature and date: J. A. 4/18/17*



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L897952  
Samples Received: 03/24/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



## MW110-032317 L897952-01 GW

Collected by  
C. DeBoer  
Collected date/time  
03/23/17 10:55  
Received date/time  
03/24/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 10:18	03/25/17 10:18	AMC
Wet Chemistry by Method 9056A	WG963944	1	03/24/17 13:08	03/24/17 13:08	SAM
Wet Chemistry by Method 9056A	WG964927	5	03/29/17 17:40	03/29/17 17:40	KCF
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 18:19	03/28/17 18:19	SJM
Metals (ICPMS) by Method 6020	WG964085	1	03/29/17 17:12	03/29/17 21:14	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG964587	1	03/28/17 01:15	03/28/17 01:15	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 18:29	03/28/17 18:29	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	50	03/29/17 18:15	03/29/17 18:15	BMB

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

## MW103-032317 L897952-02 GW

Collected by  
C. DeBoer  
Collected date/time  
03/23/17 12:45  
Received date/time  
03/24/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG963928	1	03/25/17 10:24	03/25/17 10:24	AMC
Wet Chemistry by Method 9056A	WG963944	1	03/24/17 13:39	03/24/17 13:39	SAM
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 18:38	03/28/17 18:38	SJM
Metals (ICPMS) by Method 6020	WG964085	1	03/29/17 17:12	03/29/17 22:07	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG964587	1	03/28/17 01:48	03/28/17 01:48	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 18:49	03/28/17 18:49	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	10	03/29/17 18:35	03/29/17 18:35	BMB

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW111-032317 L897952-03 GW

Collected by  
C. DeBoer  
Collected date/time  
03/23/17 12:55  
Received date/time  
03/24/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964048	1	03/25/17 13:47	03/25/17 13:47	AMC
Wet Chemistry by Method 9056A	WG963944	1	03/24/17 14:10	03/24/17 14:10	SAM
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 18:56	03/28/17 18:56	SJM
Metals (ICPMS) by Method 6020	WG964085	1	03/29/17 17:12	03/29/17 22:11	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG964587	1	03/28/17 02:22	03/28/17 02:22	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/28/17 19:09	03/28/17 19:09	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964116	1	03/29/17 17:35	03/29/17 17:35	BMB

## R-MW5-032317 L897952-04 GW

Collected by  
C. DeBoer  
Collected date/time  
03/23/17 14:35  
Received date/time  
03/24/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964048	1	03/25/17 14:04	03/25/17 14:04	AMC
Wet Chemistry by Method 9056A	WG963944	1	03/24/17 14:41	03/24/17 14:41	SAM
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 19:09	03/28/17 19:09	SJM
Metals (ICPMS) by Method 6020	WG964085	1	03/29/17 17:12	03/29/17 22:24	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG964587	1	03/28/17 02:38	03/28/17 02:38	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964125	1	03/27/17 20:48	03/27/17 20:48	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964125	1	03/30/17 01:43	03/30/17 01:43	JAH





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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	425000		2710	20000	1	03/25/2017 10:18	<a href="#">WG963928</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	36200		51.9	1000	1	03/24/2017 13:08	<a href="#">WG963944</a>
Nitrate	652		22.7	100	1	03/24/2017 13:08	<a href="#">WG963944</a>
Sulfate	108000		387	25000	5	03/29/2017 17:40	<a href="#">WG964927</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7980		102	1000	1	03/28/2017 18:19	<a href="#">WG964476</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	94.8	J	15.0	100	1	03/29/2017 21:14	<a href="#">WG964085</a>
Manganese	3900	V	0.250	5.00	1	03/29/2017 21:14	<a href="#">WG964085</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	125		0.287	0.678	1	03/28/2017 01:15	<a href="#">WG964587</a>
Ethane	1.21	J	0.296	1.29	1	03/28/2017 01:15	<a href="#">WG964587</a>
Ethene	U		0.422	1.27	1	03/28/2017 01:15	<a href="#">WG964587</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.62	B J	1.05	25.0	1	03/28/2017 18:29	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:29	<a href="#">WG964116</a>
Benzene	0.330	J	0.0896	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:29	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:29	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:29	<a href="#">WG964116</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloroethene	5.23		0.188	0.500	1	03/28/2017 18:29	WG964116
cis-1,2-Dichloroethene	644		4.66	25.0	50	03/29/2017 18:15	WG964116
trans-1,2-Dichloroethene	4.72		0.152	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 18:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 18:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 18:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 18:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 18:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:29	WG964116
Tetrachloroethene	1070		9.95	25.0	50	03/29/2017 18:15	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 18:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:29	WG964116
Trichloroethene	389		7.65	25.0	50	03/29/2017 18:15	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:29	WG964116
Vinyl chloride	1.45		0.118	0.500	1	03/28/2017 18:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:29	WG964116
(S) Toluene-d8	98.4			80.0-120		03/28/2017 18:29	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 18:15	WG964116
(S) Dibromofluoromethane	99.5			76.0-123		03/29/2017 18:15	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 18:29	WG964116
(S) 4-Bromofluorobenzene	97.8			80.0-120		03/28/2017 18:29	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 18:15	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	337000		2710	20000	1	03/25/2017 10:24	<a href="#">WG963928</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	48400		51.9	1000	1	03/24/2017 13:39	<a href="#">WG963944</a>
Nitrate	U		22.7	100	1	03/24/2017 13:39	<a href="#">WG963944</a>
Sulfate	36300		77.4	5000	1	03/24/2017 13:39	<a href="#">WG963944</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1970		102	1000	1	03/28/2017 18:38	<a href="#">WG964476</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1680		15.0	100	1	03/29/2017 22:07	<a href="#">WG964085</a>
Manganese	1090		0.250	5.00	1	03/29/2017 22:07	<a href="#">WG964085</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	433		0.287	0.678	1	03/28/2017 01:48	<a href="#">WG964587</a>
Ethane	82.5		0.296	1.29	1	03/28/2017 01:48	<a href="#">WG964587</a>
Ethene	34.1		0.422	1.27	1	03/28/2017 01:48	<a href="#">WG964587</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.87	<u>B J</u>	1.05	25.0	1	03/28/2017 18:49	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:49	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Chlorobenzene	U	<u>J4</u>	0.140	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Chloroethane	0.301	<u>J</u>	0.141	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:49	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:49	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:49	<a href="#">WG964116</a>





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloroethane	0.195	J	0.114	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloroethene	3.69		0.188	0.500	1	03/28/2017 18:49	WG964116
cis-1,2-Dichloroethene	240		0.933	5.00	10	03/29/2017 18:35	WG964116
trans-1,2-Dichloroethene	0.405	J	0.152	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 18:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 18:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 18:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 18:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 18:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:49	WG964116
Tetrachloroethene	U		1.99	5.00	10	03/29/2017 18:35	WG964116
Toluene	0.464	J	0.412	1.00	1	03/28/2017 18:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:49	WG964116
Trichloroethene	23.1		0.153	0.500	1	03/28/2017 18:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:49	WG964116
Vinyl chloride	157		0.118	0.500	1	03/28/2017 18:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:49	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 18:35	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 18:49	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/29/2017 18:35	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/28/2017 18:49	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:49	WG964116
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 18:35	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	179000		2710	20000	1	03/25/2017 13:47	<a href="#">WG964048</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22900		51.9	1000	1	03/24/2017 14:10	<a href="#">WG963944</a>
Nitrate	68.0	J	22.7	100	1	03/24/2017 14:10	<a href="#">WG963944</a>
Sulfate	8250		77.4	5000	1	03/24/2017 14:10	<a href="#">WG963944</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	918	J	102	1000	1	03/28/2017 18:56	<a href="#">WG964476</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	391		15.0	100	1	03/29/2017 22:11	<a href="#">WG964085</a>
Manganese	151		0.250	5.00	1	03/29/2017 22:11	<a href="#">WG964085</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	136		0.287	0.678	1	03/28/2017 02:22	<a href="#">WG964587</a>
Ethane	5.74		0.296	1.29	1	03/28/2017 02:22	<a href="#">WG964587</a>
Ethene	4.17		0.422	1.27	1	03/28/2017 02:22	<a href="#">WG964587</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.09	B J	1.05	25.0	1	03/28/2017 19:09	<a href="#">WG964116</a>
Acrylonitrile	U		0.873	2.50	1	03/28/2017 19:09	<a href="#">WG964116</a>
Benzene	U		0.0896	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Bromoform	U		0.186	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
2-Chloroethyl vinyl ether	U	J6	0.877	2.50	1	03/28/2017 19:09	<a href="#">WG964116</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 19:09	<a href="#">WG964116</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 19:09	<a href="#">WG964116</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 19:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 19:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 19:09	WG964116
cis-1,2-Dichloroethene	1.40		0.0933	0.500	1	03/29/2017 17:35	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 19:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 19:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 19:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 19:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 19:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 19:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 19:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 19:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 19:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 19:09	WG964116
n-Hexane	0.306	J	0.305	1.00	1	03/28/2017 19:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 19:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 19:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 19:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 19:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 19:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 19:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 19:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 19:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 19:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 19:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 19:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 19:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/29/2017 17:35	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 19:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 19:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 19:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 19:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 19:09	WG964116
Trichloroethene	U		0.153	0.500	1	03/29/2017 17:35	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 19:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 19:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 19:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 19:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 19:09	WG964116
Vinyl chloride	5.22		0.118	0.500	1	03/28/2017 19:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 19:09	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 19:09	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 17:35	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 19:09	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 17:35	WG964116
(S) 4-Bromofluorobenzene	99.5			80.0-120		03/28/2017 19:09	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:35	WG964116

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	183000		2710	20000	1	03/25/2017 14:04	<a href="#">WG964048</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	32200		51.9	1000	1	03/24/2017 14:41	<a href="#">WG963944</a>
Nitrate	54.9	J	22.7	100	1	03/24/2017 14:41	<a href="#">WG963944</a>
Sulfate	33000		77.4	5000	1	03/24/2017 14:41	<a href="#">WG963944</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3940		102	1000	1	03/28/2017 19:09	<a href="#">WG964476</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2940		15.0	100	1	03/29/2017 22:24	<a href="#">WG964085</a>
Manganese	4240		0.250	5.00	1	03/29/2017 22:24	<a href="#">WG964085</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	118		0.287	0.678	1	03/28/2017 02:38	<a href="#">WG964587</a>
Ethane	U		0.296	1.29	1	03/28/2017 02:38	<a href="#">WG964587</a>
Ethene	U		0.422	1.27	1	03/28/2017 02:38	<a href="#">WG964587</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	03/27/2017 20:48	<a href="#">WG964125</a>
Acrylonitrile	U		0.873	2.50	1	03/27/2017 20:48	<a href="#">WG964125</a>
Benzene	U		0.0896	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromobenzene	U		0.133	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromodichloromethane	U		0.0800	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromochloromethane	U		0.145	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromoform	U		0.186	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromomethane	U		0.157	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
n-Butylbenzene	U		0.143	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
sec-Butylbenzene	U		0.134	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
tert-Butylbenzene	U		0.183	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Carbon disulfide	U		0.101	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Carbon tetrachloride	U		0.159	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chlorobenzene	U		0.140	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chlorodibromomethane	U		0.128	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloroethane	U		0.141	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloroform	U		0.0860	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloromethane	U		0.153	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
2-Chlorotoluene	U		0.111	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	03/27/2017 20:48	<a href="#">WG964125</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/23/17 14:35

L897952

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichlorobenzene	U		0.101	0.500	1	03/27/2017 20:48	WG964125
1,3-Dichlorobenzene	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,4-Dichlorobenzene	U		0.121	0.500	1	03/27/2017 20:48	WG964125
Dichlorodifluoromethane	U		0.127	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloroethane	U		0.114	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichloroethane	U		0.108	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloroethene	U		0.188	0.500	1	03/27/2017 20:48	WG964125
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/27/2017 20:48	WG964125
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichloropropane	U		0.190	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloropropene	U		0.128	0.500	1	03/27/2017 20:48	WG964125
1,3-Dichloropropane	U		0.147	0.500	1	03/27/2017 20:48	WG964125
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/27/2017 20:48	WG964125
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/27/2017 20:48	WG964125
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/27/2017 20:48	WG964125
2,2-Dichloropropane	U		0.0929	0.500	1	03/27/2017 20:48	WG964125
Di-isopropyl ether	U		0.0924	0.500	1	03/27/2017 20:48	WG964125
Ethylbenzene	U		0.158	0.500	1	03/27/2017 20:48	WG964125
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/27/2017 20:48	WG964125
2-Hexanone	U		0.757	2.50	1	03/27/2017 20:48	WG964125
n-Hexane	U		0.305	1.00	1	03/27/2017 20:48	WG964125
Iodomethane	U		0.377	2.50	1	03/30/2017 01:43	WG964125
Isopropylbenzene	U		0.126	0.500	1	03/27/2017 20:48	WG964125
p-Isopropyltoluene	U		0.138	0.500	1	03/27/2017 20:48	WG964125
2-Butanone (MEK)	U		1.28	2.50	1	03/27/2017 20:48	WG964125
Methylene Chloride	U		1.07	2.50	1	03/27/2017 20:48	WG964125
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/27/2017 20:48	WG964125
Methyl tert-butyl ether	U		0.102	0.500	1	03/27/2017 20:48	WG964125
Naphthalene	U		0.174	0.500	1	03/27/2017 20:48	WG964125
n-Propylbenzene	U		0.162	0.500	1	03/27/2017 20:48	WG964125
Styrene	U		0.117	0.500	1	03/27/2017 20:48	WG964125
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/27/2017 20:48	WG964125
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/27/2017 20:48	WG964125
Tetrachloroethene	0.338	U	0.199	0.500	1	03/27/2017 20:48	WG964125
Toluene	U		0.412	1.00	1	03/27/2017 20:48	WG964125
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/27/2017 20:48	WG964125
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/27/2017 20:48	WG964125
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/27/2017 20:48	WG964125
1,1,2-Trichloroethane	U		0.186	0.500	1	03/27/2017 20:48	WG964125
Trichloroethene	0.186	U	0.153	0.500	1	03/27/2017 20:48	WG964125
Trichlorofluoromethane	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,2,3-Trichloropropane	U		0.247	2.50	1	03/27/2017 20:48	WG964125
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/27/2017 20:48	WG964125
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/27/2017 20:48	WG964125
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/27/2017 20:48	WG964125
Vinyl acetate	U		0.645	2.50	1	03/27/2017 20:48	WG964125
Vinyl chloride	U		0.118	0.500	1	03/27/2017 20:48	WG964125
Xylenes, Total	U		0.316	1.50	1	03/27/2017 20:48	WG964125
(S) Toluene-d8	102			80.0-120		03/27/2017 20:48	WG964125
(S) Toluene-d8	102			80.0-120		03/30/2017 01:43	WG964125
(S) Dibromofluoromethane	96.9			76.0-123		03/30/2017 01:43	WG964125
(S) Dibromofluoromethane	105			76.0-123		03/27/2017 20:48	WG964125
(S) 4-Bromofluorobenzene	100			80.0-120		03/30/2017 01:43	WG964125
(S) 4-Bromofluorobenzene	103			80.0-120		03/27/2017 20:48	WG964125

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3205870-1 03/25/17 08:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3130	J	2710	20000

<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

L897678-02 Original Sample (OS) • Duplicate (DUP)

(OS) L897678-02 03/25/17 08:17 • (DUP) R3205870-8 03/25/17 08:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	254000	260000	1	2.00		20

L897906-06 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-06 03/25/17 11:15 • (DUP) R3205870-11 03/25/17 11:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	671000	677000	1	1.00		20

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

(LCS) R3205870-9 03/25/17 09:20 • (LCSD) R3205870-10 03/25/17 10:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	94200	105000	94.0	105	85.0-115			10.0	20



Method Blank (MB)

(MB) R3205905-1 03/25/17 12:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

<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

L897999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897999-01 03/25/17 12:59 • (DUP) R3205905-2 03/25/17 13:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ND	ND	1	1.00	J	20

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

(LCS) R3205905-3 03/25/17 13:55 • (LCSD) R3205905-4 03/25/17 15:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	101000	111000	101	111	85.0-115			10.0	20



Method Blank (MB)

(MB) R3205857-1 03/24/17 06:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

<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

L897923-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897923-01 03/24/17 11:06 • (DUP) R3205857-4 03/24/17 11:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	ND	96.0	1	0		15
Sulfate	9650	9380	1	3		15

L897979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897979-01 03/24/17 16:29 • (DUP) R3205857-6 03/24/17 16:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	U	0.000	1	0		15

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

(LCS) R3205857-2 03/24/17 06:55 • (LCSD) R3205857-3 03/24/17 07:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	38800	38800	97	97	80-120			0	15
Nitrate	8000	8050	8040	101	100	80-120			0	15
Sulfate	40000	37600	37800	94	94	80-120			0	15

L897923-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L897923-02 03/24/17 11:36 • (MS) R3205857-5 03/24/17 11:52

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	4140	55000	102	1	80-120	
Nitrate	5000	380	5480	102	1	80-120	
Sulfate	50000	12700	61100	97	1	80-120	



L897979-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897979-04 03/24/17 18:32 • (MS) R3205857-7 03/24/17 18:48 • (MSD) R3205857-8 03/24/17 19:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Nitrate	5000	103	5550	5390	109	106	1	80-120			3	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) R3206903-1 03/29/17 06:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L897906-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-03 03/29/17 12:08 • (DUP) R3206903-4 03/29/17 12:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	U	0.000	1	0		15

L898561-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898561-01 03/29/17 18:54 • (DUP) R3206903-6 03/29/17 19:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	24100	24400	1	1		15

7 Gl

8 Al

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

(LCS) R3206903-2 03/29/17 06:18 • (LCSD) R3206903-3 03/29/17 06:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	40400	40000	101	100	80-120			1	15

9 Sc

L897906-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L897906-06 03/29/17 12:45 • (MS) R3206903-5 03/29/17 13:04

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	31900	79700	96	1	80-120	





Method Blank (MB)

(MB) R3206515-1 03/28/17 10:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897786-16 Original Sample (OS) • Duplicate (DUP)

(OS) L897786-16 03/28/17 11:46 • (DUP) R3206515-3 03/28/17 12:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1090	1120	1	3		20

L897952-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897952-04 03/28/17 19:09 • (DUP) R3206515-7 03/28/17 19:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	3940	3940	1	0		20

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

(LCS) R3206515-2 03/28/17 11:07 • (LCSD) R3206515-4 03/28/17 13:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	73200	73300	98	98	85-115			0	20

L897833-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897833-01 03/28/17 15:56 • (MS) R3206515-5 03/28/17 16:14 • (MSD) R3206515-6 03/28/17 16:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	2170	52800	53600	101	103	1	80-120			2	20



Method Blank (MB)

(MB) R3206854-1 03/29/17 21:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3206854-2 03/29/17 21:07 • (LCSD) R3206854-3 03/29/17 21:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5220	5110	104	102	80-120			2	20
Manganese	50.0	50.6	49.3	101	99	80-120			3	20

5 Sr

6 Qc

L897952-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-01 03/29/17 21:14 • (MS) R3206854-5 03/29/17 21:21 • (MSD) R3206854-6 03/29/17 21:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	94.8	5140	5140	101	101	1	75-125			0	20
Manganese	50.0	3900	3910	3950	34	108	1	75-125	V		1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3206399-1 03/27/17 22:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

<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

L897906-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-04 03/28/17 00:42 • (DUP) R3206399-2 03/28/17 02:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	308	339	1	9.54		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L897999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L897999-01 03/28/17 03:28 • (DUP) R3206399-3 03/28/17 05:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3206399-6 03/28/17 08:58 • (LCSD) R3206399-7 03/28/17 09:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	64.8	66.7	95.6	98.3	70.0-130			2.79	20
Ethane	129	115	121	89.2	94.0	70.0-130			5.19	20
Ethene	127	113	120	89.1	94.6	70.0-130			6.00	20

L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/28/17 00:42 • (MS) R3206399-4 03/28/17 05:41 • (MSD) R3206399-5 03/28/17 08:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Methane	67.8	308	355	449	69.3	207	1	70.0-130	V	J3 V	23.3	20
Ethane	129	U	115	112	88.9	86.9	1	70.0-130			2.37	20



L897906-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897906-04 03/28/17 00:42 • (MS) R3206399-4 03/28/17 05:41 • (MSD) R3206399-5 03/28/17 08:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Ethene	127	U	113	109	88.9	85.6	1	70.0-130			3.78	20

<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) R3206693-3 03/28/17 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	2.11	U	1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3206693-3 03/28/17 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.204	J	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	0.255	J	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	111			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	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



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

(LCS) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	153	165	123	132	10.0-160			7.11	23
Acrylonitrile	125	123	131	98.5	105	60.0-142			6.50	20
Benzene	25.0	20.2	21.6	81.0	86.4	69.0-123			6.50	20
Bromobenzene	25.0	20.3	22.5	81.4	90.2	79.0-120			10.3	20
Bromodichloromethane	25.0	22.6	24.1	90.6	96.2	76.0-120			6.03	20
Bromochloromethane	25.0	20.2	21.3	80.7	85.3	76.0-122			5.62	20
Bromoform	25.0	19.9	21.6	79.5	86.4	67.0-132			8.22	20
Bromomethane	25.0	24.0	24.1	95.8	96.5	18.0-160			0.760	20
n-Butylbenzene	25.0	22.0	23.5	87.9	94.0	72.0-126			6.66	20
sec-Butylbenzene	25.0	20.0	21.7	80.0	86.7	74.0-121			8.07	20
tert-Butylbenzene	25.0	20.0	21.9	80.1	87.7	75.0-122			9.10	20
Carbon disulfide	25.0	17.9	18.8	71.8	75.1	55.0-127			4.53	20
Carbon tetrachloride	25.0	21.0	22.6	84.0	90.4	63.0-122			7.38	20
Chlorobenzene	25.0	19.7	21.5	78.7	86.1	79.0-121	J4		9.01	20
Chlorodibromomethane	25.0	21.1	23.0	84.3	92.2	75.0-125			8.84	20
Chloroethane	25.0	24.6	25.8	98.5	103	47.0-152			4.82	20
2-Chloroethyl vinyl ether	125	137	147	109	118	10.0-160			7.24	22
Chloroform	25.0	21.7	23.0	86.9	92.2	72.0-121			5.95	20
Chloromethane	25.0	24.6	24.4	98.2	97.7	48.0-139			0.560	20
2-Chlorotoluene	25.0	20.2	22.4	80.9	89.5	74.0-122			10.1	20
4-Chlorotoluene	25.0	20.5	22.6	81.8	90.4	79.0-120			9.96	20
1,2-Dibromo-3-Chloropropane	25.0	18.2	19.3	73.0	77.4	64.0-127			5.86	20
1,2-Dibromoethane	25.0	20.1	21.8	80.5	87.2	77.0-123			7.94	20
Dibromomethane	25.0	22.3	23.4	89.3	93.6	78.0-120			4.76	20
1,2-Dichlorobenzene	25.0	20.6	22.1	82.3	88.2	80.0-120			6.90	20
1,3-Dichlorobenzene	25.0	19.3	20.9	77.1	83.5	72.0-123			7.88	20
1,4-Dichlorobenzene	25.0	20.1	22.0	80.3	88.1	77.0-120			9.24	20
Dichlorodifluoromethane	25.0	27.2	24.6	109	98.2	49.0-155			10.2	20
1,1-Dichloroethane	25.0	22.4	23.7	89.4	94.8	70.0-126			5.84	20
1,2-Dichloroethane	25.0	23.9	25.1	95.7	100	67.0-126			4.63	20
1,1-Dichloroethene	25.0	21.9	22.7	87.6	90.8	64.0-129			3.64	20
cis-1,2-Dichloroethene	25.0	21.0	22.4	83.8	89.6	73.0-120			6.65	20
trans-1,2-Dichloroethene	25.0	19.7	20.6	79.0	82.3	71.0-121			4.15	20
1,2-Dichloropropane	25.0	22.9	25.3	91.8	101	75.0-125			9.66	20
1,1-Dichloropropene	25.0	21.0	22.7	84.1	90.6	71.0-129			7.53	20
1,3-Dichloropropane	25.0	21.0	22.4	84.0	89.8	80.0-121			6.70	20
cis-1,3-Dichloropropene	25.0	24.3	25.6	97.1	102	79.0-123			5.13	20
trans-1,3-Dichloropropene	25.0	23.5	25.4	94.1	102	74.0-127			7.77	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.7	82.6	86.7	55.0-134			4.88	20
2,2-Dichloropropane	25.0	22.5	24.4	89.9	97.7	60.0-125			8.39	20

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) R3206693-1 03/28/17 09:33 • (LCSD) R3206693-2 03/28/17 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	24.5	26.8	97.9	107	59.0-133			9.12	20
Ethylbenzene	25.0	19.1	20.8	76.3	83.4	77.0-120	J4		8.88	20
Hexachloro-1,3-butadiene	25.0	19.7	21.5	78.7	86.0	64.0-131			8.79	20
2-Hexanone	125	129	138	103	110	58.0-147			6.93	20
n-Hexane	25.0	18.1	19.2	72.5	76.7	56.0-124			5.68	20
Iodomethane	125	124	130	99.6	104	57.0-140			4.14	20
Isopropylbenzene	25.0	19.9	22.1	79.8	88.2	75.0-120			10.1	20
p-Isopropyltoluene	25.0	20.3	22.0	81.2	88.0	74.0-126			8.10	20
2-Butanone (MEK)	125	147	155	117	124	37.0-158			5.35	20
Methylene Chloride	25.0	19.4	20.7	77.4	82.9	66.0-121			6.86	20
4-Methyl-2-pentanone (MIBK)	125	150	159	120	127	59.0-143			5.43	20
Methyl tert-butyl ether	25.0	23.6	25.4	94.5	101	64.0-123			7.18	20
Naphthalene	25.0	18.2	19.8	72.8	79.3	62.0-128			8.60	20
n-Propylbenzene	25.0	20.3	22.4	81.2	89.4	79.0-120			9.70	20
Styrene	25.0	21.2	23.1	84.7	92.6	78.0-124			8.85	20
1,1,1,2-Tetrachloroethane	25.0	20.8	22.5	83.0	90.0	75.0-122			8.03	20
1,1,2,2-Tetrachloroethane	25.0	20.1	22.0	80.6	87.9	71.0-122			8.68	20
1,1,2-Trichlorotrifluoroethane	25.0	23.5	24.9	94.2	99.7	61.0-136			5.67	20
Tetrachloroethene	25.0	19.0	20.7	76.1	82.8	70.0-127			8.45	20
Toluene	25.0	20.2	21.4	80.8	85.7	77.0-120			5.88	20
1,2,3-Trichlorobenzene	25.0	17.2	19.0	68.7	75.9	61.0-133			9.91	20
1,2,4-Trichlorobenzene	25.0	18.9	19.9	75.7	79.7	69.0-129			5.10	20
1,1,1-Trichloroethane	25.0	22.1	23.7	88.2	94.9	68.0-122			7.33	20
1,1,2-Trichloroethane	25.0	19.8	21.4	79.4	85.8	78.0-120			7.72	20
Trichloroethene	25.0	20.6	21.5	82.6	86.0	78.0-120			4.03	20
Trichlorofluoromethane	25.0	26.2	26.7	105	107	56.0-137			1.58	20
1,2,3-Trichloropropane	25.0	20.6	22.2	82.3	88.9	72.0-124			7.68	20
1,2,4-Trimethylbenzene	25.0	20.3	22.1	81.3	88.4	75.0-120			8.40	20
1,2,3-Trimethylbenzene	25.0	21.1	22.7	84.3	91.0	75.0-120			7.58	20
1,3,5-Trimethylbenzene	25.0	20.1	21.9	80.4	87.5	75.0-120			8.49	20
Vinyl acetate	125	139	149	111	119	46.0-160			6.86	20
Vinyl chloride	25.0	27.2	26.7	109	107	64.0-133			2.02	20
Xylenes, Total	75.0	56.9	62.9	75.9	83.9	77.0-120	J4		10.0	20
(S) Toluene-d8				110	110	80.0-120				
(S) Dibromofluoromethane				104	104	76.0-123				
(S) 4-Bromofluorobenzene				97.6	99.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	3.09	86.2	89.9	66.5	69.5	1	10.0-139			4.23	25
Acrylonitrile	125	U	153	153	122	122	1	46.0-159			0.0900	23
Benzene	25.0	U	24.1	23.1	96.4	92.3	1	34.0-147			4.35	20
Bromobenzene	25.0	U	25.0	23.7	100	94.6	1	51.0-137			5.55	20
Bromodichloromethane	25.0	U	27.2	26.1	109	105	1	52.0-135			3.82	20
Bromochloromethane	25.0	U	25.7	23.2	103	93.0	1	53.0-138			10.0	20
Bromoform	25.0	U	26.0	25.6	104	102	1	50.0-146			1.53	20
Bromomethane	25.0	U	26.4	24.1	106	96.3	1	10.0-160			9.34	23
n-Butylbenzene	25.0	U	25.5	25.5	102	102	1	50.0-144			0.0200	20
sec-Butylbenzene	25.0	U	24.3	23.3	97.1	93.4	1	48.0-143			3.92	20
tert-Butylbenzene	25.0	U	24.3	23.4	97.1	93.7	1	50.0-142			3.54	20
Carbon disulfide	25.0	U	20.2	18.6	80.7	74.5	1	10.0-147			8.03	20
Carbon tetrachloride	25.0	U	25.5	24.5	102	97.9	1	41.0-138			4.30	20
Chlorobenzene	25.0	U	23.9	22.5	95.4	89.9	1	52.0-141			5.93	20
Chlorodibromomethane	25.0	U	25.8	24.8	103	99.2	1	54.0-142			3.91	20
Chloroethane	25.0	U	27.7	26.2	111	105	1	23.0-160			5.47	20
2-Chloroethyl vinyl ether	125	U	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40
Chloroform	25.0	U	26.6	24.6	106	98.3	1	50.0-139			7.76	20
Chloromethane	25.0	U	27.2	25.5	109	102	1	14.0-151			6.48	20
2-Chlorotoluene	25.0	U	24.5	23.4	97.8	93.7	1	48.0-142			4.27	20
4-Chlorotoluene	25.0	U	24.5	23.2	98.0	92.7	1	52.0-139			5.61	20
1,2-Dibromo-3-Chloropropane	25.0	U	23.4	23.9	93.5	95.4	1	49.0-144			1.99	24
1,2-Dibromoethane	25.0	U	24.3	23.6	97.3	94.2	1	54.0-140			3.22	20
Dibromomethane	25.0	U	26.1	25.7	104	103	1	53.0-138			1.67	20
1,2-Dichlorobenzene	25.0	U	24.2	24.0	96.9	95.9	1	56.0-139			1.05	20
1,3-Dichlorobenzene	25.0	U	23.4	22.7	93.7	90.9	1	50.0-141			3.01	20
1,4-Dichlorobenzene	25.0	U	23.9	23.2	95.5	92.9	1	53.0-136			2.73	20
Dichlorodifluoromethane	25.0	U	30.3	28.2	121	113	1	20.0-160			7.15	21
1,1-Dichloroethane	25.0	U	27.3	25.4	109	101	1	47.0-143			7.40	20
1,2-Dichloroethane	25.0	U	28.7	28.0	115	112	1	47.0-141			2.66	20
1,1-Dichloroethene	25.0	U	26.2	25.1	105	100	1	31.0-148			4.37	20
cis-1,2-Dichloroethene	25.0	2.63	28.1	25.6	102	91.8	1	43.0-142			9.27	20
trans-1,2-Dichloroethene	25.0	U	23.6	21.6	94.3	86.4	1	36.0-141			8.76	20
1,2-Dichloropropane	25.0	U	27.7	26.8	111	107	1	51.0-141			3.38	20
1,1-Dichloropropene	25.0	U	24.4	22.9	97.6	91.4	1	42.0-146			6.48	20
1,3-Dichloropropane	25.0	U	25.3	24.6	101	98.3	1	58.0-139			2.86	20
cis-1,3-Dichloropropene	25.0	U	25.9	25.3	104	101	1	53.0-139			2.63	20
trans-1,3-Dichloropropene	25.0	U	27.4	26.6	110	106	1	51.0-143			3.10	20
trans-1,4-Dichloro-2-butene	25.0	U	22.4	21.0	89.5	84.1	1	40.0-150			6.21	21
2,2-Dichloropropane	25.0	U	27.8	25.5	111	102	1	43.0-139			8.81	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L897952-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897952-03 03/28/17 19:09 • (MS) R3206693-4 03/28/17 19:29 • (MSD) R3206693-5 03/28/17 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	U	31.4	29.8	126	119	1	44.0-144			5.01	20
Ethylbenzene	25.0	U	23.2	22.1	92.8	88.2	1	42.0-147			5.08	20
Hexachloro-1,3-butadiene	25.0	U	23.4	24.0	93.5	96.1	1	44.0-146			2.80	21
2-Hexanone	125	U	119	124	94.8	98.9	1	36.0-145			4.16	23
n-Hexane	25.0	0.306	20.9	20.2	82.3	79.5	1	13.0-145			3.41	20
Iodomethane	125	U	148	135	118	108	1	30.0-151			9.18	20
Isopropylbenzene	25.0	U	24.3	23.3	97.1	93.3	1	48.0-141			3.96	20
p-Isopropyltoluene	25.0	U	24.1	23.4	96.4	93.5	1	49.0-146			3.02	20
2-Butanone (MEK)	125	U	115	122	92.2	97.3	1	12.0-149			5.41	24
Methylene Chloride	25.0	U	24.2	22.6	96.7	90.6	1	42.0-135			6.50	20
4-Methyl-2-pentanone (MIBK)	125	U	161	168	129	134	1	44.0-160			3.97	22
Methyl tert-butyl ether	25.0	U	30.1	28.4	120	114	1	42.0-142			5.67	20
Naphthalene	25.0	U	20.9	23.3	83.5	93.4	1	42.0-146			11.2	24
n-Propylbenzene	25.0	U	24.6	23.4	98.5	93.5	1	47.0-144			5.12	20
Styrene	25.0	U	25.2	23.3	101	93.2	1	47.0-147			7.65	20
1,1,1,2-Tetrachloroethane	25.0	U	25.6	24.5	102	98.0	1	52.0-140			4.18	20
1,1,2,2-Tetrachloroethane	25.0	U	25.5	25.9	102	104	1	46.0-149			1.39	20
1,1,2-Trichlorotrifluoroethane	25.0	U	28.6	26.8	114	107	1	40.0-151			6.40	21
Tetrachloroethene	25.0	0.566	23.5	21.8	91.9	84.9	1	38.0-147			7.73	20
Toluene	25.0	U	24.2	22.7	96.6	90.8	1	42.0-141			6.21	20
1,2,3-Trichlorobenzene	25.0	U	19.3	21.2	77.2	84.7	1	45.0-145			9.27	22
1,2,4-Trichlorobenzene	25.0	U	20.9	21.7	83.8	86.7	1	49.0-147			3.51	21
1,1,1-Trichloroethane	25.0	U	27.0	25.4	108	102	1	46.0-140			5.94	20
1,1,2-Trichloroethane	25.0	U	24.2	23.8	97.0	95.3	1	54.0-139			1.80	20
Trichloroethene	25.0	0.355	24.4	23.3	96.4	91.9	1	32.0-156			4.69	20
Trichlorofluoromethane	25.0	U	30.6	28.3	122	113	1	32.0-152			7.70	20
1,2,3-Trichloropropane	25.0	U	25.8	25.6	103	102	1	54.0-143			0.930	21
1,2,4-Trimethylbenzene	25.0	U	23.9	23.0	95.5	92.0	1	41.0-146			3.76	20
1,2,3-Trimethylbenzene	25.0	U	24.5	24.4	97.9	97.4	1	48.0-138			0.420	20
1,3,5-Trimethylbenzene	25.0	U	24.2	23.2	96.8	92.6	1	44.0-143			4.44	20
Vinyl acetate	125	U	170	170	136	136	1	30.0-160			0.0400	20
Vinyl chloride	25.0	5.22	35.1	32.8	119	110	1	24.0-153			6.56	20
Xylenes, Total	75.0	U	69.6	65.6	92.8	87.5	1	41.0-148			5.92	20
(S) Toluene-d8					111	108		80.0-120				
(S) Dibromofluoromethane					105	102		76.0-123				
(S) 4-Bromofluorobenzene					101	97.0		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3206174-3 03/27/17 11:25

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3206174-3 03/27/17 11:25

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	105			76.0-123
(S) 4-Bromofluorobenzene	103			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) R3206174-1 03/27/17 09:53 • (LCSD) R3206174-2 03/27/17 10:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	150	163	120	130	10.0-160			7.72	23
Acrylonitrile	125	129	127	103	102	60.0-142			1.36	20
Benzene	25.0	25.4	26.3	101	105	69.0-123			3.63	20
Bromobenzene	25.0	26.1	27.6	104	110	79.0-120			5.35	20
Bromodichloromethane	25.0	25.8	27.0	103	108	76.0-120			4.45	20
Bromochloromethane	25.0	24.2	25.0	96.8	100	76.0-122			3.43	20
Bromoform	25.0	27.1	28.9	109	116	67.0-132			6.24	20
Bromomethane	25.0	25.2	27.3	101	109	18.0-160			7.88	20
n-Butylbenzene	25.0	23.4	24.7	93.7	98.6	72.0-126			5.15	20
sec-Butylbenzene	25.0	23.2	24.4	92.7	97.6	74.0-121			5.15	20
tert-Butylbenzene	25.0	24.2	25.6	96.9	102	75.0-122			5.51	20
Carbon disulfide	25.0	22.2	23.0	89.0	91.9	55.0-127			3.21	20
Carbon tetrachloride	25.0	23.8	26.3	95.3	105	63.0-122			9.96	20
Chlorobenzene	25.0	27.4	28.6	110	114	79.0-121			4.28	20
Chlorodibromomethane	25.0	27.2	28.6	109	114	75.0-125			5.20	20
Chloroethane	25.0	23.1	25.3	92.6	101	47.0-152			8.85	20
2-Chloroethyl vinyl ether	125	112	116	89.3	93.0	10.0-160			4.02	22
Chloroform	25.0	25.1	26.8	100	107	72.0-121			6.74	20
Chloromethane	25.0	23.4	24.5	93.6	98.1	48.0-139			4.67	20
2-Chlorotoluene	25.0	26.4	28.0	105	112	74.0-122			5.98	20
4-Chlorotoluene	25.0	26.5	28.0	106	112	79.0-120			5.64	20
1,2-Dibromo-3-Chloropropane	25.0	24.5	26.0	98.1	104	64.0-127			5.71	20
1,2-Dibromoethane	25.0	27.0	28.3	108	113	77.0-123			4.74	20
Dibromomethane	25.0	25.5	26.7	102	107	78.0-120			4.45	20
1,2-Dichlorobenzene	25.0	27.0	28.7	108	115	80.0-120			6.11	20
1,3-Dichlorobenzene	25.0	26.6	27.7	106	111	72.0-123			4.16	20
1,4-Dichlorobenzene	25.0	26.6	27.9	107	112	77.0-120			4.70	20
Dichlorodifluoromethane	25.0	34.4	36.6	138	147	49.0-155			6.35	20
1,1-Dichloroethane	25.0	24.5	25.5	97.8	102	70.0-126			4.00	20
1,2-Dichloroethane	25.0	24.8	26.0	99.3	104	67.0-126			4.83	20
1,1-Dichloroethene	25.0	24.0	25.2	96.2	101	64.0-129			4.52	20
cis-1,2-Dichloroethene	25.0	25.6	26.4	102	106	73.0-120			3.09	20
trans-1,2-Dichloroethene	25.0	25.3	26.6	101	106	71.0-121			5.08	20
1,2-Dichloropropane	25.0	24.6	25.8	98.4	103	75.0-125			4.74	20
1,1-Dichloropropene	25.0	26.2	26.7	105	107	71.0-129			1.54	20
1,3-Dichloropropane	25.0	27.9	29.3	112	117	80.0-121			4.76	20
cis-1,3-Dichloropropene	25.0	26.6	28.0	106	112	79.0-123			5.20	20
trans-1,3-Dichloropropene	25.0	25.8	26.8	103	107	74.0-127			3.85	20
trans-1,4-Dichloro-2-butene	25.0	22.8	23.7	91.2	94.9	55.0-134			3.98	20
2,2-Dichloropropane	25.0	22.9	24.9	91.7	99.7	60.0-125			8.41	20

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) R3206174-1 03/27/17 09:53 • (LCSD) R3206174-2 03/27/17 10:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	22.5	23.0	90.0	92.2	59.0-133			2.41	20
Ethylbenzene	25.0	26.5	27.7	106	111	77.0-120			4.13	20
Hexachloro-1,3-butadiene	25.0	25.2	26.9	101	107	64.0-131			6.30	20
2-Hexanone	125	152	158	122	126	58.0-147			3.79	20
n-Hexane	25.0	25.4	25.4	101	102	56.0-124			0.190	20
Iodomethane	125	76.0	87.2	60.8	69.8	57.0-140			13.7	20
Isopropylbenzene	25.0	25.2	26.3	101	105	75.0-120			4.56	20
p-Isopropyltoluene	25.0	24.6	25.6	98.5	102	74.0-126			3.91	20
2-Butanone (MEK)	125	152	154	122	123	37.0-158			1.09	20
Methylene Chloride	25.0	23.6	24.3	94.4	97.3	66.0-121			2.98	20
4-Methyl-2-pentanone (MIBK)	125	138	143	111	115	59.0-143			3.41	20
Methyl tert-butyl ether	25.0	24.1	25.0	96.6	100	64.0-123			3.65	20
Naphthalene	25.0	24.9	26.5	99.6	106	62.0-128			6.30	20
n-Propylbenzene	25.0	25.8	27.0	103	108	79.0-120			4.48	20
Styrene	25.0	27.4	28.9	109	116	78.0-124			5.42	20
1,1,1,2-Tetrachloroethane	25.0	26.6	28.2	106	113	75.0-122			6.05	20
1,1,2,2-Tetrachloroethane	25.0	26.2	27.2	105	109	71.0-122			3.89	20
1,1,2-Trichlorotrifluoroethane	25.0	26.2	28.0	105	112	61.0-136			6.75	20
Tetrachloroethene	25.0	27.0	28.6	108	114	70.0-127			5.79	20
Toluene	25.0	25.1	26.4	101	106	77.0-120			4.95	20
1,2,3-Trichlorobenzene	25.0	25.3	26.5	101	106	61.0-133			4.74	20
1,2,4-Trichlorobenzene	25.0	25.7	27.4	103	110	69.0-129			6.31	20
1,1,1-Trichloroethane	25.0	24.9	26.7	99.6	107	68.0-122			6.84	20
1,1,2-Trichloroethane	25.0	27.7	28.8	111	115	78.0-120			4.07	20
Trichloroethene	25.0	25.7	26.8	103	107	78.0-120			4.37	20
Trichlorofluoromethane	25.0	24.4	25.8	97.4	103	56.0-137			5.81	20
1,2,3-Trichloropropane	25.0	26.7	27.5	107	110	72.0-124			3.02	20
1,2,4-Trimethylbenzene	25.0	25.2	26.6	101	106	75.0-120			5.24	20
1,2,3-Trimethylbenzene	25.0	24.7	26.1	99.0	104	75.0-120			5.17	20
1,3,5-Trimethylbenzene	25.0	24.3	25.5	97.2	102	75.0-120			4.99	20
Vinyl acetate	125	163	172	130	138	46.0-160			5.42	20
Vinyl chloride	25.0	28.8	30.1	115	121	64.0-133			4.71	20
Xylenes, Total	75.0	78.8	82.9	105	111	77.0-120			5.07	20
(S) Toluene-d8				102	102	80.0-120				
(S) Dibromofluoromethane				104	106	76.0-123				
(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



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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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		

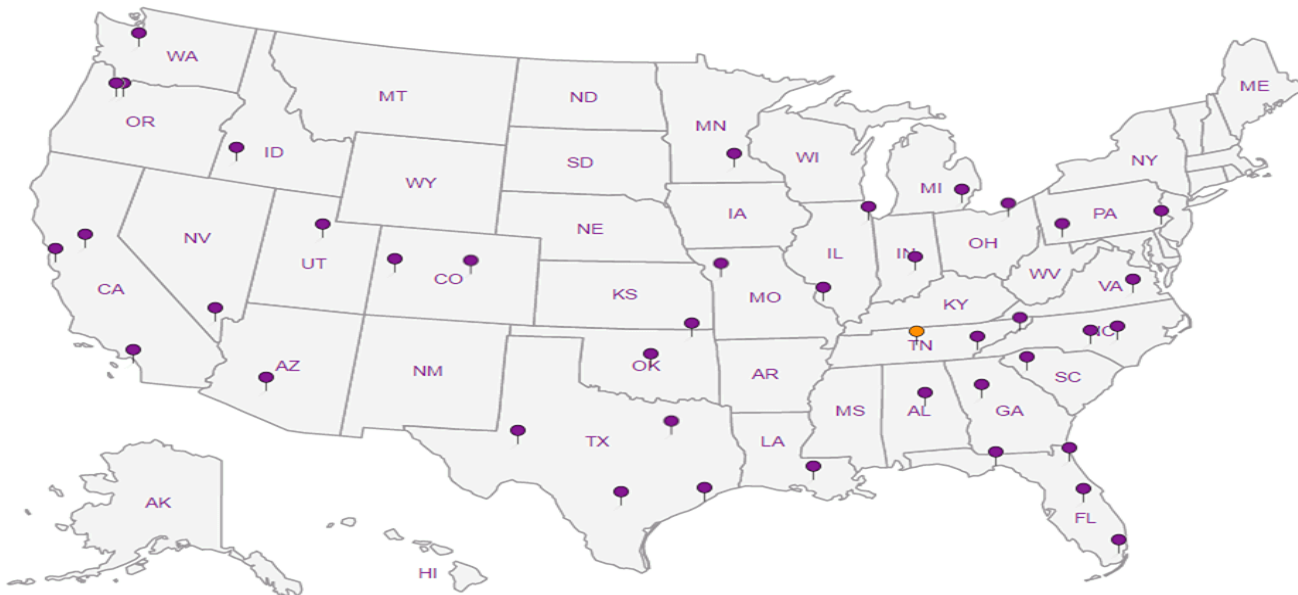
## Third Party & Federal Accreditations

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.**



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

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Chain of Custody Page    of   



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**1157**

Acctnum: **PESENVSWA**

Template: **T121414**

Prelogin: **P592684**

TSR: **110 - Brian Ford**

PB: **3-13-17**

Shipped Via: **FedEx Ground**

Report to:  
**Bill Haldeman**

Email To: **bhaldeman@pesenv.com**

Project  
Description: **American Linen Supply**

City/State  
Collected:

Phone: **206-529-3980**  
Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
**C. De Boer**

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  
**Chris DeBoer**

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

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

Quote #

Date Results Needed

No.  
of  
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO3, Cl, SO4, Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Min 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
MW110-032317	Grab	GW	40	3/23/17	1055	9	X	X	X	X	X	X
MW105-032317	Grab	GW	108	3/23/17	1245	9	X	X	X	X	X	X
MW111-032317	Grab	GW	75	3/23/17	1255	9	X	X	X	X	X	X
R-MW5-032317	Grab	GW	143	3/23/17	1435	9	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

Remarks Sample # (lab only)

-01

02

03

04

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

Remarks: \*Nitrate has a 48 hour hold time

Samples returned via:  
 UPS  FedEx  Courier

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

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

Sample Receipt Checklist  
COO Seal Present/Intact:  Y  N  
COO Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headpace:  Y  N  
Preservation Correct/Checked:  Y  N

Tracking # **7176 9011 7111**

Relinquished by: (Signature)  
**Chris DeBoer**

Date: **3/23/17** Time: **1520**

Received by: (Signature)

Trip Blank Received: Yes/No  
HCL/MeOH  
TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: **17 °C** Bottles Received: **36**

Relinquished by: (Signature)

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

Received for lab by: (Signature)  
**[Signature]**

Date: **3-24-17** Time: **9:00**

If preservation required by Login: Date/Time

Hold: \_\_\_\_\_ Condition: **NCF OK**

## MEMORANDUM

**TO:** Project File **DATE:** April 18, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 23, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L897952

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Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 23, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L897952. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L897952 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in a cooler and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## **Method Blank Results**

### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following discussions:

- Low level acetone, naphthalene, and 1,2,3-trichlorobenzene detections were reported in the method blank (WG964116). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compounds naphthalene and 1,2,3-trichlorobenzene are not detected in associated samples therefore no action is required. Low level acetone detections were reported in samples MW110-032317, MW103-032317, and MW111-032317. **Acetone results in associated samples are qualified as non-detect (U) due to blank contamination.**

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

### *USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

## **Trip Blank Results**

### *USEPA Method 8260C:*

A trip blank was not collected.

## **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

## **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.



## **Laboratory Duplicate Analyses**

### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

### *Method RSK-175:*

Laboratory duplicate samples were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

### *General Chemistry:*

*SM 2320B:* A laboratory duplicate sample analysis was performed on a client sample from another SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample analysis was performed on sample R-MW5-032317. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## **Surrogate Recoveries**

### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## **Laboratory Control Samples**

### *USEPA Method 8260C (VOCs):*

LCS/LCSDs were analyzed with each analytical batch by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG964116) compound (chlorobenzene, ethylbenzene, and total xylenes) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within criteria and MS/MSD recoveries are also within criteria for these compounds.

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

An MS/MSD was not performed with batch WG964125. Refer to LCS/LCSD and RPD results for details. MS/MSD analysis was performed on sample MW111-032317 from batch WG964116. The MS/MSD percent recoveries for target analytes were within the laboratory control criteria for water samples with the following exception:

- MS/MSD (WG964116) recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. Laboratory notes indicate that the sample matrix interfered with the ability to make an accurate determination. **Compound 2CEVE result for sample MW111-032317 is rejected (R) and the data are not usable due to poor recovery.** For the remaining samples, the LCS/LCSD results are acceptable for this compound thereby demonstrating laboratory capability and accuracy. Refer to LCS/LCSD data for additional information on 2CEVE.

*Method RSK-175:*

MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD %Rs and RPDs for dissolved gases are within the laboratory control limit criteria for water samples with the following exception:

- MS/MSD recoveries for methane are outside of acceptance criteria and as a result the RPD exceeded laboratory acceptance criteria. No action is taken as this is a non-client sample and the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on sample MW110-032317. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Spike (MS) recovery for manganese is outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batch. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

**Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

**Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

**Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use with one exception:

- **Sample MW111-032317 result for VOC compound 2-chloroethyl vinyl ether (2CEVE) is rejected (R) and the result is not usable due to poor spike recoveries.**



Collected date/time: 03/23/17 10:55

L897952

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	425000		2710	20000	1	03/25/2017 10:18	WG963928

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	36200		51.9	1000	1	03/24/2017 13:08	WG963944
Nitrate	652		22.7	100	1	03/24/2017 13:08	WG963944
Sulfate	108000		387	25000	5	03/29/2017 17:40	WG964927

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	7980		102	1000	1	03/28/2017 18:19	WG964476

6 Qc

7 GI

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	94.8	J	15.0	100	1	03/29/2017 21:14	WG964085
Manganese	3900	V	0.250	5.00	1	03/29/2017 21:14	WG964085

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	125		0.287	0.678	1	03/28/2017 01:15	WG964587
Ethane	1.21	J	0.296	1.29	1	03/28/2017 01:15	WG964587
Ethene	U		0.422	1.27	1	03/28/2017 01:15	WG964587

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	2.62	W, B, J	1.05	25.0	1	03/28/2017 18:29	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:29	WG964116
Benzene	0.330	J	0.0896	0.500	1	03/28/2017 18:29	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:29	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:29	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:29	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 18:29	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 18:29	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:29	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:29	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:29	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:29	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:29	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 18:29	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:29	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 18:29	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:29	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 18:29	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 18:29	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:29	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:29	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:29	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:29	WG964116

*Je*  
4/18/17





Collected date/time: 03/23/17 10:55

L897952

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:29	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:29	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloroethene	5.23		0.188	0.500	1	03/28/2017 18:29	WG964116
cis-1,2-Dichloroethene	644		4.66	25.0	50	03/29/2017 18:15	WG964116
trans-1,2-Dichloroethene	4.72		0.152	0.500	1	03/28/2017 18:29	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:29	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:29	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:29	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:29	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:29	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:29	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:29	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:29	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 18:29	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:29	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:29	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 18:29	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 18:29	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:29	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:29	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:29	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:29	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:29	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:29	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 18:29	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:29	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 18:29	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:29	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:29	WG964116
Tetrachloroethene	1070		9.95	25.0	50	03/29/2017 18:15	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 18:29	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:29	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:29	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:29	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:29	WG964116
Trichloroethene	389		7.65	25.0	50	03/29/2017 18:15	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:29	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:29	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:29	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:29	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:29	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:29	WG964116
Vinyl chloride	1.45		0.118	0.500	1	03/28/2017 18:29	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:29	WG964116
(S) Toluene-d8	98.4			80.0-120		03/28/2017 18:29	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 18:15	WG964116
(S) Dibromofluoromethane	99.5			76.0-123		03/29/2017 18:15	WG964116
(S) Dibromofluoromethane	105			76.0-123		03/28/2017 18:29	WG964116
(S) 4-Bromofluorobenzene	97.8			80.0-120		03/28/2017 18:29	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 18:15	WG964116

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

Jc  
4/18/17



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	337000		2710	20000	1	03/25/2017 10:24	WG963928

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	48400		51.9	1000	1	03/24/2017 13:39	WG963944
Nitrate	U		22.7	100	1	03/24/2017 13:39	WG963944
Sulfate	36300		77.4	5000	1	03/24/2017 13:39	WG963944

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1970		102	1000	1	03/28/2017 18:38	WG964476

5 Qc

7 GI

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	1680		15.0	100	1	03/29/2017 22:07	WG964085
Manganese	1090		0.250	5.00	1	03/29/2017 22:07	WG964085

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	433		0.287	0.678	1	03/28/2017 01:48	WG964587
Ethane	82.5		0.296	1.29	1	03/28/2017 01:48	WG964587
Ethene	34.1		0.422	1.27	1	03/28/2017 01:48	WG964587

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	2.87	W B J	1.05	25.0	1	03/28/2017 18:49	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 18:49	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 18:49	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:49	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:49	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:49	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 18:49	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 18:49	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:49	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:49	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:49	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:49	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:49	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 18:49	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:49	WG964116
Chloroethane	0.301	J J	0.141	0.500	1	03/28/2017 18:49	WG964116
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:49	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 18:49	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 18:49	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:49	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:49	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:49	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:49	WG964116

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4/18/17





Collected date/time: 03/23/17 12:45

L897952

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:49	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:49	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloroethane	0.195	J J	0.114	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloroethene	3.69		0.188	0.500	1	03/28/2017 18:49	WG964116
cis-1,2-Dichloroethene	240		0.933	5.00	10	03/29/2017 18:35	WG964116
trans-1,2-Dichloroethene	0.405	J J	0.152	0.500	1	03/28/2017 18:49	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:49	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:49	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:49	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:49	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:49	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:49	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:49	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:49	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 18:49	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:49	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 18:49	WG964116
n-Hexane	U		0.305	1.00	1	03/28/2017 18:49	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 18:49	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:49	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:49	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 18:49	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:49	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 18:49	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:49	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 18:49	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:49	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 18:49	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:49	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:49	WG964116
Tetrachloroethene	U		1.99	5.00	10	03/29/2017 18:35	WG964116
Toluene	0.464	J J	0.412	1.00	1	03/28/2017 18:49	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:49	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:49	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:49	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:49	WG964116
Trichloroethene	23.1		0.153	0.500	1	03/28/2017 18:49	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:49	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:49	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:49	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:49	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:49	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:49	WG964116
Vinyl chloride	157		0.118	0.500	1	03/28/2017 18:49	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 18:49	WG964116
(S) Toluene-d8	108			80.0-120		03/29/2017 18:35	WG964116
(S) Toluene-d8	111			80.0-120		03/28/2017 18:49	WG964116
(S) Dibromofluoromethane	102			76.0-123		03/29/2017 18:35	WG964116
(S) Dibromofluoromethane	106			76.0-123		03/28/2017 18:49	WG964116
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:49	WG964116
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 18:35	WG964116

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

*JC*  
4/18/17





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	179000		270	20000	1	03/25/2017 13:47	WG964048

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	22900		51.9	1000	1	03/24/2017 14:10	WG963944
Nitrate	68.0	J	22.7	100	1	03/24/2017 14:10	WG963944
Sulfate	8250		77.4	5000	1	03/24/2017 14:10	WG963944

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	918	J	102	1000	1	03/28/2017 18:56	WG964476

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	391		15.0	100	1	03/29/2017 22:11	WG964085
Manganese	151		0.250	5.00	1	03/29/2017 22:11	WG964085

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	136		0.287	0.678	1	03/28/2017 02:22	WG964587
Ethane	5.74		0.296	1.29	1	03/28/2017 02:22	WG964587
Ethene	4.17		0.422	1.27	1	03/28/2017 02:22	WG964587

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.09	W B J	1.05	25.0	1	03/28/2017 19:09	WG964116
Acrylonitrile	U		0.873	2.50	1	03/28/2017 19:09	WG964116
Benzene	U		0.0896	0.500	1	03/28/2017 19:09	WG964116
Bromobenzene	U		0.133	0.500	1	03/28/2017 19:09	WG964116
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 19:09	WG964116
Bromochloromethane	U		0.145	0.500	1	03/28/2017 19:09	WG964116
Bromoform	U		0.186	0.500	1	03/28/2017 19:09	WG964116
Bromomethane	U		0.157	0.500	1	03/28/2017 19:09	WG964116
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 19:09	WG964116
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 19:09	WG964116
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 19:09	WG964116
Carbon disulfide	U		0.101	0.500	1	03/28/2017 19:09	WG964116
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 19:09	WG964116
Chlorobenzene	U	J4	0.140	0.500	1	03/28/2017 19:09	WG964116
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 19:09	WG964116
Chloroethane	U		0.141	0.500	1	03/28/2017 19:09	WG964116
2-Chloroethyl vinyl ether	U	R J6	0.877	2.50	1	03/28/2017 19:09	WG964116
Chloroform	U		0.0860	0.500	1	03/28/2017 19:09	WG964116
Chloromethane	U		0.153	0.500	1	03/28/2017 19:09	WG964116
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 19:09	WG964116
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 19:09	WG964116
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 19:09	WG964116
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 19:09	WG964116

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MW111-032317

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 03/23/17 12:55

L897952

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Dibromomethane	U		0.117	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 19:09	WG964116
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 19:09	WG964116
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 19:09	WG964116
cis-1,2-Dichloroethene	1.40		0.0933	0.500	1	03/29/2017 17:35	WG964116
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 19:09	WG964116
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 19:09	WG964116
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 19:09	WG964116
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 19:09	WG964116
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 19:09	WG964116
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 19:09	WG964116
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 19:09	WG964116
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 19:09	WG964116
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 19:09	WG964116
Ethylbenzene	U	J4	0.158	0.500	1	03/28/2017 19:09	WG964116
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 19:09	WG964116
2-Hexanone	U		0.757	2.50	1	03/28/2017 19:09	WG964116
n-Hexane	0.306	J	0.305	1.00	1	03/28/2017 19:09	WG964116
Iodomethane	U		0.377	2.50	1	03/28/2017 19:09	WG964116
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 19:09	WG964116
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 19:09	WG964116
2-Butanone (MEK)	U		1.28	2.50	1	03/28/2017 19:09	WG964116
Methylene Chloride	U		1.07	2.50	1	03/28/2017 19:09	WG964116
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/28/2017 19:09	WG964116
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 19:09	WG964116
Naphthalene	U		0.174	0.500	1	03/28/2017 19:09	WG964116
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 19:09	WG964116
Styrene	U		0.117	0.500	1	03/28/2017 19:09	WG964116
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 19:09	WG964116
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 19:09	WG964116
Tetrachloroethene	U		0.199	0.500	1	03/29/2017 17:35	WG964116
Toluene	U		0.412	1.00	1	03/28/2017 19:09	WG964116
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 19:09	WG964116
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 19:09	WG964116
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 19:09	WG964116
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 19:09	WG964116
Trichloroethene	U		0.153	0.500	1	03/29/2017 17:35	WG964116
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 19:09	WG964116
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 19:09	WG964116
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 19:09	WG964116
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 19:09	WG964116
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 19:09	WG964116
Vinyl acetate	U		0.645	2.50	1	03/28/2017 19:09	WG964116
Vinyl chloride	5.22		0.118	0.500	1	03/28/2017 19:09	WG964116
Xylenes, Total	U	J4	0.316	1.50	1	03/28/2017 19:09	WG964116
(S) Toluene-d8	109			80.0-120		03/28/2017 19:09	WG964116
(S) Toluene-d8	110			80.0-120		03/29/2017 17:35	WG964116
(S) Dibromofluoromethane	103			76.0-123		03/28/2017 19:09	WG964116
(S) Dibromofluoromethane	104			76.0-123		03/29/2017 17:35	WG964116
(S) 4-Bromofluorobenzene	99.5			80.0-120		03/28/2017 19:09	WG964116
(S) 4-Bromofluorobenzene	101			80.0-120		03/29/2017 17:35	WG964116

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

*Handwritten:* J2  
4/18/17





## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	183000		2710	20000	1	03/25/2017 14:04	<a href="#">WG964048</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	32200		51.9	1000	1	03/24/2017 14:41	<a href="#">WG963944</a>
Nitrate	54.9	J	22.7	100	1	03/24/2017 14:41	<a href="#">WG963944</a>
Sulfate	33000		77.4	5000	1	03/24/2017 14:41	<a href="#">WG963944</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3940		102	1000	1	03/28/2017 19:09	<a href="#">WG964476</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	2940		15.0	100	1	03/29/2017 22:24	<a href="#">WG964085</a>
Manganese	4240		0.250	5.00	1	03/29/2017 22:24	<a href="#">WG964085</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	118		0.287	0.678	1	03/28/2017 02:38	<a href="#">WG964587</a>
Ethane	U		0.296	1.29	1	03/28/2017 02:38	<a href="#">WG964587</a>
Ethene	U		0.422	1.27	1	03/28/2017 02:38	<a href="#">WG964587</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	03/27/2017 20:48	<a href="#">WG964125</a>
Acrylonitrile	U		0.873	2.50	1	03/27/2017 20:48	<a href="#">WG964125</a>
Benzene	U		0.0896	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromobenzene	U		0.133	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromodichloromethane	U		0.0800	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromochloromethane	U		0.145	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromoform	U		0.186	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Bromomethane	U		0.157	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
n-Butylbenzene	U		0.143	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
sec-Butylbenzene	U		0.134	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
tert-Butylbenzene	U		0.183	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Carbon disulfide	U		0.101	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Carbon tetrachloride	U		0.159	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chlorobenzene	U		0.140	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chlorodibromomethane	U		0.128	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloroethane	U		0.141	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloroform	U		0.0860	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
Chloromethane	U		0.153	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
2-Chlorotoluene	U		0.111	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/27/2017 20:48	<a href="#">WG964125</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/27/2017 20:48	<a href="#">WG964125</a>

*Jc*  
04/18/17





Collected date/time: 03/23/17 14:35

L897952

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichlorobenzene	U		0.101	0.500	1	03/27/2017 20:48	WG964125
1,3-Dichlorobenzene	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,4-Dichlorobenzene	U		0.121	0.500	1	03/27/2017 20:48	WG964125
Dichlorodifluoromethane	U		0.127	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloroethane	U		0.114	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichloroethane	U		0.108	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloroethene	U		0.188	0.500	1	03/27/2017 20:48	WG964125
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/27/2017 20:48	WG964125
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/27/2017 20:48	WG964125
1,2-Dichloropropane	U		0.190	0.500	1	03/27/2017 20:48	WG964125
1,1-Dichloropropene	U		0.128	0.500	1	03/27/2017 20:48	WG964125
1,3-Dichloropropane	U		0.147	0.500	1	03/27/2017 20:48	WG964125
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/27/2017 20:48	WG964125
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/27/2017 20:48	WG964125
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/27/2017 20:48	WG964125
2,2-Dichloropropane	U		0.0929	0.500	1	03/27/2017 20:48	WG964125
Di-isopropyl ether	U		0.0924	0.500	1	03/27/2017 20:48	WG964125
Ethylbenzene	U		0.158	0.500	1	03/27/2017 20:48	WG964125
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/27/2017 20:48	WG964125
2-Hexanone	U		0.757	2.50	1	03/27/2017 20:48	WG964125
n-Hexane	U		0.305	1.00	1	03/27/2017 20:48	WG964125
Iodomethane	U		0.377	2.50	1	03/30/2017 01:43	WG964125
Isopropylbenzene	U		0.126	0.500	1	03/27/2017 20:48	WG964125
p-Isopropyltoluene	U		0.138	0.500	1	03/27/2017 20:48	WG964125
2-Butanone (MEK)	U		1.28	2.50	1	03/27/2017 20:48	WG964125
Methylene Chloride	U		1.07	2.50	1	03/27/2017 20:48	WG964125
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	03/27/2017 20:48	WG964125
Methyl tert-butyl ether	U		0.102	0.500	1	03/27/2017 20:48	WG964125
Naphthalene	U		0.174	0.500	1	03/27/2017 20:48	WG964125
n-Propylbenzene	U		0.162	0.500	1	03/27/2017 20:48	WG964125
Styrene	U		0.117	0.500	1	03/27/2017 20:48	WG964125
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/27/2017 20:48	WG964125
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/27/2017 20:48	WG964125
Tetrachloroethene	0.338	J	0.199	0.500	1	03/27/2017 20:48	WG964125
Toluene	U		0.412	1.00	1	03/27/2017 20:48	WG964125
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/27/2017 20:48	WG964125
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/27/2017 20:48	WG964125
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/27/2017 20:48	WG964125
1,1,2-Trichloroethane	U		0.186	0.500	1	03/27/2017 20:48	WG964125
Trichloroethene	0.186	J	0.153	0.500	1	03/27/2017 20:48	WG964125
Trichlorofluoromethane	U		0.130	0.500	1	03/27/2017 20:48	WG964125
1,2,3-Trichloropropane	U		0.247	2.50	1	03/27/2017 20:48	WG964125
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/27/2017 20:48	WG964125
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/27/2017 20:48	WG964125
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/27/2017 20:48	WG964125
Vinyl acetate	U		0.645	2.50	1	03/27/2017 20:48	WG964125
Vinyl chloride	U		0.118	0.500	1	03/27/2017 20:48	WG964125
Xylenes, Total	U		0.316	1.50	1	03/27/2017 20:48	WG964125
(S) Toluene-d8	102			80.0-120		03/27/2017 20:48	WG964125
(S) Toluene-d8	102			80.0-120		03/30/2017 01:43	WG964125
(S) Dibromofluoromethane	96.9			76.0-123		03/30/2017 01:43	WG964125
(S) Dibromofluoromethane	105			76.0-123		03/27/2017 20:48	WG964125
(S) 4-Bromofluorobenzene	100			80.0-120		03/30/2017 01:43	WG964125
(S) 4-Bromofluorobenzene	103			80.0-120		03/27/2017 20:48	WG964125

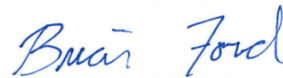
- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC  
9/18/17

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L898272  
Samples Received: 03/25/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



## GEI-1-032417 L898272-01 GW

Collected by  
Chris D  
Collected date/time  
03/24/17 10:00  
Received date/time  
03/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964237	1	03/28/17 10:12	03/28/17 10:12	AMC
Wet Chemistry by Method 9056A	WG964255	1	03/25/17 16:12	03/25/17 16:12	KCF
Wet Chemistry by Method 9056A	WG964927	1	03/29/17 18:17	03/29/17 18:17	KCF
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 19:36	03/28/17 19:36	SJM
Metals (ICPMS) by Method 6020	WG966184	1	04/01/17 07:17	04/01/17 14:37	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966467	1	04/02/17 08:18	04/02/17 08:18	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966662	40	04/03/17 08:27	04/03/17 08:27	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964788	1	03/28/17 18:21	03/28/17 18:21	LRL

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## GEI-2-032417 L898272-02 GW

Collected by  
Chris D  
Collected date/time  
03/24/17 11:15  
Received date/time  
03/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964734	1	03/28/17 16:50	03/28/17 16:50	AMC
Wet Chemistry by Method 9056A	WG964255	1	03/25/17 16:43	03/25/17 16:43	KCF
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 19:50	03/28/17 19:50	SJM
Metals (ICPMS) by Method 6020	WG966184	1	04/01/17 07:17	04/01/17 14:40	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966467	1	04/02/17 08:35	04/02/17 08:35	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966662	40	04/03/17 08:44	04/03/17 08:44	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964788	1	03/28/17 18:41	03/28/17 18:41	LRL

## F-MW-131-032417 L898272-03 GW

Collected by  
Chris D  
Collected date/time  
03/24/17 12:35  
Received date/time  
03/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964734	1	03/28/17 16:56	03/28/17 16:56	AMC
Wet Chemistry by Method 9056A	WG964255	1	03/25/17 17:15	03/25/17 17:15	KCF
Wet Chemistry by Method 9060A	WG964476	1	03/28/17 20:05	03/28/17 20:05	SJM
Metals (ICPMS) by Method 6020	WG966184	1	04/01/17 07:17	04/01/17 14:52	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966467	1	04/02/17 08:52	04/02/17 08:52	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964788	1	03/28/17 19:01	03/28/17 19:01	LRL

## F-MW-3D-032417 L898272-04 GW

Collected by  
Chris D  
Collected date/time  
03/24/17 13:50  
Received date/time  
03/25/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG964788	1	03/29/17 18:55	03/29/17 18:55	BMB





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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	564000		2710	20000	1	03/28/2017 10:12	<a href="#">WG964237</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8870		51.9	1000	1	03/25/2017 16:12	<a href="#">WG964255</a>
Nitrate	U		22.7	100	1	03/25/2017 16:12	<a href="#">WG964255</a>
Sulfate	U		77.4	5000	1	03/29/2017 18:17	<a href="#">WG964927</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11700		102	1000	1	03/28/2017 19:36	<a href="#">WG964476</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	23800		15.0	100	1	04/01/2017 14:37	<a href="#">WG966184</a>
Manganese	3100		0.250	5.00	1	04/01/2017 14:37	<a href="#">WG966184</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	20500		11.5	27.1	40	04/03/2017 08:27	<a href="#">WG966662</a>
Ethane	U		0.296	1.29	1	04/02/2017 08:18	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 08:18	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.90	J JO	1.05	25.0	1	03/28/2017 18:21	<a href="#">WG964788</a>
Acrylonitrile	U	J3	0.873	2.50	1	03/28/2017 18:21	<a href="#">WG964788</a>
Benzene	U		0.0896	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chlorobenzene	U		0.140	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:21	<a href="#">WG964788</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>



Collected date/time: 03/24/17 10:00

L898272

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:21	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:21	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 18:21	WG964788
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 18:21	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:21	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:21	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:21	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:21	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:21	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:21	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:21	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 18:21	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:21	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 18:21	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 18:21	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 18:21	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:21	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:21	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 18:21	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:21	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 18:21	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:21	WG964788
Naphthalene	0.207	BJ	0.174	0.500	1	03/28/2017 18:21	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:21	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 18:21	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:21	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:21	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:21	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 18:21	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:21	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:21	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:21	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:21	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 18:21	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:21	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:21	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:21	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:21	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:21	WG964788
Vinyl chloride	U		0.118	0.500	1	03/28/2017 18:21	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 18:21	WG964788
(S) Toluene-d8	99.5			80.0-120		03/28/2017 18:21	WG964788
(S) Dibromofluoromethane	95.1			76.0-123		03/28/2017 18:21	WG964788
(S) 4-Bromofluorobenzene	101			80.0-120		03/28/2017 18:21	WG964788

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	420000		2710	20000	1	03/28/2017 16:50	<a href="#">WG964734</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	12500		51.9	1000	1	03/25/2017 16:43	<a href="#">WG964255</a>
Nitrate	U		22.7	100	1	03/25/2017 16:43	<a href="#">WG964255</a>
Sulfate	U		77.4	5000	1	03/25/2017 16:43	<a href="#">WG964255</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8140		102	1000	1	03/28/2017 19:50	<a href="#">WG964476</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	24000		15.0	100	1	04/01/2017 14:40	<a href="#">WG966184</a>
Manganese	898		0.250	5.00	1	04/01/2017 14:40	<a href="#">WG966184</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	15100		11.5	27.1	40	04/03/2017 08:44	<a href="#">WG966662</a>
Ethane	U		0.296	1.29	1	04/02/2017 08:35	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 08:35	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.74	<a href="#">J JO</a>	1.05	25.0	1	03/28/2017 18:41	<a href="#">WG964788</a>
Acrylonitrile	U	<a href="#">J3</a>	0.873	2.50	1	03/28/2017 18:41	<a href="#">WG964788</a>
Benzene	U		0.0896	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Chlorobenzene	U		0.140	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:41	<a href="#">WG964788</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:41	<a href="#">WG964788</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:41	<a href="#">WG964788</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:41	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:41	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 18:41	WG964788
cis-1,2-Dichloroethene	2.25		0.0933	0.500	1	03/28/2017 18:41	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:41	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:41	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:41	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:41	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:41	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:41	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:41	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 18:41	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:41	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 18:41	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 18:41	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 18:41	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:41	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:41	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 18:41	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:41	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 18:41	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:41	WG964788
Naphthalene	0.271	BJ	0.174	0.500	1	03/28/2017 18:41	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:41	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 18:41	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:41	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:41	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:41	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 18:41	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:41	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:41	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:41	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:41	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 18:41	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:41	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:41	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:41	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:41	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:41	WG964788
Vinyl chloride	6.94		0.118	0.500	1	03/28/2017 18:41	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 18:41	WG964788
(S) Toluene-d8	99.3			80.0-120		03/28/2017 18:41	WG964788
(S) Dibromofluoromethane	97.4			76.0-123		03/28/2017 18:41	WG964788
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:41	WG964788

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	166000		2710	20000	1	03/28/2017 16:56	<a href="#">WG964734</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6120		51.9	1000	1	03/25/2017 17:15	<a href="#">WG964255</a>
Nitrate	U		22.7	100	1	03/25/2017 17:15	<a href="#">WG964255</a>
Sulfate	738	J	77.4	5000	1	03/25/2017 17:15	<a href="#">WG964255</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2180		102	1000	1	03/28/2017 20:05	<a href="#">WG964476</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	598		15.0	100	1	04/01/2017 14:52	<a href="#">WG966184</a>
Manganese	1030		0.250	5.00	1	04/01/2017 14:52	<a href="#">WG966184</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	159		0.287	0.678	1	04/02/2017 08:52	<a href="#">WG966467</a>
Ethane	1.19	J	0.296	1.29	1	04/02/2017 08:52	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 08:52	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.31	J JO	1.05	25.0	1	03/28/2017 19:01	<a href="#">WG964788</a>
Acrylonitrile	U	J3	0.873	2.50	1	03/28/2017 19:01	<a href="#">WG964788</a>
Benzene	U		0.0896	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Bromoform	U		0.186	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Chlorobenzene	U		0.140	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 19:01	<a href="#">WG964788</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 19:01	<a href="#">WG964788</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 19:01	<a href="#">WG964788</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 19:01	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 19:01	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 19:01	WG964788
cis-1,2-Dichloroethene	45.6		0.0933	0.500	1	03/28/2017 19:01	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 19:01	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 19:01	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 19:01	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 19:01	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 19:01	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 19:01	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 19:01	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 19:01	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 19:01	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 19:01	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 19:01	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 19:01	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 19:01	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 19:01	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 19:01	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 19:01	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 19:01	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 19:01	WG964788
Naphthalene	0.273	BJ	0.174	0.500	1	03/28/2017 19:01	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 19:01	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 19:01	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 19:01	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 19:01	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 19:01	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 19:01	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 19:01	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 19:01	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 19:01	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 19:01	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 19:01	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 19:01	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 19:01	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 19:01	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 19:01	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 19:01	WG964788
Vinyl chloride	0.249	J	0.118	0.500	1	03/28/2017 19:01	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 19:01	WG964788
(S) Toluene-d8	98.5			80.0-120		03/28/2017 19:01	WG964788
(S) Dibromofluoromethane	96.7			76.0-123		03/28/2017 19:01	WG964788
(S) 4-Bromofluorobenzene	99.8			80.0-120		03/28/2017 19:01	WG964788

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	1.89	J	1.05	25.0	1	03/29/2017 18:55	WG964788
Acrylonitrile	U	J3	0.873	2.50	1	03/29/2017 18:55	WG964788
Benzene	U		0.0896	0.500	1	03/29/2017 18:55	WG964788
Bromobenzene	U		0.133	0.500	1	03/29/2017 18:55	WG964788
Bromodichloromethane	U		0.0800	0.500	1	03/29/2017 18:55	WG964788
Bromochloromethane	U		0.145	0.500	1	03/29/2017 18:55	WG964788
Bromoform	U		0.186	0.500	1	03/29/2017 18:55	WG964788
Bromomethane	U		0.157	0.500	1	03/29/2017 18:55	WG964788
n-Butylbenzene	U		0.143	0.500	1	03/29/2017 18:55	WG964788
sec-Butylbenzene	U		0.134	0.500	1	03/29/2017 18:55	WG964788
tert-Butylbenzene	U		0.183	0.500	1	03/29/2017 18:55	WG964788
Carbon disulfide	U		0.101	0.500	1	03/29/2017 18:55	WG964788
Carbon tetrachloride	U		0.159	0.500	1	03/29/2017 18:55	WG964788
Chlorobenzene	U		0.140	0.500	1	03/29/2017 18:55	WG964788
Chlorodibromomethane	U		0.128	0.500	1	03/29/2017 18:55	WG964788
Chloroethane	U		0.141	0.500	1	03/29/2017 18:55	WG964788
2-Chloroethyl vinyl ether	U	J6	0.877	2.50	1	03/29/2017 18:55	WG964788
Chloroform	U		0.0860	0.500	1	03/29/2017 18:55	WG964788
Chloromethane	U		0.153	0.500	1	03/29/2017 18:55	WG964788
2-Chlorotoluene	U		0.111	0.500	1	03/29/2017 18:55	WG964788
4-Chlorotoluene	U		0.0972	0.500	1	03/29/2017 18:55	WG964788
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/29/2017 18:55	WG964788
1,2-Dibromoethane	U		0.193	0.500	1	03/29/2017 18:55	WG964788
Dibromomethane	U		0.117	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/29/2017 18:55	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/29/2017 18:55	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/29/2017 18:55	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/29/2017 18:55	WG964788
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/29/2017 18:55	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/29/2017 18:55	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/29/2017 18:55	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/29/2017 18:55	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/29/2017 18:55	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/29/2017 18:55	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/29/2017 18:55	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/29/2017 18:55	WG964788
Ethylbenzene	U		0.158	0.500	1	03/29/2017 18:55	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/29/2017 18:55	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/29/2017 18:55	WG964788
n-Hexane	U		0.305	1.00	1	03/29/2017 18:55	WG964788
Iodomethane	U		0.377	2.50	1	03/29/2017 18:55	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/29/2017 18:55	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/29/2017 18:55	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/29/2017 18:55	WG964788
Methylene Chloride	U		1.07	2.50	1	03/29/2017 18:55	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/29/2017 18:55	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/29/2017 18:55	WG964788
Naphthalene	U		0.174	0.500	1	03/29/2017 18:55	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/29/2017 18:55	WG964788
Styrene	U		0.117	0.500	1	03/29/2017 18:55	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/29/2017 18:55	WG964788

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Tetrachloroethene	U		0.199	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Toluene	U		0.412	1.00	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Trichloroethene	U		0.153	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Trichlorofluoromethane	U		0.130	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Vinyl acetate	U		0.645	2.50	1	03/29/2017 18:55	<a href="#">WG964788</a>
Vinyl chloride	U		0.118	0.500	1	03/29/2017 18:55	<a href="#">WG964788</a>
Xylenes, Total	U		0.316	1.50	1	03/29/2017 18:55	<a href="#">WG964788</a>
(S) Toluene-d8	110			80.0-120		03/29/2017 18:55	<a href="#">WG964788</a>
(S) Dibromofluoromethane	101			76.0-123		03/29/2017 18:55	<a href="#">WG964788</a>
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 18:55	<a href="#">WG964788</a>

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



Method Blank (MB)

(MB) R3206327-1 03/28/17 07:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	ug/l		ug/l	ug/l
Alkalinity	3450	J	2710	20000

1 Cp

2 Tc

3 Ss

L898246-05 Original Sample (OS) • Duplicate (DUP)

(OS) L898246-05 03/28/17 07:57 • (DUP) R3206327-3 03/28/17 08:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l		%		%
Alkalinity	142000	145000	1	2.00		20

4 Cn

5 Sr

L898173-12 Original Sample (OS) • Duplicate (DUP)

(OS) L898173-12 03/28/17 11:20 • (DUP) R3206327-6 03/28/17 11:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l		%		%
Alkalinity	141000	128000	1	9.00		20

6 Qc

7 Gl

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

(LCS) R3206327-4 03/28/17 09:04 • (LCSD) R3206327-5 03/28/17 10:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	104000	111000	104	111	85.0-115			7.00	20

8 Al

9 Sc





Method Blank (MB)

(MB) R3206451-2 03/28/17 13:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3680	J	2710	20000

1 Cp

2 Tc

3 Ss

L898272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-03 03/28/17 16:56 • (DUP) R3206451-7 03/28/17 17:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	166000	162000	1	3.00		20

4 Cn

5 Sr

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

(LCS) R3206451-5 03/28/17 14:43 • (LCSD) R3206451-6 03/28/17 16:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	102000	92500	102	93.0	85.0-115			10.0	20

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3206017-1 03/25/17 06:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898272-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-01 03/25/17 16:12 • (DUP) R3206017-4 03/25/17 16:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	8870	8660	1	2		15
Nitrate	U	0.000	1	0		15
Sulfate	U	0.000	1	0		15

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

(LCS) R3206017-2 03/25/17 07:00 • (LCSD) R3206017-3 03/25/17 07:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	38700	38700	97	97	80-120			0	15
Nitrate	8000	7960	7960	99	99	80-120			0	15
Sulfate	40000	38900	38900	97	97	80-120			0	15

L898272-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L898272-02 03/25/17 16:43 • (MS) R3206017-5 03/25/17 16:59

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	12500	62500	100	1	80-120	
Nitrate	5000	U	4710	94	1	80-120	
Sulfate	50000	U	48300	97	1	80-120	



Method Blank (MB)

(MB) R3206903-1 03/29/17 06:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

<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

L897906-03 Original Sample (OS) • Duplicate (DUP)

(OS) L897906-03 03/29/17 12:08 • (DUP) R3206903-4 03/29/17 12:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	U	0.000	1	0		15

L898561-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898561-01 03/29/17 18:54 • (DUP) R3206903-6 03/29/17 19:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	24100	24400	1	1		15

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

(LCS) R3206903-2 03/29/17 06:18 • (LCSD) R3206903-3 03/29/17 06:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	40400	40000	101	100	80-120			1	15

L897906-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L897906-06 03/29/17 12:45 • (MS) R3206903-5 03/29/17 13:04

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	31900	79700	96	1	80-120	



Method Blank (MB)

(MB) R3206515-1 03/28/17 10:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L897786-16 Original Sample (OS) • Duplicate (DUP)

(OS) L897786-16 03/28/17 11:46 • (DUP) R3206515-3 03/28/17 12:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1090	1120	1	3		20

L897952-04 Original Sample (OS) • Duplicate (DUP)

(OS) L897952-04 03/28/17 19:09 • (DUP) R3206515-7 03/28/17 19:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	3940	3940	1	0		20

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

(LCS) R3206515-2 03/28/17 11:07 • (LCSD) R3206515-4 03/28/17 13:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	73200	73300	98	98	85-115			0	20

L897833-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L897833-01 03/28/17 15:56 • (MS) R3206515-5 03/28/17 16:14 • (MSD) R3206515-6 03/28/17 16:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	2170	52800	53600	101	103	1	80-120			2	20



Method Blank (MB)

(MB) R3207597-1 04/01/17 14:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

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) R3207597-2 04/01/17 14:16 • (LCSD) R3207597-3 04/01/17 14:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Iron	5000	5040	5080	101	102	80-120			1	20
Manganese	50.0	48.3	47.7	97	95	80-120			1	20

L899117-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899117-01 04/01/17 14:23 • (MS) R3207597-5 04/01/17 14:30 • (MSD) R3207597-6 04/01/17 14:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Iron	5000	1530	6770	7340	105	116	1	75-125			8	20
Manganese	50.0	1150	1330	1520	368	746	1	75-125	<u>V</u>	<u>V</u>	13	20





Method Blank (MB)

(MB) R3207637-1 04/02/17 07:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898277-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898277-01 04/02/17 09:08 • (DUP) R3207637-2 04/02/17 10:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L898278-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898278-01 04/02/17 11:05 • (DUP) R3207637-3 04/02/17 14:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3207637-4 04/02/17 14:27 • (LCSD) R3207637-5 04/02/17 14:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.0	70.0	103	103	70.0-130			0.100	20
Ethane	129	125	126	97.2	97.8	70.0-130			0.620	20
Ethene	127	125	126	98.4	99.0	70.0-130			0.700	20



Method Blank (MB)

(MB) R3207733-1 04/03/17 08:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L898516-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-03 04/03/17 10:24 • (DUP) R3207733-2 04/03/17 11:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	11500	11900	1	3.67		20

7 Gl

8 Al

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

(LCS) R3207733-3 04/03/17 11:31 • (LCSD) R3207733-4 04/03/17 11:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	72.3	73.0	107	108	70.0-130			0.890	20

9 Sc



Method Blank (MB)

(MB) R3206627-1 03/28/17 09:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3206627-1 03/28/17 09:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.196	J	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	98.7			80.0-120
(S) Dibromofluoromethane	97.8			76.0-123
(S) 4-Bromofluorobenzene	101			80.0-120

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) R3206627-2 03/28/17 11:25 • (LCSD) R3206627-3 03/28/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	156	196	125	157	10.0-160			22.5	23
Acrylonitrile	125	126	156	101	125	60.0-142		J3	21.2	20
Benzene	25.0	26.6	27.6	106	110	69.0-123			3.47	20
Bromobenzene	25.0	27.2	26.6	109	106	79.0-120			2.34	20
Bromodichloromethane	25.0	25.3	26.6	101	107	76.0-120			5.08	20
Bromochloromethane	25.0	26.9	28.6	108	115	76.0-122			6.21	20
Bromoform	25.0	24.1	26.3	96.5	105	67.0-132			8.71	20
Bromomethane	25.0	25.4	28.0	102	112	18.0-160			9.81	20
n-Butylbenzene	25.0	29.7	28.7	119	115	72.0-126			3.29	20
sec-Butylbenzene	25.0	29.7	27.9	119	111	74.0-121			6.39	20
tert-Butylbenzene	25.0	29.3	27.7	117	111	75.0-122			5.44	20
Carbon disulfide	25.0	22.9	23.2	91.7	92.6	55.0-127			1.00	20
Carbon tetrachloride	25.0	26.2	26.7	105	107	63.0-122			1.94	20
Chlorobenzene	25.0	28.0	27.2	112	109	79.0-121			2.98	20
Chlorodibromomethane	25.0	26.0	27.3	104	109	75.0-125			4.85	20
Chloroethane	25.0	26.3	27.1	105	109	47.0-152			3.01	20
2-Chloroethyl vinyl ether	125	117	136	94.0	109	10.0-160			14.6	22
Chloroform	25.0	26.4	27.5	106	110	72.0-121			4.08	20
Chloromethane	25.0	24.4	25.1	97.5	100	48.0-139			2.90	20
2-Chlorotoluene	25.0	29.1	28.1	116	112	74.0-122			3.44	20
4-Chlorotoluene	25.0	29.5	28.1	118	112	79.0-120			4.77	20
1,2-Dibromo-3-Chloropropane	25.0	22.7	26.7	90.8	107	64.0-127			16.3	20
1,2-Dibromoethane	25.0	24.6	26.1	98.4	104	77.0-123			5.90	20
Dibromomethane	25.0	24.7	27.2	98.9	109	78.0-120			9.35	20
1,2-Dichlorobenzene	25.0	27.4	28.1	110	112	80.0-120			2.55	20
1,3-Dichlorobenzene	25.0	28.9	28.0	115	112	72.0-123			3.16	20
1,4-Dichlorobenzene	25.0	26.8	27.1	107	108	77.0-120			1.20	20
Dichlorodifluoromethane	25.0	28.3	28.2	113	113	49.0-155			0.570	20
1,1-Dichloroethane	25.0	27.9	28.3	112	113	70.0-126			1.52	20
1,2-Dichloroethane	25.0	26.1	28.4	104	114	67.0-126			8.59	20
1,1-Dichloroethene	25.0	25.9	26.4	104	105	64.0-129			1.64	20
cis-1,2-Dichloroethene	25.0	26.6	27.4	107	110	73.0-120			2.92	20
trans-1,2-Dichloroethene	25.0	25.9	26.3	104	105	71.0-121			1.62	20
1,2-Dichloropropane	25.0	27.2	27.9	109	112	75.0-125			2.48	20
1,1-Dichloropropene	25.0	27.3	27.3	109	109	71.0-129			0.0200	20
1,3-Dichloropropane	25.0	26.0	27.0	104	108	80.0-121			3.60	20
cis-1,3-Dichloropropene	25.0	26.7	28.1	107	112	79.0-123			5.20	20
trans-1,3-Dichloropropene	25.0	26.5	29.9	106	120	74.0-127			12.2	20
trans-1,4-Dichloro-2-butene	25.0	23.8	28.2	95.1	113	55.0-134			17.0	20
2,2-Dichloropropane	25.0	27.4	28.9	109	116	60.0-125			5.44	20

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) R3206627-2 03/28/17 11:25 • (LCSD) R3206627-3 03/28/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	26.5	28.6	106	114	59.0-133			7.42	20
Ethylbenzene	25.0	28.5	27.1	114	108	77.0-120			5.07	20
Hexachloro-1,3-butadiene	25.0	28.5	27.0	114	108	64.0-131			5.58	20
2-Hexanone	125	135	168	108	135	58.0-147		J3	21.8	20
n-Hexane	25.0	22.3	22.8	89.4	91.4	56.0-124			2.21	20
Iodomethane	125	132	134	105	107	57.0-140			2.09	20
Isopropylbenzene	25.0	29.1	27.7	116	111	75.0-120			4.78	20
p-Isopropyltoluene	25.0	30.1	28.1	120	112	74.0-126			6.69	20
2-Butanone (MEK)	125	129	175	103	140	37.0-158		J3	30.1	20
Methylene Chloride	25.0	25.5	26.7	102	107	66.0-121			4.60	20
4-Methyl-2-pentanone (MIBK)	125	122	157	97.4	126	59.0-143		J3	25.3	20
Methyl tert-butyl ether	25.0	24.5	28.2	98.2	113	64.0-123			14.0	20
Naphthalene	25.0	23.3	25.6	93.0	102	62.0-128			9.44	20
n-Propylbenzene	25.0	29.1	27.5	117	110	79.0-120			5.70	20
Styrene	25.0	29.2	28.4	117	114	78.0-124			2.71	20
1,1,1,2-Tetrachloroethane	25.0	28.1	27.4	113	109	75.0-122			2.81	20
1,1,2,2-Tetrachloroethane	25.0	23.7	26.6	94.9	106	71.0-122			11.4	20
1,1,2-Trichlorotrifluoroethane	25.0	27.7	27.6	111	110	61.0-136			0.250	20
Tetrachloroethene	25.0	27.5	26.7	110	107	70.0-127			2.91	20
Toluene	25.0	26.0	26.4	104	105	77.0-120			1.32	20
1,2,3-Trichlorobenzene	25.0	27.0	27.2	108	109	61.0-133			0.750	20
1,2,4-Trichlorobenzene	25.0	29.3	28.7	117	115	69.0-129			2.05	20
1,1,1-Trichloroethane	25.0	26.9	27.4	107	110	68.0-122			2.05	20
1,1,2-Trichloroethane	25.0	23.9	25.3	95.5	101	78.0-120			5.83	20
Trichloroethene	25.0	26.3	26.5	105	106	78.0-120			0.680	20
Trichlorofluoromethane	25.0	28.5	28.9	114	116	56.0-137			1.49	20
1,2,3-Trichloropropane	25.0	24.5	27.7	98.2	111	72.0-124			12.1	20
1,2,4-Trimethylbenzene	25.0	29.0	27.2	116	109	75.0-120			6.14	20
1,2,3-Trimethylbenzene	25.0	27.2	27.2	109	109	75.0-120			0.0100	20
1,3,5-Trimethylbenzene	25.0	29.1	27.5	116	110	75.0-120			5.53	20
Vinyl acetate	125	142	164	114	131	46.0-160			14.3	20
Vinyl chloride	25.0	26.2	26.9	105	108	64.0-133			2.77	20
Xylenes, Total	75.0	84.7	81.0	113	108	77.0-120			4.47	20
(S) Toluene-d8				98.2	99.3	80.0-120				
(S) Dibromofluoromethane				94.8	99.6	76.0-123				
(S) 4-Bromofluorobenzene				103	100	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L898272-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898272-04 03/29/17 18:55 • (MS) R3206853-1 03/29/17 19:15 • (MSD) R3206853-2 03/29/17 19:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	1.89	91.6	93.8	71.8	73.5	1	10.0-139			2.34	25
Acrylonitrile	125	U	148	157	119	126	1	46.0-159			5.76	23
Benzene	25.0	U	21.0	22.6	84.2	90.5	1	34.0-147			7.29	20
Bromobenzene	25.0	U	24.1	25.0	96.6	100	1	51.0-137			3.49	20
Bromodichloromethane	25.0	U	26.4	27.4	106	110	1	52.0-135			3.55	20
Bromochloromethane	25.0	U	25.4	26.9	102	107	1	53.0-138			5.61	20
Bromoform	25.0	U	23.5	23.9	94.1	95.8	1	50.0-146			1.76	20
Bromomethane	25.0	U	28.2	31.4	113	125	1	10.0-160			10.7	23
n-Butylbenzene	25.0	U	23.7	24.3	94.8	97.1	1	50.0-144			2.38	20
sec-Butylbenzene	25.0	U	23.5	24.4	94.1	97.5	1	48.0-143			3.59	20
tert-Butylbenzene	25.0	U	21.7	22.3	86.6	89.4	1	50.0-142			3.15	20
Carbon disulfide	25.0	U	25.4	27.9	102	112	1	10.0-147			9.51	20
Carbon tetrachloride	25.0	U	21.4	23.7	85.7	94.7	1	41.0-138			10.0	20
Chlorobenzene	25.0	U	24.8	25.3	99.3	101	1	52.0-141			2.06	20
Chlorodibromomethane	25.0	U	26.6	27.3	106	109	1	54.0-142			2.67	20
Chloroethane	25.0	U	27.4	31.0	110	124	1	23.0-160			12.2	20
2-Chloroethyl vinyl ether	125	U	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40
Chloroform	25.0	U	24.6	26.1	98.3	105	1	50.0-139			6.17	20
Chloromethane	25.0	U	26.3	28.8	105	115	1	14.0-151			8.85	20
2-Chlorotoluene	25.0	U	24.3	25.3	97.2	101	1	48.0-142			4.14	20
4-Chlorotoluene	25.0	U	24.6	25.3	98.3	101	1	52.0-139			3.02	20
1,2-Dibromo-3-Chloropropane	25.0	U	24.8	25.9	99.2	104	1	49.0-144			4.39	24
1,2-Dibromoethane	25.0	U	25.3	26.6	101	106	1	54.0-140			5.14	20
Dibromomethane	25.0	U	23.3	24.1	93.1	96.3	1	53.0-138			3.41	20
1,2-Dichlorobenzene	25.0	U	23.7	24.7	94.6	99.0	1	56.0-139			4.46	20
1,3-Dichlorobenzene	25.0	U	23.4	24.2	93.7	96.9	1	50.0-141			3.38	20
1,4-Dichlorobenzene	25.0	U	22.9	23.2	91.5	92.8	1	53.0-136			1.39	20
Dichlorodifluoromethane	25.0	U	26.5	28.2	106	113	1	20.0-160			6.11	21
1,1-Dichloroethane	25.0	U	25.3	27.2	101	109	1	47.0-143			7.28	20
1,2-Dichloroethane	25.0	U	27.2	28.4	109	114	1	47.0-141			4.44	20
1,1-Dichloroethene	25.0	U	28.5	30.7	114	123	1	31.0-148			7.52	20
cis-1,2-Dichloroethene	25.0	U	25.1	27.1	100	109	1	43.0-142			7.76	20
trans-1,2-Dichloroethene	25.0	U	24.1	25.7	96.3	103	1	36.0-141			6.65	20
1,2-Dichloropropane	25.0	U	26.8	27.7	107	111	1	51.0-141			3.15	20
1,1-Dichloropropene	25.0	U	25.2	27.0	101	108	1	42.0-146			6.87	20
1,3-Dichloropropane	25.0	U	25.3	26.5	101	106	1	58.0-139			4.76	20
cis-1,3-Dichloropropene	25.0	U	28.4	29.8	114	119	1	53.0-139			4.96	20
trans-1,3-Dichloropropene	25.0	U	27.8	29.1	111	116	1	51.0-143			4.57	20
trans-1,4-Dichloro-2-butene	25.0	U	24.6	25.5	98.5	102	1	40.0-150			3.59	21
2,2-Dichloropropane	25.0	U	24.4	27.7	97.7	111	1	43.0-139			12.4	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L898272-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898272-04 03/29/17 18:55 • (MS) R3206853-1 03/29/17 19:15 • (MSD) R3206853-2 03/29/17 19:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	U	26.8	29.0	107	116	1	44.0-144			7.73	20
Ethylbenzene	25.0	U	21.1	21.7	84.5	86.7	1	42.0-147			2.52	20
Hexachloro-1,3-butadiene	25.0	U	22.5	23.7	90.1	95.0	1	44.0-146			5.31	21
2-Hexanone	125	U	128	133	103	106	1	36.0-145			3.29	23
n-Hexane	25.0	U	20.8	22.5	83.3	90.0	1	13.0-145			7.64	20
Iodomethane	125	U	152	165	122	132	1	30.0-151			7.94	20
Isopropylbenzene	25.0	U	21.4	22.2	85.6	88.7	1	48.0-141			3.63	20
p-Isopropyltoluene	25.0	U	24.5	25.2	98.2	101	1	49.0-146			2.70	20
2-Butanone (MEK)	125	U	125	132	99.9	106	1	12.0-149			5.72	24
Methylene Chloride	25.0	U	23.4	25.2	93.6	101	1	42.0-135			7.35	20
4-Methyl-2-pentanone (MIBK)	125	U	174	182	140	146	1	44.0-160			4.38	22
Methyl tert-butyl ether	25.0	U	27.0	28.8	108	115	1	42.0-142			6.41	20
Naphthalene	25.0	U	21.6	22.7	86.2	90.9	1	42.0-146			5.28	24
n-Propylbenzene	25.0	U	21.5	22.3	86.0	89.1	1	47.0-144			3.55	20
Styrene	25.0	U	22.9	24.3	91.4	97.0	1	47.0-147			5.97	20
1,1,1,2-Tetrachloroethane	25.0	U	25.7	26.2	103	105	1	52.0-140			2.17	20
1,1,2,2-Tetrachloroethane	25.0	U	25.2	26.3	101	105	1	46.0-149			4.14	20
1,1,2-Trichlorotrifluoroethane	25.0	U	25.9	28.4	104	113	1	40.0-151			8.89	21
Tetrachloroethene	25.0	U	24.1	25.3	96.2	101	1	38.0-147			5.19	20
Toluene	25.0	U	21.3	22.2	85.0	88.9	1	42.0-141			4.40	20
1,2,3-Trichlorobenzene	25.0	U	22.5	23.8	90.0	95.4	1	45.0-145			5.75	22
1,2,4-Trichlorobenzene	25.0	U	22.8	23.4	91.1	93.5	1	49.0-147			2.63	21
1,1,1-Trichloroethane	25.0	U	25.4	27.7	102	111	1	46.0-140			8.47	20
1,1,2-Trichloroethane	25.0	U	24.9	25.5	99.4	102	1	54.0-139			2.67	20
Trichloroethene	25.0	U	25.5	25.9	102	104	1	32.0-156			1.63	20
Trichlorofluoromethane	25.0	U	27.7	30.7	111	123	1	32.0-152			10.3	20
1,2,3-Trichloropropane	25.0	U	26.2	27.0	105	108	1	54.0-143			3.14	21
1,2,4-Trimethylbenzene	25.0	U	24.2	25.2	96.9	101	1	41.0-146			4.11	20
1,2,3-Trimethylbenzene	25.0	U	20.7	21.7	82.8	86.7	1	48.0-138			4.54	20
1,3,5-Trimethylbenzene	25.0	U	23.5	24.5	94.1	98.0	1	44.0-143			4.08	20
Vinyl acetate	125	U	170	179	136	143	1	30.0-160			4.78	20
Vinyl chloride	25.0	U	29.0	32.1	116	129	1	24.0-153			10.1	20
Xylenes, Total	75.0	U	61.9	65.2	82.5	86.9	1	41.0-148			5.19	20
(S) Toluene-d8					108	109		80.0-120				
(S) Dibromofluoromethane					101	104		76.0-123				
(S) 4-Bromofluorobenzene					100	99.5		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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		

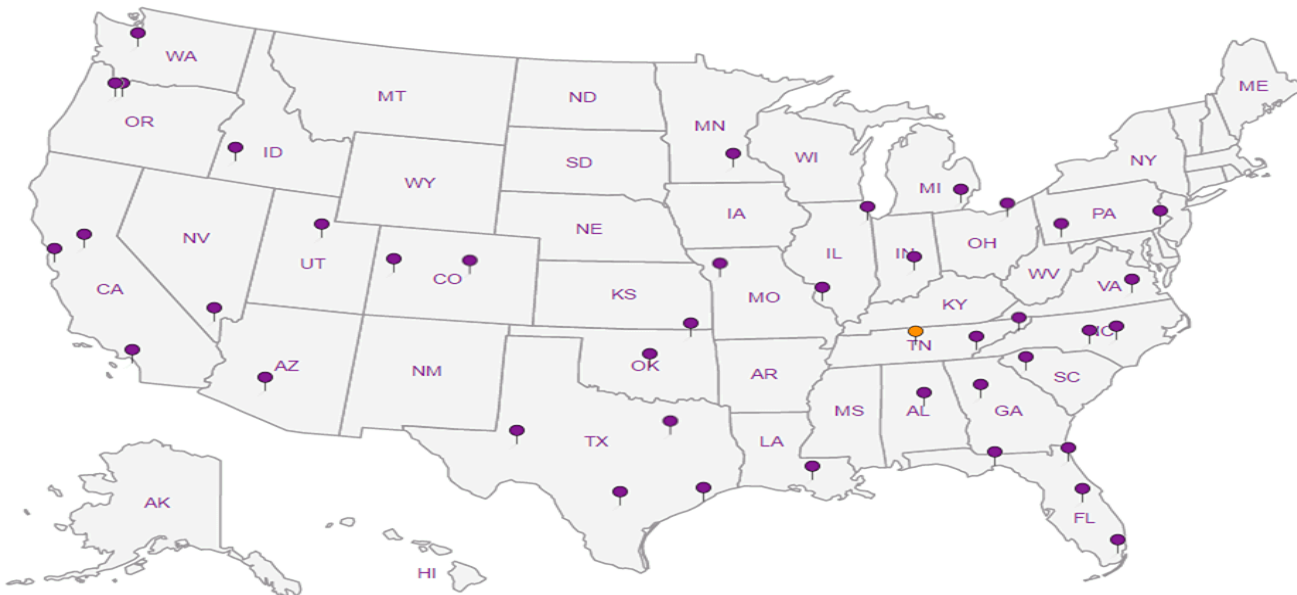
## Third Party & Federal Accreditations

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.**



<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





## Brian Ford

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**From:** Bill Haldeman <bhaldeman@pesenv.com>  
**Sent:** Wednesday, April 05, 2017 3:04 PM  
**To:** Brian Ford  
**Subject:** RE: ESC Lab Sciences Report for 1413.001.02.002 American Linen Supply L897952

Brian, looking at these results, I noticed that the PES sample names for the last two samples have typos. Can you change those at this point and reissue the report? If so, the third sample, listed as F-MW-31-032417, should be labeled as F-MW-131-032417, and the fourth sample, listed as F-MW-30-032417, should be labeled F-MW-3D-032417. Let me know if that is possible for both the pdf and EDD. Thanks! -Bill

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**From:** [bford@esclabsciences.com](mailto:bford@esclabsciences.com) [<mailto:bford@esclabsciences.com>]  
**Sent:** Thursday, March 30, 2017 3:32 PM  
**To:** Bill Haldeman  
**Subject:** ESC Lab Sciences Report for 1413.001.02.002 American Linen Supply L897952  
**Importance:** High

Thank you for choosing ESC Lab Sciences!

Please find enclosed PDF report containing your laboratory analysis and chain of custody.

ESC is pleased to announce that we are accepting samples from 21 states for the new 3511 prep technique for PAHs by 8270 and 8270SIM. This technique allows for a 98% reduction in solvent usage, and requires only 2 to 3 40 mL non-preserved amber vials vs. the traditional 1 or 2 amber liter jars. Please contact your Technical Service Representative for details.

ESC is leading the laboratory industry with our On-line Data Management tools. Please contact your Technical Service Representative to learn how to create historical Excel tables or access data in real time using powerful and intuitive software that is only available at <http://www.esclabsciences.com>.

How are we doing? ESC would like to hear from you. Please take a moment and complete our customer feedback survey at <https://www.surveymonkey.com/s/TCGLB7T>.

ESC ... "Your Lab of Choice"

Brian Ford  
Technical Service Representative  
615-773-9772  
[bford@esclabsciences.com](mailto:bford@esclabsciences.com)

ESC Lab Sciences  
12065 Lebanon Rd  
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Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

## MEMORANDUM

**TO:** Project File **DATE:** April 20, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 24, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L898272

---

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 24, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898272. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898272 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in one cooler and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:



- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acetone were identified by the laboratory for samples GEI-1-032417, GEI-2-032417, and F-MW-131-032417 associated with analytical batch WG964788 (analyzed on March 28, 2017). The acetone result is qualified by the laboratory “J0” to indicate that percent difference for acetone CCV is outside of laboratory acceptance criteria. **Associated sample GEI-1-032417, GEI-2-032417, and F-MW-131-032417 results for acetone are detected less than the reporting detection limits (RDLs) and estimated (J).**

### **Method Blank Results**

#### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following discussions:

- A low level naphthalene was reported in the method blank (WG964788). The detection is less than the RDL but greater than the method detection limit (MDL). Low level naphthalene detections are reported in associated samples GEI-1-032417, GEI-2-032417, and F-MW-131-032417. **All naphthalene results in associated samples are qualified as non-detect (U) due to blank contamination.**

#### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

#### *USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than low level alkalinity detection in the blank.

### **Trip Blank Results**

#### *USEPA Method 8260C:*

A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

#### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

#### *Method RSK-175:*

Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD.

#### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

#### *General Chemistry:*

*SM 2320B:* A laboratory duplicate sample analyses were performed on a non-client sample within the analytical batch and on sample F-MW-131-032417. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples, and on client sample GEI-1-032417. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample analysis was performed on a non-client sample within the analytical batch. The primary/duplicate RPD for TOC analysis is within the laboratory control limit of 20%.

### **Surrogate Recoveries**

#### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## Laboratory Control Samples

### *USEPA Method 8260C (VOCs):*

LCS/LCSDs were analyzed with each analytical batch by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG964788) RPDs for compounds acrylonitrile, n-hexane, 2-butanone, and 4-methyl-2-pentanone (MIBK) are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water with the following discussion:

### *General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

## Matrix Spike/Matrix Spike Duplicates

### *USEPA Method 8260C (VOCs):*

MS/MSD analysis was performed on sample F-MW-3D-032417. The MS/MSD percent recoveries for target analytes are within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. Laboratory notes indicate that the sample matrix interfered with the ability to make an accurate determination. **Compound 2CEVE result for sample F-MW-3D-032417 is rejected (R) and the data are not usable due to poor recovery.** For the remaining samples LCS/LCSD results are acceptable for this compound thereby demonstrating laboratory capability and accuracy. Refer to LCS/LCSD data for additional information on 2CEVE.

*Method RSK-175:*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Spike (MS) recovery for manganese is outside of acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* Matrix spike analysis was performed on non-client samples within the analytical batch. MS % Rs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use with one exception:

- **Sample F-MW-3D-032417 result for VOC compound 2-chloroethyl vinyl ether (2CEVE) is rejected (R) and the result is not usable due to poor spike recoveries.**





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	564000		2710	20000	1	03/28/2017 10:12	<a href="#">WG964237</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8870		51.9	1000	1	03/25/2017 16:12	<a href="#">WG964255</a>
Nitrate	U		22.7	100	1	03/25/2017 16:12	<a href="#">WG964255</a>
Sulfate	U		77.4	5000	1	03/29/2017 18:17	<a href="#">WG964927</a>

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11700		102	1000	1	03/28/2017 19:36	<a href="#">WG964476</a>

6 Qc

7 GI

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	23800		15.0	100	1	04/01/2017 14:37	<a href="#">WG966184</a>
Manganese	3100		0.250	5.00	1	04/01/2017 14:37	<a href="#">WG966184</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	20500		11.5	27.1	40	04/03/2017 08:27	<a href="#">WG966662</a>
Ethane	U		0.296	1.29	1	04/02/2017 08:18	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 08:18	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.90	J J0	1.05	25.0	1	03/28/2017 18:21	<a href="#">WG964788</a>
Acrylonitrile	U	J3	0.873	2.50	1	03/28/2017 18:21	<a href="#">WG964788</a>
Benzene	U		0.0896	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromoform	U		0.186	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Bromomethane	U		0.157	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chlorobenzene	U		0.140	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloroethane	U		0.141	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloroform	U		0.0860	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
Chloromethane	U		0.153	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:21	<a href="#">WG964788</a>
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:21	<a href="#">WG964788</a>

4/26/17





Collected date/time: 03/24/17 10:00

L898272

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:21	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:21	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 18:21	WG964788
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/28/2017 18:21	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 18:21	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:21	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:21	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:21	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:21	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:21	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:21	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:21	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:21	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 18:21	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:21	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 18:21	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 18:21	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 18:21	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:21	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:21	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 18:21	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:21	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 18:21	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:21	WG964788
Naphthalene	0.207	W B J	0.174	0.500	1	03/28/2017 18:21	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:21	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 18:21	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:21	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:21	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:21	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 18:21	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:21	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:21	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:21	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:21	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 18:21	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:21	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:21	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:21	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:21	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:21	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:21	WG964788
Vinyl chloride	U		0.118	0.500	1	03/28/2017 18:21	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 18:21	WG964788
(S) Toluene-d8	99.5			80.0-120		03/28/2017 18:21	WG964788
(S) Dibromofluoromethane	95.1			76.0-123		03/28/2017 18:21	WG964788
(S) 4-Bromofluorobenzene	101			80.0-120		03/28/2017 18:21	WG964788

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

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Collected date/time: 03/24/17 11:15

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	ug/l		ug/l	ug/l		date / time	
Alkalinity	420000		2710	20000	1	03/28/2017 16:50	WG964734

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	ug/l		ug/l	ug/l		date / time	
Chloride	12500		51.9	1000	1	03/25/2017 16:43	WG964255
Nitrate	U		22.7	100	1	03/25/2017 16:43	WG964255
Sulfate	U		77.4	5000	1	03/25/2017 16:43	WG964255

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8140		102	1000	1	03/28/2017 19:50	WG964476

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	ug/l		ug/l	ug/l		date / time	
Iron	24000		15.0	100	1	04/01/2017 14:40	WG966184
Manganese	898		0.250	5.00	1	04/01/2017 14:40	WG966184

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	ug/l		ug/l	ug/l		date / time	
Methane	15100		11.5	27.1	40	04/03/2017 08:44	WG966662
Ethane	U		0.296	1.29	1	04/02/2017 08:35	WG966467
Ethene	U		0.422	1.27	1	04/02/2017 08:35	WG966467

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	ug/l		ug/l	ug/l		date / time	
Acetone	1.74	JJO	1.05	25.0	1	03/28/2017 18:41	WG964788
Acrylonitrile	U	J3	0.873	2.50	1	03/28/2017 18:41	WG964788
Benzene	U		0.0896	0.500	1	03/28/2017 18:41	WG964788
Bromobenzene	U		0.133	0.500	1	03/28/2017 18:41	WG964788
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 18:41	WG964788
Bromochloromethane	U		0.145	0.500	1	03/28/2017 18:41	WG964788
Bromoform	U		0.186	0.500	1	03/28/2017 18:41	WG964788
Bromomethane	U		0.157	0.500	1	03/28/2017 18:41	WG964788
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 18:41	WG964788
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 18:41	WG964788
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 18:41	WG964788
Carbon disulfide	U		0.101	0.500	1	03/28/2017 18:41	WG964788
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 18:41	WG964788
Chlorobenzene	U		0.140	0.500	1	03/28/2017 18:41	WG964788
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 18:41	WG964788
Chloroethane	U		0.141	0.500	1	03/28/2017 18:41	WG964788
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 18:41	WG964788
Chloroform	U		0.0860	0.500	1	03/28/2017 18:41	WG964788
Chloromethane	U		0.153	0.500	1	03/28/2017 18:41	WG964788
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 18:41	WG964788
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 18:41	WG964788
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 18:41	WG964788
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 18:41	WG964788

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Collected date/time: 03/24/17 11:15

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 18:41	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 18:41	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 18:41	WG964788
cis-1,2-Dichloroethene	2.25		0.0933	0.500	1	03/28/2017 18:41	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 18:41	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 18:41	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 18:41	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 18:41	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 18:41	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 18:41	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 18:41	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 18:41	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 18:41	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 18:41	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 18:41	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 18:41	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 18:41	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 18:41	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 18:41	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 18:41	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 18:41	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 18:41	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 18:41	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 18:41	WG964788
Naphthalene	0.271	U B J	0.174	0.500	1	03/28/2017 18:41	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 18:41	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 18:41	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 18:41	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 18:41	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 18:41	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 18:41	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 18:41	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 18:41	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 18:41	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 18:41	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 18:41	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 18:41	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 18:41	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 18:41	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 18:41	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 18:41	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 18:41	WG964788
Vinyl chloride	6.94		0.118	0.500	1	03/28/2017 18:41	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 18:41	WG964788
(S) Toluene-d8	99.3			80.0-120		03/28/2017 18:41	WG964788
(S) Dibromofluoromethane	97.4			76.0-123		03/28/2017 18:41	WG964788
(S) 4-Bromofluorobenzene	100			80.0-120		03/28/2017 18:41	WG964788

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

*See 4/26/17*





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	166000		2710	20000	1	03/28/2017 16:56	WG964734

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	6120		51.9	1000	1	03/25/2017 17:15	WG964255
Nitrate	U		22.7	100	1	03/25/2017 17:15	WG964255
Sulfate	738	J J	77.4	5000	1	03/25/2017 17:15	WG964255

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	2180		102	1000	1	03/28/2017 20:05	WG964476

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	598		15.0	100	1	04/01/2017 14:52	WG966184
Manganese	1030		0.250	5.00	1	04/01/2017 14:52	WG966184

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	159		0.287	0.678	1	04/02/2017 08:52	WG966467
Ethane	1.19	J J	0.296	1.29	1	04/02/2017 08:52	WG966467
Ethene	U		0.422	1.27	1	04/02/2017 08:52	WG966467

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	2.31	J J J0	1.05	25.0	1	03/28/2017 19:01	WG964788
Acrylonitrile	U	J3	0.873	2.50	1	03/28/2017 19:01	WG964788
Benzene	U		0.0896	0.500	1	03/28/2017 19:01	WG964788
Bromobenzene	U		0.133	0.500	1	03/28/2017 19:01	WG964788
Bromodichloromethane	U		0.0800	0.500	1	03/28/2017 19:01	WG964788
Bromochloromethane	U		0.145	0.500	1	03/28/2017 19:01	WG964788
Bromoform	U		0.186	0.500	1	03/28/2017 19:01	WG964788
Bromomethane	U		0.157	0.500	1	03/28/2017 19:01	WG964788
n-Butylbenzene	U		0.143	0.500	1	03/28/2017 19:01	WG964788
sec-Butylbenzene	U		0.134	0.500	1	03/28/2017 19:01	WG964788
tert-Butylbenzene	U		0.183	0.500	1	03/28/2017 19:01	WG964788
Carbon disulfide	U		0.101	0.500	1	03/28/2017 19:01	WG964788
Carbon tetrachloride	U		0.159	0.500	1	03/28/2017 19:01	WG964788
Chlorobenzene	U		0.140	0.500	1	03/28/2017 19:01	WG964788
Chlorodibromomethane	U		0.128	0.500	1	03/28/2017 19:01	WG964788
Chloroethane	U		0.141	0.500	1	03/28/2017 19:01	WG964788
2-Chloroethyl vinyl ether	U		0.877	2.50	1	03/28/2017 19:01	WG964788
Chloroform	U		0.0860	0.500	1	03/28/2017 19:01	WG964788
Chloromethane	U		0.153	0.500	1	03/28/2017 19:01	WG964788
2-Chlorotoluene	U		0.111	0.500	1	03/28/2017 19:01	WG964788
4-Chlorotoluene	U		0.0972	0.500	1	03/28/2017 19:01	WG964788
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/28/2017 19:01	WG964788
1,2-Dibromoethane	U		0.193	0.500	1	03/28/2017 19:01	WG964788

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Collected date/time: 03/24/17 12:35

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/28/2017 19:01	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/28/2017 19:01	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/28/2017 19:01	WG964788
cis-1,2-Dichloroethene	45.6		0.0933	0.500	1	03/28/2017 19:01	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/28/2017 19:01	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/28/2017 19:01	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/28/2017 19:01	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/28/2017 19:01	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/28/2017 19:01	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/28/2017 19:01	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/28/2017 19:01	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/28/2017 19:01	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/28/2017 19:01	WG964788
Ethylbenzene	U		0.158	0.500	1	03/28/2017 19:01	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/28/2017 19:01	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/28/2017 19:01	WG964788
n-Hexane	U		0.305	1.00	1	03/28/2017 19:01	WG964788
Iodomethane	U		0.377	2.50	1	03/28/2017 19:01	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/28/2017 19:01	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/28/2017 19:01	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/28/2017 19:01	WG964788
Methylene Chloride	U		1.07	2.50	1	03/28/2017 19:01	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/28/2017 19:01	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/28/2017 19:01	WG964788
Naphthalene	0.273	U B J	0.174	0.500	1	03/28/2017 19:01	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/28/2017 19:01	WG964788
Styrene	U		0.117	0.500	1	03/28/2017 19:01	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/28/2017 19:01	WG964788
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/28/2017 19:01	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/28/2017 19:01	WG964788
Toluene	U		0.412	1.00	1	03/28/2017 19:01	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/28/2017 19:01	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/28/2017 19:01	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/28/2017 19:01	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/28/2017 19:01	WG964788
Trichloroethene	U		0.153	0.500	1	03/28/2017 19:01	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/28/2017 19:01	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/28/2017 19:01	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/28/2017 19:01	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/28/2017 19:01	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/28/2017 19:01	WG964788
Vinyl acetate	U		0.645	2.50	1	03/28/2017 19:01	WG964788
Vinyl chloride	0.249	J J	0.118	0.500	1	03/28/2017 19:01	WG964788
Xylenes, Total	U		0.316	1.50	1	03/28/2017 19:01	WG964788
(S) Toluene-d8	98.5			80.0-120		03/28/2017 19:01	WG964788
(S) Dibromofluoromethane	96.7			76.0-123		03/28/2017 19:01	WG964788
(S) 4-Bromofluorobenzene	99.8			80.0-120		03/28/2017 19:01	WG964788

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

*Handwritten signature/initials: JG 4/26/17*





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.89	J	1.05	25.0	1	03/29/2017 18:55	WG964788
Acrylonitrile	U	J3	0.873	2.50	1	03/29/2017 18:55	WG964788
Benzene	U		0.0896	0.500	1	03/29/2017 18:55	WG964788
Bromobenzene	U		0.133	0.500	1	03/29/2017 18:55	WG964788
Bromodichloromethane	U		0.0800	0.500	1	03/29/2017 18:55	WG964788
Bromochloromethane	U		0.145	0.500	1	03/29/2017 18:55	WG964788
Bromoform	U		0.186	0.500	1	03/29/2017 18:55	WG964788
Bromomethane	U		0.157	0.500	1	03/29/2017 18:55	WG964788
n-Butylbenzene	U		0.143	0.500	1	03/29/2017 18:55	WG964788
sec-Butylbenzene	U		0.134	0.500	1	03/29/2017 18:55	WG964788
tert-Butylbenzene	U		0.183	0.500	1	03/29/2017 18:55	WG964788
Carbon disulfide	U		0.101	0.500	1	03/29/2017 18:55	WG964788
Carbon tetrachloride	U		0.159	0.500	1	03/29/2017 18:55	WG964788
Chlorobenzene	U		0.140	0.500	1	03/29/2017 18:55	WG964788
Chlorodibromomethane	U		0.128	0.500	1	03/29/2017 18:55	WG964788
Chloroethane	U		0.141	0.500	1	03/29/2017 18:55	WG964788
2-Chloroethyl vinyl ether	U	R J6	0.877	2.50	1	03/29/2017 18:55	WG964788
Chloroform	U		0.0860	0.500	1	03/29/2017 18:55	WG964788
Chloromethane	U		0.153	0.500	1	03/29/2017 18:55	WG964788
2-Chlorotoluene	U		0.111	0.500	1	03/29/2017 18:55	WG964788
4-Chlorotoluene	U		0.0972	0.500	1	03/29/2017 18:55	WG964788
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	03/29/2017 18:55	WG964788
1,2-Dibromoethane	U		0.193	0.500	1	03/29/2017 18:55	WG964788
Dibromomethane	U		0.117	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichlorobenzene	U		0.101	0.500	1	03/29/2017 18:55	WG964788
1,3-Dichlorobenzene	U		0.130	0.500	1	03/29/2017 18:55	WG964788
1,4-Dichlorobenzene	U		0.121	0.500	1	03/29/2017 18:55	WG964788
Dichlorodifluoromethane	U		0.127	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloroethane	U		0.114	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichloroethane	U		0.108	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloroethene	U		0.188	0.500	1	03/29/2017 18:55	WG964788
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/29/2017 18:55	WG964788
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/29/2017 18:55	WG964788
1,2-Dichloropropane	U		0.190	0.500	1	03/29/2017 18:55	WG964788
1,1-Dichloropropene	U		0.128	0.500	1	03/29/2017 18:55	WG964788
1,3-Dichloropropane	U		0.147	0.500	1	03/29/2017 18:55	WG964788
cis-1,3-Dichloropropene	U		0.0976	0.500	1	03/29/2017 18:55	WG964788
trans-1,3-Dichloropropene	U		0.222	0.500	1	03/29/2017 18:55	WG964788
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	03/29/2017 18:55	WG964788
2,2-Dichloropropane	U		0.0929	0.500	1	03/29/2017 18:55	WG964788
Di-isopropyl ether	U		0.0924	0.500	1	03/29/2017 18:55	WG964788
Ethylbenzene	U		0.158	0.500	1	03/29/2017 18:55	WG964788
Hexachloro-1,3-butadiene	U		0.157	1.00	1	03/29/2017 18:55	WG964788
2-Hexanone	U	J3	0.757	2.50	1	03/29/2017 18:55	WG964788
n-Hexane	U		0.305	1.00	1	03/29/2017 18:55	WG964788
Iodomethane	U		0.377	2.50	1	03/29/2017 18:55	WG964788
Isopropylbenzene	U		0.126	0.500	1	03/29/2017 18:55	WG964788
p-Isopropyltoluene	U		0.138	0.500	1	03/29/2017 18:55	WG964788
2-Butanone (MEK)	U	J3	1.28	2.50	1	03/29/2017 18:55	WG964788
Methylene Chloride	U		1.07	2.50	1	03/29/2017 18:55	WG964788
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	03/29/2017 18:55	WG964788
Methyl tert-butyl ether	U		0.102	0.500	1	03/29/2017 18:55	WG964788
Naphthalene	U		0.174	0.500	1	03/29/2017 18:55	WG964788
n-Propylbenzene	U		0.162	0.500	1	03/29/2017 18:55	WG964788
Styrene	U		0.117	0.500	1	03/29/2017 18:55	WG964788
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	03/29/2017 18:55	WG964788

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

*Handwritten signature and date: Jc 4/26/17*



Collected date/time: 03/24/17 13:50

L898272

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	03/29/2017 18:55	WG964788
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	03/29/2017 18:55	WG964788
Tetrachloroethene	U		0.199	0.500	1	03/29/2017 18:55	WG964788
Toluene	U		0.412	1.00	1	03/29/2017 18:55	WG964788
1,2,3-Trichlorobenzene	U		0.164	0.500	1	03/29/2017 18:55	WG964788
1,2,4-Trichlorobenzene	U		0.355	0.500	1	03/29/2017 18:55	WG964788
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/29/2017 18:55	WG964788
1,1,2-Trichloroethane	U		0.186	0.500	1	03/29/2017 18:55	WG964788
Trichloroethene	U		0.153	0.500	1	03/29/2017 18:55	WG964788
Trichlorofluoromethane	U		0.130	0.500	1	03/29/2017 18:55	WG964788
1,2,3-Trichloropropane	U		0.247	2.50	1	03/29/2017 18:55	WG964788
1,2,4-Trimethylbenzene	U		0.123	0.500	1	03/29/2017 18:55	WG964788
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	03/29/2017 18:55	WG964788
1,3,5-Trimethylbenzene	U		0.124	0.500	1	03/29/2017 18:55	WG964788
Vinyl acetate	U		0.645	2.50	1	03/29/2017 18:55	WG964788
Vinyl chloride	U		0.118	0.500	1	03/29/2017 18:55	WG964788
Xylenes, Total	U		0.316	1.50	1	03/29/2017 18:55	WG964788
(S) Toluene-d8	110			80.0-120		03/29/2017 18:55	WG964788
(S) Dibromofluoromethane	101			76.0-123		03/29/2017 18:55	WG964788
(S) 4-Bromofluorobenzene	103			80.0-120		03/29/2017 18:55	WG964788

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

*Handwritten signature and date: 4/26/17*



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L898516  
Samples Received: 03/28/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



## F13-032717 L898516-01 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 09:10  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964734	1	03/28/17 17:09	03/28/17 17:09	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 15:43	03/28/17 15:43	SAM
Wet Chemistry by Method 9060A	WG965719	1	03/31/17 23:51	03/31/17 23:51	CSU
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:08	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966448	1	04/03/17 21:28	04/03/17 21:28	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG966467	1	04/02/17 12:11	04/02/17 12:11	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 11:50	04/04/17 11:50	ACG

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## F9-032717 L898516-02 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 11:15  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966448	1	04/04/17 00:08	04/04/17 00:08	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 12:10	04/04/17 12:10	ACG

## M15-032717 L898516-03 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 09:30  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964734	1	03/28/17 17:16	03/28/17 17:16	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 16:44	03/28/17 16:44	SAM
Wet Chemistry by Method 9060A	WG965719	1	04/01/17 00:06	04/01/17 00:06	CSU
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:11	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966467	1	04/02/17 12:28	04/02/17 12:28	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966662	20	04/03/17 10:24	04/03/17 10:24	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 12:31	04/04/17 12:31	ACG

## M15-D-032717 L898516-04 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 09:40  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964934	1	03/29/17 07:53	03/29/17 07:53	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 17:15	03/28/17 17:15	SAM
Wet Chemistry by Method 9060A	WG965719	1	04/01/17 00:20	04/01/17 00:20	CSU
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:25	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966468	1	04/02/17 15:17	04/02/17 15:17	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966793	40	04/03/17 16:55	04/03/17 16:55	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 12:51	04/04/17 12:51	ACG

## G12-032717 L898516-05 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 10:25  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 13:11	04/04/17 13:11	ACG

# SAMPLE SUMMARY



## J15-032717 L898516-06 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 11:35  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964934	1	03/29/17 08:09	03/29/17 08:09	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 17:46	03/28/17 17:46	SAM
Wet Chemistry by Method 9060A	WG965719	1	04/01/17 00:37	04/01/17 00:37	CSU
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:28	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966468	1	04/02/17 15:34	04/02/17 15:34	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966793	20	04/03/17 17:12	04/03/17 17:12	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/05/17 17:50	04/05/17 17:50	LRL

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

## W-MW-02-032717 L898516-07 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 13:50  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964934	1	03/29/17 08:16	03/29/17 08:16	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 18:17	03/28/17 18:17	SAM
Wet Chemistry by Method 9056A	WG964797	50	03/28/17 18:32	03/28/17 18:32	SAM
Wet Chemistry by Method 9060A	WG966368	5	04/03/17 13:47	04/03/17 13:47	SJM
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:32	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966468	1	04/02/17 15:50	04/02/17 15:50	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966793	40	04/03/17 20:15	04/03/17 20:15	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 13:52	04/04/17 13:52	ACG

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW-131-032717 L898516-08 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 13:50  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964934	1	03/29/17 08:23	03/29/17 08:23	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 18:48	03/28/17 18:48	SAM
Wet Chemistry by Method 9056A	WG964797	50	03/28/17 19:34	03/28/17 19:34	SAM
Wet Chemistry by Method 9060A	WG966368	1	04/03/17 14:03	04/03/17 14:03	SJM
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:35	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966448	1	04/04/17 00:32	04/04/17 00:32	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG966468	1	04/02/17 16:07	04/02/17 16:07	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966793	50	04/03/17 17:29	04/03/17 17:29	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 14:12	04/04/17 14:12	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	20	04/05/17 18:10	04/05/17 18:10	LRL

## MW107-032717 L898516-09 GW

Collected by  
CD, SM  
Collected date/time  
03/27/17 15:10  
Received date/time  
03/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG964934	1	03/29/17 08:30	03/29/17 08:30	AMC
Wet Chemistry by Method 9056A	WG964797	1	03/28/17 19:49	03/28/17 19:49	SAM
Wet Chemistry by Method 9056A	WG964797	50	03/28/17 20:05	03/28/17 20:05	SAM
Wet Chemistry by Method 9060A	WG966368	5	04/03/17 22:52	04/03/17 22:52	SJM
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 13:39	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966468	1	04/02/17 16:23	04/02/17 16:23	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG966793	40	04/03/17 17:45	04/03/17 17:45	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/04/17 14:32	04/04/17 14:32	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966242	1	04/05/17 18:31	04/05/17 18:31	LRL



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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	266000		2710	20000	1	03/28/2017 17:09	<a href="#">WG964734</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8850		51.9	1000	1	03/28/2017 15:43	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 15:43	<a href="#">WG964797</a>
Sulfate	68300		77.4	5000	1	03/28/2017 15:43	<a href="#">WG964797</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10000		102	1000	1	03/31/2017 23:51	<a href="#">WG965719</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	24200		15.0	100	1	04/04/2017 13:08	<a href="#">WG965287</a>
Manganese	651		0.250	5.00	1	04/04/2017 13:08	<a href="#">WG965287</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/03/2017 21:28	<a href="#">WG966448</a>
(S) a,a,a-Trifluorotoluene(FID) 104				77.0-122		04/03/2017 21:28	<a href="#">WG966448</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	510		0.287	0.678	1	04/02/2017 12:11	<a href="#">WG966467</a>
Ethane	U		0.296	1.29	1	04/02/2017 12:11	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 12:11	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.42	J	1.05	25.0	1	04/04/2017 11:50	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 11:50	<a href="#">WG966242</a>
Benzene	U		0.0896	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>
Chloroethane	U		0.141	0.500	1	04/04/2017 11:50	<a href="#">WG966242</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	04/04/2017 11:50	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 11:50	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 11:50	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 11:50	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 11:50	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 11:50	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 11:50	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 11:50	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 11:50	WG966242
cis-1,2-Dichloroethene	0.218	J	0.0933	0.500	1	04/04/2017 11:50	WG966242
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 11:50	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 11:50	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 11:50	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 11:50	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 11:50	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 11:50	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 11:50	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 11:50	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 11:50	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 11:50	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 11:50	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 11:50	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 11:50	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 11:50	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 11:50	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 11:50	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 11:50	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 11:50	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 11:50	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 11:50	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 11:50	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 11:50	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 11:50	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 11:50	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 11:50	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 11:50	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 11:50	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 11:50	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 11:50	WG966242
Trichloroethene	U		0.153	0.500	1	04/04/2017 11:50	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 11:50	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 11:50	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 11:50	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 11:50	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 11:50	WG966242
Vinyl chloride	0.936		0.118	0.500	1	04/04/2017 11:50	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 11:50	WG966242

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





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	96.1			80.0-120		04/04/2017 11:50	<a href="#">WG966242</a>
(S) Dibromofluoromethane	91.2			76.0-123		04/04/2017 11:50	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	97.1			80.0-120		04/04/2017 11:50	<a href="#">WG966242</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



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/04/2017 00:08	WG966448
(S) a,a,a-Trifluorotoluene(FID) 104				77.0-122		04/04/2017 00:08	WG966448

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.40	J	1.05	25.0	1	04/04/2017 12:10	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:10	WG966242
Benzene	0.529		0.0896	0.500	1	04/04/2017 12:10	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:10	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:10	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:10	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 12:10	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 12:10	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:10	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:10	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:10	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:10	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:10	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:10	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:10	WG966242
Chloroethane	U		0.141	0.500	1	04/04/2017 12:10	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 12:10	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 12:10	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:10	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:10	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:10	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:10	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:10	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:10	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:10	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 12:10	WG966242
cis-1,2-Dichloroethene	0.158	J	0.0933	0.500	1	04/04/2017 12:10	WG966242
trans-1,2-Dichloroethene	0.539		0.152	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:10	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:10	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:10	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:10	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:10	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:10	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:10	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:10	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:10	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:10	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 12:10	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 12:10	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:10	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:10	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:10	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:10	WG966242

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U	<u>J3</u>	0.823	2.50	1	04/04/2017 12:10	<a href="#">WG966242</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Naphthalene	0.195	<u>BJ</u>	0.174	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Styrene	U		0.117	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Toluene	2.04		0.412	1.00	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Trichloroethene	U		0.153	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:10	<a href="#">WG966242</a>
Vinyl chloride	U		0.118	0.500	1	04/04/2017 12:10	<a href="#">WG966242</a>
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:10	<a href="#">WG966242</a>
(S) Toluene-d8	95.7			80.0-120		04/04/2017 12:10	<a href="#">WG966242</a>
(S) Dibromofluoromethane	93.0			76.0-123		04/04/2017 12:10	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	96.6			80.0-120		04/04/2017 12:10	<a href="#">WG966242</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	830000		2710	20000	1	03/28/2017 17:16	<a href="#">WG964734</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11600		51.9	1000	1	03/28/2017 16:44	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 16:44	<a href="#">WG964797</a>
Sulfate	40400		77.4	5000	1	03/28/2017 16:44	<a href="#">WG964797</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11400		102	1000	1	04/01/2017 00:06	<a href="#">WG965719</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3760		15.0	100	1	04/04/2017 13:11	<a href="#">WG965287</a>
Manganese	6070		0.250	5.00	1	04/04/2017 13:11	<a href="#">WG965287</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	11500		5.74	13.6	20	04/03/2017 10:24	<a href="#">WG966662</a>
Ethane	U		0.296	1.29	1	04/02/2017 12:28	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 12:28	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.45	J	1.05	25.0	1	04/04/2017 12:31	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:31	<a href="#">WG966242</a>
Benzene	U		0.0896	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloroethane	U		0.141	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:31	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/27/17 09:30

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:31	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:31	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:31	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:31	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:31	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:31	WG966242
1,1-Dichloroethene	0.631		0.188	0.500	1	04/04/2017 12:31	WG966242
cis-1,2-Dichloroethene	32.7		0.0933	0.500	1	04/04/2017 12:31	WG966242
trans-1,2-Dichloroethene	0.561		0.152	0.500	1	04/04/2017 12:31	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:31	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:31	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:31	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:31	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:31	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:31	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:31	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:31	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:31	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:31	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:31	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 12:31	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 12:31	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:31	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:31	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:31	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:31	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 12:31	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:31	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 12:31	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:31	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 12:31	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:31	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:31	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:31	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:31	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 12:31	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:31	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:31	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:31	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:31	WG966242
Trichloroethene	0.733		0.153	0.500	1	04/04/2017 12:31	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:31	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:31	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:31	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:31	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:31	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:31	WG966242
Vinyl chloride	13.2		0.118	0.500	1	04/04/2017 12:31	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:31	WG966242
(S) Toluene-d8	96.3			80.0-120		04/04/2017 12:31	WG966242
(S) Dibromofluoromethane	94.8			76.0-123		04/04/2017 12:31	WG966242
(S) 4-Bromofluorobenzene	96.5			80.0-120		04/04/2017 12:31	WG966242

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	817000		2710	20000	1	03/29/2017 07:53	<a href="#">WG964934</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11600		51.9	1000	1	03/28/2017 17:15	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 17:15	<a href="#">WG964797</a>
Sulfate	40400		77.4	5000	1	03/28/2017 17:15	<a href="#">WG964797</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11700		102	1000	1	04/01/2017 00:20	<a href="#">WG965719</a>

## Metals (ICPMS) by Method 6020

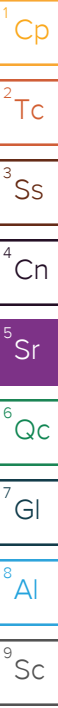
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3770		15.0	100	1	04/04/2017 13:25	<a href="#">WG965287</a>
Manganese	6170		0.250	5.00	1	04/04/2017 13:25	<a href="#">WG965287</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	10400		11.5	27.1	40	04/03/2017 16:55	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 15:17	<a href="#">WG966468</a>
Ethene	U		0.422	1.27	1	04/02/2017 15:17	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.79	J	1.05	25.0	1	04/04/2017 12:51	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:51	<a href="#">WG966242</a>
Benzene	U		0.0896	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Chloroethane	0.196	J	0.141	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:51	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:51	<a href="#">WG966242</a>





Collected date/time: 03/27/17 09:40

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:51	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:51	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:51	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloroethene	0.588		0.188	0.500	1	04/04/2017 12:51	WG966242
cis-1,2-Dichloroethene	31.7		0.0933	0.500	1	04/04/2017 12:51	WG966242
trans-1,2-Dichloroethene	0.513		0.152	0.500	1	04/04/2017 12:51	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:51	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:51	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:51	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:51	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:51	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:51	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:51	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:51	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:51	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:51	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 12:51	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 12:51	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:51	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:51	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:51	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:51	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 12:51	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:51	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 12:51	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:51	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 12:51	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:51	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:51	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:51	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 12:51	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:51	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:51	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:51	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:51	WG966242
Trichloroethene	0.670		0.153	0.500	1	04/04/2017 12:51	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:51	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:51	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:51	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:51	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:51	WG966242
Vinyl chloride	12.0		0.118	0.500	1	04/04/2017 12:51	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:51	WG966242
(S) Toluene-d8	96.3			80.0-120		04/04/2017 12:51	WG966242
(S) Dibromofluoromethane	92.7			76.0-123		04/04/2017 12:51	WG966242
(S) 4-Bromofluorobenzene	97.6			80.0-120		04/04/2017 12:51	WG966242

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.71	J	1.05	25.0	1	04/04/2017 13:11	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 13:11	WG966242
Benzene	0.243	J	0.0896	0.500	1	04/04/2017 13:11	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 13:11	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 13:11	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 13:11	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 13:11	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 13:11	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 13:11	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 13:11	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 13:11	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 13:11	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 13:11	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 13:11	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 13:11	WG966242
Chloroethane	0.344	J	0.141	0.500	1	04/04/2017 13:11	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 13:11	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 13:11	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 13:11	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 13:11	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 13:11	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 13:11	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 13:11	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 13:11	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 13:11	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloroethene	1.55		0.188	0.500	1	04/04/2017 13:11	WG966242
cis-1,2-Dichloroethene	95.9		0.0933	0.500	1	04/04/2017 13:11	WG966242
trans-1,2-Dichloroethene	1.97		0.152	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 13:11	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 13:11	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 13:11	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 13:11	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 13:11	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 13:11	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 13:11	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 13:11	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 13:11	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 13:11	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 13:11	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 13:11	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 13:11	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 13:11	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 13:11	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 13:11	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 13:11	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 13:11	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 13:11	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 13:11	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 13:11	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 13:11	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 13:11	WG966242

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/27/17 10:25

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	1 Cp
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	2 Tc
Toluene	U		0.412	1.00	1	04/04/2017 13:11	<a href="#">WG966242</a>	3 Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	4 Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	5 Sr
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	6 Qc
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	7 Gl
Trichloroethene	0.233	J	0.153	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	8 Al
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	9 Sc
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 13:11	<a href="#">WG966242</a>	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	
Vinyl acetate	U		0.645	2.50	1	04/04/2017 13:11	<a href="#">WG966242</a>	
Vinyl chloride	28.4		0.118	0.500	1	04/04/2017 13:11	<a href="#">WG966242</a>	
Xylenes, Total	U		0.316	1.50	1	04/04/2017 13:11	<a href="#">WG966242</a>	
(S) Toluene-d8	96.0			80.0-120		04/04/2017 13:11	<a href="#">WG966242</a>	
(S) Dibromofluoromethane	95.0			76.0-123		04/04/2017 13:11	<a href="#">WG966242</a>	
(S) 4-Bromofluorobenzene	97.5			80.0-120		04/04/2017 13:11	<a href="#">WG966242</a>	



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	476000		2710	20000	1	03/29/2017 08:09	<a href="#">WG964934</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	24200		51.9	1000	1	03/28/2017 17:46	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 17:46	<a href="#">WG964797</a>
Sulfate	55800		77.4	5000	1	03/28/2017 17:46	<a href="#">WG964797</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	20000		102	1000	1	04/01/2017 00:37	<a href="#">WG965719</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5520		15.0	100	1	04/04/2017 13:28	<a href="#">WG965287</a>
Manganese	3340		0.250	5.00	1	04/04/2017 13:28	<a href="#">WG965287</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	3100		5.74	13.6	20	04/03/2017 17:12	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 15:34	<a href="#">WG966468</a>
Ethene	U		0.422	1.27	1	04/02/2017 15:34	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.82	J	1.05	25.0	1	04/05/2017 17:50	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 17:50	<a href="#">WG966242</a>
Benzene	0.188	J	0.0896	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/05/2017 17:50	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/05/2017 17:50	<a href="#">WG966242</a>





Collected date/time: 03/27/17 11:35

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 17:50	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 17:50	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 17:50	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloroethene	1.78		0.188	0.500	1	04/05/2017 17:50	WG966242
cis-1,2-Dichloroethene	46.3		0.0933	0.500	1	04/05/2017 17:50	WG966242
trans-1,2-Dichloroethene	1.18		0.152	0.500	1	04/05/2017 17:50	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 17:50	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 17:50	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 17:50	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 17:50	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/05/2017 17:50	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 17:50	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 17:50	WG966242
Ethylbenzene	U		0.158	0.500	1	04/05/2017 17:50	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 17:50	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/05/2017 17:50	WG966242
n-Hexane	U		0.305	1.00	1	04/05/2017 17:50	WG966242
Iodomethane	U		0.377	2.50	1	04/05/2017 17:50	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 17:50	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 17:50	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/05/2017 17:50	WG966242
Methylene Chloride	U		1.07	2.50	1	04/05/2017 17:50	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/05/2017 17:50	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 17:50	WG966242
Naphthalene	U		0.174	0.500	1	04/05/2017 17:50	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 17:50	WG966242
Styrene	U		0.117	0.500	1	04/05/2017 17:50	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 17:50	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 17:50	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 17:50	WG966242
Toluene	0.495	J	0.412	1.00	1	04/05/2017 17:50	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 17:50	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 17:50	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 17:50	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 17:50	WG966242
Trichloroethene	U		0.153	0.500	1	04/05/2017 17:50	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 17:50	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 17:50	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 17:50	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 17:50	WG966242
Vinyl acetate	U		0.645	2.50	1	04/05/2017 17:50	WG966242
Vinyl chloride	6.99		0.118	0.500	1	04/05/2017 17:50	WG966242
Xylenes, Total	U		0.316	1.50	1	04/05/2017 17:50	WG966242
(S) Toluene-d8	101			80.0-120		04/05/2017 17:50	WG966242
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 17:50	WG966242
(S) 4-Bromofluorobenzene	91.3			80.0-120		04/05/2017 17:50	WG966242

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	455000		2710	20000	1	03/29/2017 08:16	<a href="#">WG964934</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	142000		2600	50000	50	03/28/2017 18:32	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 18:17	<a href="#">WG964797</a>
Sulfate	U		77.4	5000	1	03/28/2017 18:17	<a href="#">WG964797</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	204000		510	5000	5	04/03/2017 13:47	<a href="#">WG966368</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	47500		15.0	100	1	04/04/2017 13:32	<a href="#">WG965287</a>
Manganese	4120		0.250	5.00	1	04/04/2017 13:32	<a href="#">WG965287</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	6740		11.5	27.1	40	04/03/2017 20:15	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 15:50	<a href="#">WG966468</a>
Ethene	8.32		0.422	1.27	1	04/02/2017 15:50	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	19.3	J	1.05	25.0	1	04/04/2017 13:52	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 13:52	<a href="#">WG966242</a>
Benzene	0.270	J	0.0896	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloroethane	0.204	J	0.141	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 13:52	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/27/17 13:50

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 13:52	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 13:52	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 13:52	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 13:52	WG966242
cis-1,2-Dichloroethene	33.0		0.0933	0.500	1	04/04/2017 13:52	WG966242
trans-1,2-Dichloroethene	2.16		0.152	0.500	1	04/04/2017 13:52	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 13:52	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 13:52	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 13:52	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 13:52	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 13:52	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 13:52	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 13:52	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 13:52	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 13:52	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 13:52	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 13:52	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 13:52	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 13:52	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 13:52	WG966242
2-Butanone (MEK)	13.8	J3	1.28	2.50	1	04/04/2017 13:52	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 13:52	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 13:52	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 13:52	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 13:52	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 13:52	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 13:52	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 13:52	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 13:52	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 13:52	WG966242
Toluene	0.961	J	0.412	1.00	1	04/04/2017 13:52	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 13:52	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 13:52	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 13:52	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 13:52	WG966242
Trichloroethene	0.259	J	0.153	0.500	1	04/04/2017 13:52	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 13:52	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 13:52	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 13:52	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 13:52	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 13:52	WG966242
Vinyl chloride	36.4		0.118	0.500	1	04/04/2017 13:52	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 13:52	WG966242
(S) Toluene-d8	96.4			80.0-120		04/04/2017 13:52	WG966242
(S) Dibromofluoromethane	97.1			76.0-123		04/04/2017 13:52	WG966242
(S) 4-Bromofluorobenzene	96.8			80.0-120		04/04/2017 13:52	WG966242

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	911000		2710	20000	1	03/29/2017 08:23	<a href="#">WG964934</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	141000		2600	50000	50	03/28/2017 19:34	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 18:48	<a href="#">WG964797</a>
Sulfate	U		77.4	5000	1	03/28/2017 18:48	<a href="#">WG964797</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8930		102	1000	1	04/03/2017 14:03	<a href="#">WG966368</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	7980		15.0	100	1	04/04/2017 13:35	<a href="#">WG965287</a>
Manganese	1060		0.250	5.00	1	04/04/2017 13:35	<a href="#">WG965287</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	91.9	J	31.6	100	1	04/04/2017 00:32	<a href="#">WG966448</a>
(S) a,a,a-Trifluorotoluene(FID) 104				77.0-122		04/04/2017 00:32	<a href="#">WG966448</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	16200		14.4	33.9	50	04/03/2017 17:29	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 16:07	<a href="#">WG966468</a>
Ethene	280		0.422	1.27	1	04/02/2017 16:07	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.93	J	1.05	25.0	1	04/04/2017 14:12	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 14:12	<a href="#">WG966242</a>
Benzene	0.199	J	0.0896	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chloroethane	0.462	J	0.141	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>



Collected date/time: 03/27/17 13:50

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	04/04/2017 14:12	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 14:12	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 14:12	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 14:12	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 14:12	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 14:12	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 14:12	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 14:12	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 14:12	WG966242
cis-1,2-Dichloroethene	243		1.87	10.0	20	04/05/2017 18:10	WG966242
trans-1,2-Dichloroethene	0.981		0.152	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 14:12	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 14:12	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 14:12	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 14:12	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 14:12	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 14:12	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 14:12	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 14:12	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 14:12	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 14:12	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 14:12	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 14:12	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 14:12	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 14:12	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 14:12	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 14:12	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 14:12	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 14:12	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 14:12	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 14:12	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 14:12	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 14:12	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 14:12	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 14:12	WG966242
Toluene	0.462	J	0.412	1.00	1	04/04/2017 14:12	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 14:12	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 14:12	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 14:12	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 14:12	WG966242
Trichloroethene	U		0.153	0.500	1	04/04/2017 14:12	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 14:12	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 14:12	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 14:12	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 14:12	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 14:12	WG966242
Vinyl chloride	804		2.36	10.0	20	04/05/2017 18:10	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 14:12	WG966242

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	98.2			80.0-120		04/04/2017 14:12	<a href="#">WG966242</a>
(S) Toluene-d8	101			80.0-120		04/05/2017 18:10	<a href="#">WG966242</a>
(S) Dibromofluoromethane	91.0			76.0-123		04/04/2017 14:12	<a href="#">WG966242</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:10	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	91.2			80.0-120		04/05/2017 18:10	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	98.5			80.0-120		04/04/2017 14:12	<a href="#">WG966242</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	559000		2710	20000	1	03/29/2017 08:30	<a href="#">WG964934</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	122000		2600	50000	50	03/28/2017 20:05	<a href="#">WG964797</a>
Nitrate	26.2	J	22.7	100	1	03/28/2017 19:49	<a href="#">WG964797</a>
Sulfate	U		77.4	5000	1	03/28/2017 19:49	<a href="#">WG964797</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	147000		510	5000	5	04/03/2017 22:52	<a href="#">WG966368</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	17600		15.0	100	1	04/04/2017 13:39	<a href="#">WG965287</a>
Manganese	1120		0.250	5.00	1	04/04/2017 13:39	<a href="#">WG965287</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	8380		11.5	27.1	40	04/03/2017 17:45	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 16:23	<a href="#">WG966468</a>
Ethene	159		0.422	1.27	1	04/02/2017 16:23	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	11.0	J	1.05	25.0	1	04/04/2017 14:32	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 14:32	<a href="#">WG966242</a>
Benzene	0.204	J	0.0896	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Chloroethane	0.406	J	0.141	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 14:32	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 14:32	<a href="#">WG966242</a>



Collected date/time: 03/27/17 15:10

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 14:32	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 14:32	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 14:32	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 14:32	WG966242
cis-1,2-Dichloroethene	6.82		0.0933	0.500	1	04/05/2017 18:31	WG966242
trans-1,2-Dichloroethene	14.0		0.152	0.500	1	04/04/2017 14:32	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 14:32	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 14:32	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 14:32	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 14:32	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 14:32	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 14:32	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 14:32	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 14:32	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 14:32	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 14:32	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 14:32	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 14:32	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 14:32	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 14:32	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 14:32	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 14:32	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 14:32	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 14:32	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 14:32	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 14:32	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 14:32	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 14:32	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 14:32	WG966242
Tetrachloroethene	0.224	LJ	0.199	0.500	1	04/04/2017 14:32	WG966242
Toluene	0.690	LJ	0.412	1.00	1	04/04/2017 14:32	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 14:32	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 14:32	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 14:32	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 14:32	WG966242
Trichloroethene	0.370	LJ	0.153	0.500	1	04/04/2017 14:32	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 14:32	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 14:32	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 14:32	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 14:32	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 14:32	WG966242
Vinyl chloride	34.5		0.118	0.500	1	04/04/2017 14:32	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 14:32	WG966242
(S) Toluene-d8	96.9			80.0-120		04/04/2017 14:32	WG966242
(S) Toluene-d8	102			80.0-120		04/05/2017 18:31	WG966242
(S) Dibromofluoromethane	92.8			76.0-123		04/04/2017 14:32	WG966242
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:31	WG966242
(S) 4-Bromofluorobenzene	93.6			80.0-120		04/05/2017 18:31	WG966242
(S) 4-Bromofluorobenzene	96.1			80.0-120		04/04/2017 14:32	WG966242

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3206451-2 03/28/17 13:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity	3680	J	2710	20000

1 Cp

2 Tc

3 Ss

L898272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898272-03 03/28/17 16:56 • (DUP) R3206451-7 03/28/17 17:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	166000	162000	1	3.00		20

4 Cn

5 Sr

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

(LCS) R3206451-5 03/28/17 14:43 • (LCSD) R3206451-6 03/28/17 16:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Alkalinity	100000	102000	92500	102	93.0	85.0-115			10.0	20

6 Qc

7 Gl

8 Al

9 Sc



[L898516-04,06,07,08,09](#)

Method Blank (MB)

(MB) R3206758-1 03/29/17 07:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

<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

L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 03/29/17 07:53 • (DUP) R3206758-3 03/29/17 08:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	817000	833000	1	2.00		20

L898583-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898583-04 03/29/17 10:36 • (DUP) R3206758-6 03/29/17 10:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	298000	296000	1	1.00		20

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

(LCS) R3206758-4 03/29/17 08:51 • (LCSD) R3206758-5 03/29/17 10:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	89600	95300	90.0	95.0	85.0-115			6.00	20





Method Blank (MB)

(MB) R3206584-1 03/28/17 07:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

<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

L898514-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898514-01 03/28/17 11:50 • (DUP) R3206584-4 03/28/17 12:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	1760	1760	1	0		15

L898516-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-06 03/28/17 17:46 • (DUP) R3206584-6 03/28/17 18:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	24200	24200	1	0		15
Nitrate	U	0.000	1	0		15
Sulfate	55800	55900	1	0		15

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

(LCS) R3206584-2 03/28/17 07:16 • (LCSD) R3206584-3 03/28/17 07:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39400	39400	98	99	80-120			0	15
Nitrate	8000	8050	8060	101	101	80-120			0	15
Sulfate	40000	40300	40200	101	101	80-120			0	15

L898514-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L898514-02 03/28/17 12:20 • (MS) R3206584-5 03/28/17 12:36

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Nitrate	5000	ND	4990	100	1	80-120	



L898540-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898540-04 03/28/17 21:06 • (MS) R3206584-7 03/28/17 21:22 • (MSD) R3206584-8 03/28/17 21:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	5310	56400	56000	102	101	1	80-120			1	15
Nitrate	5000	ND	4970	5030	99	101	1	80-120			1	15
Sulfate	50000	ND	50500	50600	101	101	1	80-120			0	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) R3207556-1 03/31/17 12:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

<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

L898246-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898246-04 03/31/17 20:33 • (DUP) R3207556-4 03/31/17 20:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	517	1	0		20

L898516-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-06 04/01/17 00:37 • (DUP) R3207556-7 04/01/17 00:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	20000	19900	1	1		20

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

(LCS) R3207556-2 03/31/17 16:20 • (LCSD) R3207556-3 03/31/17 18:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	73100	73000	98	97	85-115			0	20

L898246-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898246-05 03/31/17 21:01 • (MS) R3207556-5 03/31/17 21:19 • (MSD) R3207556-6 03/31/17 21:37

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	ND	47000	46700	93	92	1	80-120			1	20



Method Blank (MB)

(MB) R3207744-1 04/03/17 10:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898812-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-01 04/03/17 14:40 • (DUP) R3207744-4 04/03/17 14:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	17900	17500	1	2		20

L899065-08 Original Sample (OS) • Duplicate (DUP)

(OS) L899065-08 04/03/17 21:07 • (DUP) R3207744-7 04/03/17 21:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	8950	8930	1	0		20

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

(LCS) R3207744-2 04/03/17 11:35 • (LCSD) R3207744-3 04/03/17 12:12

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71400	72600	95	97	85-115			2	20

L899065-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899065-04 04/03/17 18:31 • (MS) R3207744-5 04/03/17 18:49 • (MSD) R3207744-6 04/03/17 19:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	ND	47700	47700	93	93	1	80-120			0	20



Method Blank (MB)

(MB) R3208138-1 04/04/17 12:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3208138-2 04/04/17 12:47 • (LCSD) R3208138-3 04/04/17 12:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5280	5170	106	103	80-120			2	20
Manganese	50.0	51.3	50.6	103	101	80-120			2	20

5 Sr

6 Qc

L898812-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898812-08 04/04/17 12:54 • (MS) R3208138-5 04/04/17 13:01 • (MSD) R3208138-6 04/04/17 13:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	19700	24700	24700	100	99	1	75-125			0	20
Manganese	50.0	2270	2330	2330	127	119	1	75-125	V		0	20

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3208026-3 04/03/17 12:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID) 104				77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3208026-1 04/03/17 11:14 • (LCSD) R3208026-2 04/03/17 11:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	6260	6090	114	111	72.0-134			2.75	20
(S) a,a,a-Trifluorotoluene(FID)				106	106	77.0-122				

5 Sr

6 Qc

7 Gl

L899390-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899390-06 04/04/17 02:57 • (MS) R3208026-4 04/04/17 03:22 • (MSD) R3208026-5 04/04/17 03:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	7830	12500	12200	84.5	79.0	1	23.0-159	E	E	2.48	20
(S) a,a,a-Trifluorotoluene(FID)					107	106		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3207637-1 04/02/17 07:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L898277-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898277-01 04/02/17 09:08 • (DUP) R3207637-2 04/02/17 10:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L898278-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898278-01 04/02/17 11:05 • (DUP) R3207637-3 04/02/17 14:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3207637-4 04/02/17 14:27 • (LCSD) R3207637-5 04/02/17 14:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.0	70.0	103	103	70.0-130			0.100	20
Ethane	129	125	126	97.2	97.8	70.0-130			0.620	20
Ethene	127	125	126	98.4	99.0	70.0-130			0.700	20

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



Method Blank (MB)

(MB) R3207638-1 04/02/17 15:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

L898563-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898563-01 04/02/17 18:20 • (DUP) R3207638-2 04/02/17 18:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

5 Sr

6 Qc

L898579-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898579-06 04/02/17 19:10 • (DUP) R3207638-3 04/02/17 21:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

7 Gl

8 Al

9 Sc

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

(LCS) R3207638-4 04/02/17 21:56 • (LCSD) R3207638-5 04/02/17 22:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethane	129	122	126	94.6	97.5	70.0-130			3.03	20
Ethene	127	121	124	95.0	97.6	70.0-130			2.68	20



Method Blank (MB)

(MB) R3207733-1 04/03/17 08:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L898516-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-03 04/03/17 10:24 • (DUP) R3207733-2 04/03/17 11:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	11500	11900	1	3.67		20

6 Qc

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

(LCS) R3207733-3 04/03/17 11:31 • (LCSD) R3207733-4 04/03/17 11:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	72.3	73.0	107	108	70.0-130			0.890	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3208060-1 04/03/17 16:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<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

L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 04/03/17 16:55 • (DUP) R3208060-2 04/03/17 19:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	10400	11900	40	12.7		20

L898516-07 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-07 04/03/17 20:15 • (DUP) R3208060-3 04/03/17 23:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	6740	7950	40	16.5		20

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

(LCS) R3208060-4 04/03/17 23:34 • (LCSD) R3208060-5 04/03/17 23:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	72.0	69.3	106	102	70.0-130			3.85	20





Method Blank (MB)

(MB) R3208413-3 04/04/17 10:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Method Blank (MB)

(MB) R3208413-3 04/04/17 10:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.176	J	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	94.9			80.0-120
(S) Dibromofluoromethane	98.2			76.0-123
(S) 4-Bromofluorobenzene	95.9			80.0-120

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) R3208413-1 04/04/17 09:09 • (LCSD) R3208413-2 04/04/17 09:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	119	146	95.1	117	10.0-160			20.4	23
Acrylonitrile	125	110	134	88.3	107	60.0-142			19.3	20
Benzene	25.0	20.8	21.5	83.4	86.2	69.0-123			3.27	20
Bromobenzene	25.0	24.0	26.0	96.0	104	79.0-120			8.06	20
Bromodichloromethane	25.0	22.6	24.4	90.3	97.6	76.0-120			7.75	20
Bromochloromethane	25.0	23.9	25.5	95.5	102	76.0-122			6.71	20
Bromoform	25.0	21.5	24.6	85.9	98.6	67.0-132			13.8	20
Bromomethane	25.0	20.7	23.1	83.0	92.3	18.0-160			10.7	20
n-Butylbenzene	25.0	26.4	26.7	106	107	72.0-126			1.31	20
sec-Butylbenzene	25.0	26.3	27.2	105	109	74.0-121			3.44	20
tert-Butylbenzene	25.0	24.1	24.8	96.5	99.3	75.0-122			2.81	20
Carbon disulfide	25.0	23.1	23.3	92.5	93.4	55.0-127			0.920	20
Carbon tetrachloride	25.0	21.4	21.5	85.7	85.9	63.0-122			0.250	20
Chlorobenzene	25.0	26.3	27.8	105	111	79.0-121			5.50	20
Chlorodibromomethane	25.0	25.5	28.4	102	114	75.0-125			10.6	20
Chloroethane	25.0	21.9	22.8	87.5	91.4	47.0-152			4.26	20
Chloroform	25.0	22.8	23.3	91.1	93.2	72.0-121			2.23	20
Chloromethane	25.0	22.0	22.2	88.1	88.9	48.0-139			0.980	20
2-Chlorotoluene	25.0	26.4	27.6	106	110	74.0-122			4.24	20
4-Chlorotoluene	25.0	26.6	28.1	107	112	79.0-120			5.26	20
1,2-Dibromo-3-Chloropropane	25.0	22.6	27.7	90.5	111	64.0-127		J3	20.1	20
1,2-Dibromoethane	25.0	23.3	26.2	93.0	105	77.0-123			12.1	20
Dibromomethane	25.0	20.3	22.5	81.4	90.1	78.0-120			10.1	20
1,2-Dichlorobenzene	25.0	26.3	27.4	105	110	80.0-120			4.33	20
1,3-Dichlorobenzene	25.0	25.9	27.5	103	110	72.0-123			6.11	20
1,4-Dichlorobenzene	25.0	25.4	26.2	101	105	77.0-120			3.12	20
Dichlorodifluoromethane	25.0	23.7	23.7	94.7	94.7	49.0-155			0.0500	20
1,1-Dichloroethane	25.0	24.1	24.6	96.4	98.4	70.0-126			2.05	20
1,2-Dichloroethane	25.0	22.8	24.4	91.1	97.6	67.0-126			6.89	20
1,1-Dichloroethene	25.0	23.9	23.7	95.5	94.6	64.0-129			0.920	20
cis-1,2-Dichloroethene	25.0	23.3	24.0	93.3	96.1	73.0-120			2.96	20
trans-1,2-Dichloroethene	25.0	23.6	23.5	94.4	94.0	71.0-121			0.360	20
1,2-Dichloropropane	25.0	23.8	26.0	95.2	104	75.0-125			8.87	20
1,1-Dichloropropene	25.0	24.5	25.2	98.2	101	71.0-129			2.56	20
1,3-Dichloropropane	25.0	24.1	27.5	96.5	110	80.0-121			12.9	20
cis-1,3-Dichloropropene	25.0	25.4	27.8	102	111	79.0-123			9.03	20
trans-1,3-Dichloropropene	25.0	24.9	28.4	99.8	113	74.0-127			12.9	20
trans-1,4-Dichloro-2-butene	25.0	21.0	26.3	84.2	105	55.0-134		J3	22.3	20
2,2-Dichloropropane	25.0	22.1	23.6	88.5	94.4	60.0-125			6.45	20
Di-isopropyl ether	25.0	22.1	23.2	88.3	92.8	59.0-133			5.04	20

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) R3208413-1 04/04/17 09:09 • (LCSD) R3208413-2 04/04/17 09:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	23.3	24.5	93.1	97.8	77.0-120			4.95	20
Hexachloro-1,3-butadiene	25.0	27.1	27.0	109	108	64.0-131			0.570	20
2-Hexanone	125	118	159	94.4	127	58.0-147		J3	29.7	20
n-Hexane	25.0	19.0	19.5	75.8	78.1	56.0-124			2.98	20
Iodomethane	125	115	117	92.1	93.6	57.0-140			1.59	20
Isopropylbenzene	25.0	23.3	24.2	93.2	96.7	75.0-120			3.68	20
p-Isopropyltoluene	25.0	27.5	28.3	110	113	74.0-126			2.87	20
2-Butanone (MEK)	125	118	155	94.7	124	37.0-158		J3	27.0	20
Methylene Chloride	25.0	22.3	23.0	89.1	91.9	66.0-121			3.01	20
4-Methyl-2-pentanone (MIBK)	125	121	160	97.1	128	59.0-143		J3	27.3	20
Methyl tert-butyl ether	25.0	19.9	22.6	79.7	90.5	64.0-123			12.7	20
Naphthalene	25.0	20.4	22.9	81.7	91.7	62.0-128			11.5	20
n-Propylbenzene	25.0	23.5	24.4	94.0	97.5	79.0-120			3.69	20
Styrene	25.0	24.8	26.4	99.3	106	78.0-124			6.27	20
1,1,1,2-Tetrachloroethane	25.0	26.4	27.8	105	111	75.0-122			5.35	20
1,1,2,2-Tetrachloroethane	25.0	20.6	24.5	82.4	98.1	71.0-122			17.4	20
1,1,2-Trichlorotrifluoroethane	25.0	22.0	22.4	87.9	89.5	61.0-136			1.83	20
Tetrachloroethene	25.0	26.1	27.2	104	109	70.0-127			4.15	20
Toluene	25.0	20.6	21.9	82.4	87.8	77.0-120			6.29	20
1,2,3-Trichlorobenzene	25.0	26.3	27.9	105	111	61.0-133			5.96	20
1,2,4-Trichlorobenzene	25.0	27.4	28.4	109	114	69.0-129			3.82	20
1,1,1-Trichloroethane	25.0	22.8	23.3	91.1	93.1	68.0-122			2.19	20
1,1,2-Trichloroethane	25.0	21.9	24.9	87.4	99.8	78.0-120			13.2	20
Trichloroethene	25.0	24.3	25.8	97.2	103	78.0-120			5.91	20
Trichlorofluoromethane	25.0	23.4	25.1	93.4	101	56.0-137			7.36	20
1,2,3-Trichloropropane	25.0	22.9	27.3	91.7	109	72.0-124			17.4	20
1,2,4-Trimethylbenzene	25.0	26.0	27.1	104	108	75.0-120			4.23	20
1,2,3-Trimethylbenzene	25.0	23.1	23.6	92.3	94.5	75.0-120			2.36	20
1,3,5-Trimethylbenzene	25.0	25.9	26.8	104	107	75.0-120			3.16	20
Vinyl acetate	125	110	123	87.8	98.2	46.0-160			11.1	20
Vinyl chloride	25.0	24.2	24.3	96.9	97.0	64.0-133			0.120	20
Xylenes, Total	75.0	69.0	72.3	92.0	96.4	77.0-120			4.67	20
(S) Toluene-d8				94.6	95.8	80.0-120				
(S) Dibromofluoromethane				95.2	93.1	76.0-123				
(S) 4-Bromofluorobenzene				96.9	98.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
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.
J3	The associated batch QC was outside the established quality control range for precision.
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		

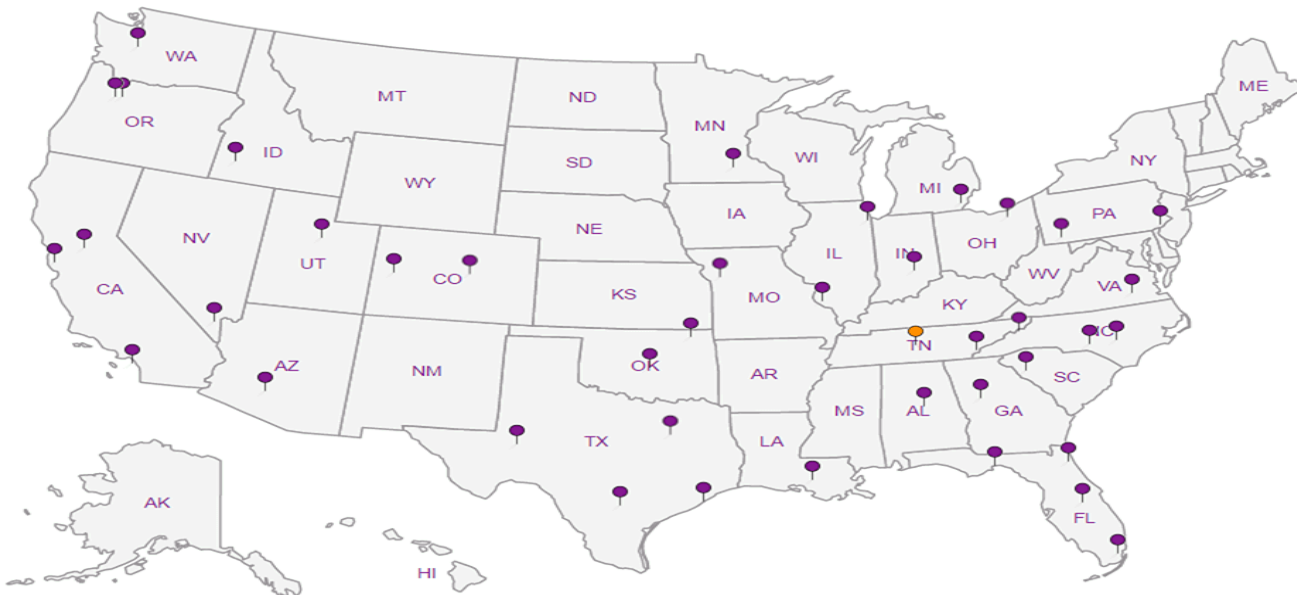
## Third Party & Federal Accreditations

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.**



<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

**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:  
Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



YOUR LAB OF CHOICE

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



L# **L898514**  
**1243**

Acctnum: **PESENVSWA**

Template: **T121414**

Prelogin: **P592684**

TSR: **110 - Brian Ford**

PB: **3-13-17**

Shipped Via: **FedEX Ground**

Report to:  
**Bill Haldeman**

Email To: **bhaldeman@pesenv.com**

Project  
Description: **American Linen Supply**

City/State  
Collected: **Seattle, WA**

Phone: **206-529-3980**  
Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
*Chris Deben*

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  
*Chris Deben*

Rush? (Lab MUST Be Notified)

Quote #

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

Date Results Needed

No.  
of  
Cnts

Immediately  
Packed on Ice

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	*NO3,Cl,SO4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
F13-032717	Grab	GW	25	3/27/17	910	11	X	X	X	X	X	X		01
F9-032717	Grab	GW	25	3/27/17	1115	6	X	X	X	X	X	X		02
M15-032717	Grab	GW	25	3/27/17	930	9	X	X	X	X	X	X		03
M15-0-032717	Grab	GW	25	3/27/17	940	9	X	X	X	X	X	X		04
C12-032717	Grab	GW	25	3/27/17	1025	4	X	X	X	X	X	X		05
J15-032717	Grab	GW	25	3/27/17	1135	9	X	X	X	X	X	X		06
<del>MW-131-032717</del>	<del>GRAB</del>	<del>GW</del>		3/27/17	1350	11	X	X	X	X	X	X	(C) (N)	07
W-MW-02-032717	Grab	GW	75	3/27/17	1350	9	X	X	X	X	X	X		08
MW-131-032717	GRAB	GW	49	3/27/17	1350	11	X	X	X	X	X	X		09
MW107-032717	GRAB	GW	40	3/27/17	1510	9	X	X	X	X	X	X		

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

Remarks: \*Nitrate has a 48 hour hold time

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

Sample Receipt Checklist  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  
*Chris Deben*

Date: **3/27/17**  
Time: **1600**

Received by: (Signature)

Trip Blank Received: Yes /  No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: **3.4 NT °C**  
Bottles Received: **77**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

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

Received for lab by: (Signature)  
*Timothy...*

Date: **3-28-17**  
Time: **845**

Hold: \_\_\_\_\_  
Condition: **NCF / OK**

## MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 27, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L898516

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Nine (9) groundwater samples including a field duplicate sample were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 27, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition; 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898516. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898516 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## **Method Blank Results**

### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level naphthalene detection was reported in the method blank (Batch WG966242). Detection is less than the RDL but greater than the method detection limit (MDL). A naphthalene detection is reported in associated sample F9-032717. **Naphthalene result in sample F9-032717 is qualified as non-detect (U) due to blank contamination.**

### *NWTPH-Gx Method:*

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

### *USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

## **Trip Blank Results**

### *USEPA Method 8260C (VOCs) and NWTPH-Gx:*

A trip blank was not collected.

## **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.



## **Field Duplicate Analyses**

Field duplicates M15-032717 and M15-D-032717 were evaluated for overall precision. Field duplicate results are comparable and less than 20% RPD.

## **Laboratory Duplicate Analyses**

### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

### *NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

### *Method RSK-175:*

Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD.

### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

### *General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was performed on a client sample from a different SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples, and on client sample J15-032717. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on a non-client sample and on sample J15-032717. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## **Surrogate Recoveries**

### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### *NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

#### *USEPA Method 8260C (VOCs):*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG966242) RPDs for compounds 1,2-dibromo-3-chloropropane, trans-1,4-dichloro-2-butene, 2-hexanone, 2-butanone (MEK), and 4-methyl-2-pentanone (MIBK) are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

#### *NWTPH-Gx Method:*

LCS/LCSD was analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

#### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

#### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

#### *General Chemistry:*

*SM 2320B:* LCS/LCSDs were analyzed by SM Method 2320. The LCS/LCSD %Rs' and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

### **Matrix Spike/Matrix Spike Duplicates**

#### *USEPA Method 8260C (VOCs):*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

#### *NWTPH-Gx Method:*

Matrix spike analysis was performed on a non-client sample within the analytical batch.

MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water for each analytical batch with the following discussion:

- MS/MSD recoveries for gasoline are within laboratory acceptance criteria however results are qualified (E) by the laboratory because the spiked results exceed the upper limit of the calibration range. No action was taken other than to note that the matrix spike was performed on a non-client sample. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*

Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a client sample from a different SDG within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Matrix spike recovery for manganese was slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

## **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	266000		2710	20000	1	03/28/2017 17:09	WG964734

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	8850		51.9	1000	1	03/28/2017 15:43	WG964797
Nitrate	U		22.7	100	1	03/28/2017 15:43	WG964797
Sulfate	68300		77.4	5000	1	03/28/2017 15:43	WG964797

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	10000		102	1000	1	03/31/2017 23:51	WG965719

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	24200		15.0	100	1	04/04/2017 13:08	WG965287
Manganese	651		0.250	5.00	1	04/04/2017 13:08	WG965287

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/03/2017 21:28	WG966448
(S) a,a,a-Trifluorotoluene(FID) 104				77.0-122		04/03/2017 21:28	WG966448

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	510		0.287	0.678	1	04/02/2017 12:11	WG966467
Ethane	U		0.296	1.29	1	04/02/2017 12:11	WG966467
Ethene	U		0.422	1.27	1	04/02/2017 12:11	WG966467

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.42	J J	1.05	25.0	1	04/04/2017 11:50	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 11:50	WG966242
Benzene	U		0.0896	0.500	1	04/04/2017 11:50	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 11:50	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 11:50	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 11:50	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 11:50	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 11:50	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 11:50	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 11:50	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 11:50	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 11:50	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 11:50	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 11:50	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 11:50	WG966242
Chloroethane	U		0.141	0.500	1	04/04/2017 11:50	WG966242

GC 4/12/17





Collected date/time: 03/27/17 09:10

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloroform	U		0.0860	0.500	1	04/04/2017 11:50	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 11:50	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 11:50	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 11:50	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 11:50	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 11:50	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 11:50	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 11:50	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 11:50	WG966242
cis-1,2-Dichloroethene	0.218	J J	0.0933	0.500	1	04/04/2017 11:50	WG966242
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/04/2017 11:50	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 11:50	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 11:50	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 11:50	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 11:50	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 11:50	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 11:50	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 11:50	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 11:50	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 11:50	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 11:50	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 11:50	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 11:50	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 11:50	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 11:50	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 11:50	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 11:50	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 11:50	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 11:50	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 11:50	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 11:50	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 11:50	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 11:50	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 11:50	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 11:50	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 11:50	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 11:50	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 11:50	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 11:50	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 11:50	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 11:50	WG966242
Trichloroethene	U		0.153	0.500	1	04/04/2017 11:50	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 11:50	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 11:50	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 11:50	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 11:50	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 11:50	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 11:50	WG966242
Vinyl chloride	0.936		0.118	0.500	1	04/04/2017 11:50	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 11:50	WG966242

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

*Handwritten signature and date: JC 4/21/17*

F13-032717

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 03/27/17 09:10

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
(S) Toluene-d8	96.1		ug/l	ug/l		date / time	
(S) Dibromofluoromethane	91.2			80.0-120		04/04/2017 11:50	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	97.1			76.0-123		04/04/2017 11:50	<a href="#">WG966242</a>
				80.0-120		04/04/2017 11:50	<a href="#">WG966242</a>

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC 21  
4/17/17





Collected date/time: 03/27/17 11:15

L898516

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/04/2017 00:08	WG966448
(S) o,a,a-Trifluorotoluene(FID) 104				77.0-122		04/04/2017 00:08	WG966448

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.40	J	1.05	25.0	1	04/04/2017 12:10	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:10	WG966242
Benzene	0.529		0.0896	0.500	1	04/04/2017 12:10	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:10	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:10	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:10	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 12:10	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 12:10	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:10	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:10	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:10	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:10	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:10	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:10	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:10	WG966242
Chloroethane	U		0.141	0.500	1	04/04/2017 12:10	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 12:10	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 12:10	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:10	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:10	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:10	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:10	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:10	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:10	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:10	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 12:10	WG966242
cis-1,2-Dichloroethene	0.158	J	0.0933	0.500	1	04/04/2017 12:10	WG966242
trans-1,2-Dichloroethene	0.539		0.152	0.500	1	04/04/2017 12:10	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:10	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:10	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:10	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:10	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:10	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:10	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:10	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:10	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:10	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:10	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:10	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 12:10	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 12:10	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:10	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:10	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:10	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:10	WG966242

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

QC  
4/12/17



Collected date/time: 03/27/17 11:15

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U	<u>J3</u>	0.823	2.50	1	04/04/2017 12:10	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:10	WG966242
Naphthalene	0.195	<i>ll</i> <u>BJ</u>	0.174	0.500	1	04/04/2017 12:10	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:10	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 12:10	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:10	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:10	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:10	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:10	WG966242
Toluene	2.04		0.412	1.00	1	04/04/2017 12:10	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:10	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:10	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:10	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:10	WG966242
Trichloroethene	U		0.153	0.500	1	04/04/2017 12:10	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:10	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:10	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:10	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:10	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:10	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:10	WG966242
Vinyl chloride	U		0.118	0.500	1	04/04/2017 12:10	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:10	WG966242
(S) Toluene-d8	95.7			80.0-120		04/04/2017 12:10	WG966242
(S) Dibromofluoromethane	93.0			76.0-123		04/04/2017 12:10	WG966242
(S) 4-Bromofluorobenzene	96.6			80.0-120		04/04/2017 12:10	WG966242

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

*ll*  
*4/12/17*





Collected date/time: 03/27/17 09:30

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	830000		2710	20000	1	03/28/2017 17:16	<a href="#">WG964734</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	11600		51.9	1000	1	03/28/2017 16:44	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 16:44	<a href="#">WG964797</a>
Sulfate	40400		77.4	5000	1	03/28/2017 16:44	<a href="#">WG964797</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	11400		102	1000	1	04/01/2017 00:06	<a href="#">WG965719</a>

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	3760		15.0	100	1	04/04/2017 13:11	<a href="#">WG965287</a>
Manganese	6070		0.250	5.00	1	04/04/2017 13:11	<a href="#">WG965287</a>

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	11500		5.74	13.6	20	04/03/2017 10:24	<a href="#">WG966662</a>
Ethane	U		0.296	1.29	1	04/02/2017 12:28	<a href="#">WG966467</a>
Ethene	U		0.422	1.27	1	04/02/2017 12:28	<a href="#">WG966467</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.45	J	1.05	25.0	1	04/04/2017 12:31	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:31	<a href="#">WG966242</a>
Benzene	U		0.0896	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloroethane	U		0.141	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:31	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:31	<a href="#">WG966242</a>

*See 4/12/17*





Collected date/time: 03/27/17 09:40

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	817000		2710	20000	1	03/29/2017 07:53	WG964934

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	11600		51.9	1000	1	03/28/2017 17:15	WG964797
Nitrate	U		22.7	100	1	03/28/2017 17:15	WG964797
Sulfate	40400		77.4	5000	1	03/28/2017 17:15	WG964797

Ss

Cn

Sl

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	11700		102	1000	1	04/01/2017 00:20	WG965719

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	3770		15.0	100	1	04/04/2017 13:25	WG965287
Manganese	6170		0.250	5.00	1	04/04/2017 13:25	WG965287

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	10400		11.5	27.1	40	04/03/2017 16:55	WG966793
Ethane	U		0.296	1.29	1	04/02/2017 15:17	WG966468
Ethene	U		0.422	1.27	1	04/02/2017 15:17	WG966468

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.79	J ↓	1.05	25.0	1	04/04/2017 12:51	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 12:51	WG966242
Benzene	U		0.0896	0.500	1	04/04/2017 12:51	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 12:51	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 12:51	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 12:51	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 12:51	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 12:51	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 12:51	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 12:51	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 12:51	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 12:51	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 12:51	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 12:51	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 12:51	WG966242
Chloroethane	0.196	J ↓	0.141	0.500	1	04/04/2017 12:51	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 12:51	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 12:51	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 12:51	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 12:51	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 12:51	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 12:51	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 12:51	WG966242

Jc  
4/12/17





Collected date/time: 03/27/17 09:30

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:31	WG966242	Cp
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:31	WG966242	Tc
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:31	WG966242	Ss
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:31	WG966242	Cn
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:31	WG966242	Sr
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:31	WG966242	Qc
1,1-Dichloroethene	0.631		0.188	0.500	1	04/04/2017 12:31	WG966242	Gl
cis-1,2-Dichloroethene	32.7		0.0933	0.500	1	04/04/2017 12:31	WG966242	Al
trans-1,2-Dichloroethene	0.561		0.152	0.500	1	04/04/2017 12:31	WG966242	Sc
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:31	WG966242	
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:31	WG966242	
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:31	WG966242	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:31	WG966242	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:31	WG966242	
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:31	WG966242	
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:31	WG966242	
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:31	WG966242	
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:31	WG966242	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:31	WG966242	
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:31	WG966242	
n-Hexane	U		0.305	1.00	1	04/04/2017 12:31	WG966242	
Iodomethane	U		0.377	2.50	1	04/04/2017 12:31	WG966242	
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:31	WG966242	
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:31	WG966242	
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:31	WG966242	
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:31	WG966242	
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 12:31	WG966242	
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:31	WG966242	
Naphthalene	U		0.174	0.500	1	04/04/2017 12:31	WG966242	
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:31	WG966242	
Styrene	U		0.117	0.500	1	04/04/2017 12:31	WG966242	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:31	WG966242	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:31	WG966242	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:31	WG966242	
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:31	WG966242	
Toluene	U		0.412	1.00	1	04/04/2017 12:31	WG966242	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:31	WG966242	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:31	WG966242	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:31	WG966242	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:31	WG966242	
Trichloroethene	0.733		0.153	0.500	1	04/04/2017 12:31	WG966242	
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:31	WG966242	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:31	WG966242	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:31	WG966242	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:31	WG966242	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:31	WG966242	
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:31	WG966242	
Vinyl chloride	13.2		0.118	0.500	1	04/04/2017 12:31	WG966242	
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:31	WG966242	
(S) Toluene-d8	96.3			80.0-120		04/04/2017 12:31	WG966242	
(S) Dibromofluoromethane	94.8			76.0-123		04/04/2017 12:31	WG966242	
(S) 4-Bromofluorobenzene	96.5			80.0-120		04/04/2017 12:31	WG966242	

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Collected date/time: 03/27/17 09:40

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 12:51	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 12:51	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 12:51	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloroethene	0.588		0.188	0.500	1	04/04/2017 12:51	WG966242
cis-1,2-Dichloroethene	31.7		0.0933	0.500	1	04/04/2017 12:51	WG966242
trans-1,2-Dichloroethene	0.513		0.152	0.500	1	04/04/2017 12:51	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 12:51	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 12:51	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 12:51	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 12:51	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 12:51	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 12:51	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 12:51	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 12:51	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 12:51	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 12:51	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 12:51	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 12:51	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 12:51	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 12:51	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 12:51	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 12:51	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 12:51	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 12:51	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 12:51	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 12:51	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 12:51	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 12:51	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 12:51	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 12:51	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 12:51	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 12:51	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 12:51	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 12:51	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 12:51	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 12:51	WG966242
Trichloroethene	0.670		0.153	0.500	1	04/04/2017 12:51	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 12:51	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 12:51	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 12:51	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 12:51	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 12:51	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 12:51	WG966242
Vinyl chloride	12.0		0.118	0.500	1	04/04/2017 12:51	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 12:51	WG966242
(S) Toluene-d8	96.3			80.0-120		04/04/2017 12:51	WG966242
(S) Dibromofluoromethane	92.7			76.0-123		04/04/2017 12:51	WG966242
(S) 4-Bromofluorobenzene	97.6			80.0-120		04/04/2017 12:51	WG966242

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

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4/21/17





Collected date/time: 03/27/17 10:25

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	2.71	J J	1.05	25.0	1	04/04/2017 13:11	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 13:11	WG966242
Benzene	0.243	J J	0.0896	0.500	1	04/04/2017 13:11	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 13:11	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 13:11	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 13:11	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 13:11	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 13:11	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 13:11	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 13:11	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 13:11	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 13:11	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 13:11	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 13:11	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 13:11	WG966242
Chloroethane	0.344	J J	0.141	0.500	1	04/04/2017 13:11	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 13:11	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 13:11	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 13:11	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 13:11	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 13:11	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 13:11	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 13:11	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 13:11	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 13:11	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloroethene	1.55		0.188	0.500	1	04/04/2017 13:11	WG966242
cis-1,2-Dichloroethene	95.9		0.0933	0.500	1	04/04/2017 13:11	WG966242
trans-1,2-Dichloroethene	1.97		0.152	0.500	1	04/04/2017 13:11	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 13:11	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 13:11	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 13:11	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 13:11	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 13:11	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 13:11	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 13:11	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 13:11	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 13:11	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 13:11	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 13:11	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 13:11	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 13:11	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 13:11	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 13:11	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 13:11	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 13:11	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 13:11	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 13:11	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 13:11	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 13:11	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 13:11	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 13:11	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 13:11	WG966242

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

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4/12/17



Collected date/time: 03/27/17 10:25

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 13:11	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 13:11	WG966242
Toluene	U		0.412	1.00	1	04/04/2017 13:11	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 13:11	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 13:11	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 13:11	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 13:11	WG966242
Trichloroethene	0.233	J	0.153	0.500	1	04/04/2017 13:11	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 13:11	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 13:11	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 13:11	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 13:11	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 13:11	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 13:11	WG966242
Vinyl chloride	28.4		0.118	0.500	1	04/04/2017 13:11	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 13:11	WG966242
(S) Toluene-d8	96.0			80.0-120		04/04/2017 13:11	WG966242
(S) Dibromofluoromethane	95.0			76.0-123		04/04/2017 13:11	WG966242
(S) 4-Bromofluorobenzene	97.5			80.0-120		04/04/2017 13:11	WG966242

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

4/12/17





Collected date/time: 03/27/17 11:35

L898516

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	476000		2710	20000	1	03/29/2017 08:09	WG964934

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	24200		51.9	1000	1	03/28/2017 17:46	WG964797
Nitrate	U		22.7	100	1	03/28/2017 17:46	WG964797
Sulfate	55800		77.4	5000	1	03/28/2017 17:46	WG964797

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	20000		102	1000	1	04/01/2017 00:37	WG965719

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	5520		15.0	100	1	04/04/2017 13:28	WG965287
Manganese	3340		0.250	5.00	1	04/04/2017 13:28	WG965287

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	3100		5.74	13.6	20	04/03/2017 17:12	WG966793
Ethane	U		0.296	1.29	1	04/02/2017 15:34	WG966468
Ethene	U		0.422	1.27	1	04/02/2017 15:34	WG966468

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.82	J ↓	1.05	25.0	1	04/05/2017 17:50	WG966242
Acrylonitrile	U		0.873	2.50	1	04/05/2017 17:50	WG966242
Benzene	0.188	J ↓	0.0896	0.500	1	04/05/2017 17:50	WG966242
Bromobenzene	U		0.133	0.500	1	04/05/2017 17:50	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 17:50	WG966242
Bromochloromethane	U		0.145	0.500	1	04/05/2017 17:50	WG966242
Bromoform	U		0.186	0.500	1	04/05/2017 17:50	WG966242
Bromomethane	U		0.157	0.500	1	04/05/2017 17:50	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 17:50	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 17:50	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 17:50	WG966242
Carbon disulfide	U		0.101	0.500	1	04/05/2017 17:50	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 17:50	WG966242
Chlorobenzene	U		0.140	0.500	1	04/05/2017 17:50	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 17:50	WG966242
Chloroethane	U		0.141	0.500	1	04/05/2017 17:50	WG966242
Chloroform	U		0.0860	0.500	1	04/05/2017 17:50	WG966242
Chloromethane	U		0.153	0.500	1	04/05/2017 17:50	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 17:50	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 17:50	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/05/2017 17:50	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 17:50	WG966242
Dibromomethane	U		0.117	0.500	1	04/05/2017 17:50	WG966242

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Collected date/time: 03/27/17 11:35

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 17:50	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 17:50	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 17:50	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloroethene	1.78		0.188	0.500	1	04/05/2017 17:50	WG966242
cis-1,2-Dichloroethene	46.3		0.0933	0.500	1	04/05/2017 17:50	WG966242
trans-1,2-Dichloroethene	1.18		0.152	0.500	1	04/05/2017 17:50	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 17:50	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 17:50	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 17:50	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 17:50	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 17:50	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/05/2017 17:50	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 17:50	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 17:50	WG966242
Ethylbenzene	U		0.158	0.500	1	04/05/2017 17:50	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 17:50	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/05/2017 17:50	WG966242
n-Hexane	U		0.305	1.00	1	04/05/2017 17:50	WG966242
Iodomethane	U		0.377	2.50	1	04/05/2017 17:50	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 17:50	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 17:50	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/05/2017 17:50	WG966242
Methylene Chloride	U		1.07	2.50	1	04/05/2017 17:50	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/05/2017 17:50	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 17:50	WG966242
Naphthalene	U		0.174	0.500	1	04/05/2017 17:50	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 17:50	WG966242
Styrene	U		0.117	0.500	1	04/05/2017 17:50	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 17:50	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 17:50	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 17:50	WG966242
Toluene	0.495	J J	0.412	1.00	1	04/05/2017 17:50	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 17:50	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 17:50	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 17:50	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 17:50	WG966242
Trichloroethene	U		0.153	0.500	1	04/05/2017 17:50	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 17:50	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 17:50	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 17:50	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 17:50	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 17:50	WG966242
Vinyl acetate	U		0.645	2.50	1	04/05/2017 17:50	WG966242
Vinyl chloride	6.99		0.118	0.500	1	04/05/2017 17:50	WG966242
Xylenes, Total	U		0.316	1.50	1	04/05/2017 17:50	WG966242
(S) Toluene-d8	101			80.0-120		04/05/2017 17:50	WG966242
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 17:50	WG966242
(S) 4-Bromofluorobenzene	91.3			80.0-120		04/05/2017 17:50	WG966242

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

*JK*  
*4/2/17*





Collected date/time: 03/27/17 13:50

L898516

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	455000		2710	20000	1	03/29/2017 08:16	<a href="#">WG964934</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	142000		2600	50000	50	03/28/2017 18:32	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 18:17	<a href="#">WG964797</a>
Sulfate	U		77.4	5000	1	03/28/2017 18:17	<a href="#">WG964797</a>

Ss

Cn

Si

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	204000		510	5000	5	04/03/2017 13:47	<a href="#">WG966368</a>

Qc

GI

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	47500		15.0	100	1	04/04/2017 13:32	<a href="#">WG965287</a>
Manganese	4120		0.250	5.00	1	04/04/2017 13:32	<a href="#">WG965287</a>

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	6740		11.5	27.1	40	04/03/2017 20:15	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 15:50	<a href="#">WG966468</a>
Ethene	8.32		0.422	1.27	1	04/02/2017 15:50	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	19.3	J J	1.05	25.0	1	04/04/2017 13:52	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 13:52	<a href="#">WG966242</a>
Benzene	0.270	J J	0.0896	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloroethane	0.204	J J	0.141	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloroform	U		0.0860	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Chloromethane	U		0.153	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 13:52	<a href="#">WG966242</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>
Dibromomethane	U		0.117	0.500	1	04/04/2017 13:52	<a href="#">WG966242</a>

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Collected date/time: 03/27/17 13:50

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 13:52	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 13:52	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 13:52	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 13:52	WG966242
cis-1,2-Dichloroethene	33.0		0.0933	0.500	1	04/04/2017 13:52	WG966242
trans-1,2-Dichloroethene	2.16		0.152	0.500	1	04/04/2017 13:52	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 13:52	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 13:52	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 13:52	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 13:52	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 13:52	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 13:52	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 13:52	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 13:52	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 13:52	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 13:52	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 13:52	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 13:52	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 13:52	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 13:52	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 13:52	WG966242
2-Butanone (MEK)	13.8	J3	1.28	2.50	1	04/04/2017 13:52	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 13:52	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 13:52	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 13:52	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 13:52	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 13:52	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 13:52	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 13:52	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 13:52	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 13:52	WG966242
Toluene	0.961	J J	0.412	1.00	1	04/04/2017 13:52	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 13:52	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 13:52	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 13:52	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 13:52	WG966242
Trichloroethene	0.259	J J	0.153	0.500	1	04/04/2017 13:52	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 13:52	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 13:52	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 13:52	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 13:52	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 13:52	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 13:52	WG966242
Vinyl chloride	36.4		0.118	0.500	1	04/04/2017 13:52	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 13:52	WG966242
(S) Toluene-d8	96.4			80.0-120		04/04/2017 13:52	WG966242
(S) Dibromofluoromethane	97.1			76.0-123		04/04/2017 13:52	WG966242
(S) 4-Bromofluorobenzene	96.8			80.0-120		04/04/2017 13:52	WG966242

Cp  
Tc  
Ss  
Cn  
Sr  
Qc  
Gl  
Al  
Sc

J  
4/12/17





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	911000		2710	20000	1	03/29/2017 08:23	<a href="#">WG964934</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	141000		2600	50000	50	03/28/2017 19:34	<a href="#">WG964797</a>
Nitrate	U		22.7	100	1	03/28/2017 18:48	<a href="#">WG964797</a>
Sulfate	U		77.4	5000	1	03/28/2017 18:48	<a href="#">WG964797</a>

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	8930		102	1000	1	04/03/2017 14:03	<a href="#">WG966368</a>

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	7980		15.0	100	1	04/04/2017 13:35	<a href="#">WG965287</a>
Manganese	1060		0.250	5.00	1	04/04/2017 13:35	<a href="#">WG965287</a>

Al

Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	91.9	J ↓	31.6	100	1	04/04/2017 00:32	<a href="#">WG966448</a>
(S) o,a,a-Trifluorotoluene(FID) 104				77.0-122		04/04/2017 00:32	<a href="#">WG966448</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	16200		14.4	33.9	50	04/03/2017 17:29	<a href="#">WG966793</a>
Ethane	U		0.296	1.29	1	04/02/2017 16:07	<a href="#">WG966468</a>
Ethene	280		0.422	1.27	1	04/02/2017 16:07	<a href="#">WG966468</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.93	J ↓	1.05	25.0	1	04/04/2017 14:12	<a href="#">WG966242</a>
Acrylonitrile	U		0.873	2.50	1	04/04/2017 14:12	<a href="#">WG966242</a>
Benzene	0.199	J ↓	0.0896	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromobenzene	U		0.133	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromochloromethane	U		0.145	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromoform	U		0.186	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Bromomethane	U		0.157	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Carbon disulfide	U		0.101	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chlorobenzene	U		0.140	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>
Chloroethane	0.462	J ↓	0.141	0.500	1	04/04/2017 14:12	<a href="#">WG966242</a>

Jc  
4/12/17





Collected date/time: 03/27/17 13:50

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Chloroform	U		0.0860	0.500	1	04/04/2017 14:12	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 14:12	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 14:12	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 14:12	WG966242
1,2-Dibromo-3-Chloropropane	U	J3	0.325	1.00	1	04/04/2017 14:12	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 14:12	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 14:12	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 14:12	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 14:12	WG966242
cis-1,2-Dichloroethene	243		1.87	10.0	20	04/05/2017 18:10	WG966242
trans-1,2-Dichloroethene	0.981		0.152	0.500	1	04/04/2017 14:12	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 14:12	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 14:12	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 14:12	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 14:12	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 14:12	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 14:12	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 14:12	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 14:12	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 14:12	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 14:12	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 14:12	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 14:12	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 14:12	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 14:12	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 14:12	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 14:12	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 14:12	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 14:12	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 14:12	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 14:12	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 14:12	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 14:12	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 14:12	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 14:12	WG966242
Tetrachloroethene	U		0.199	0.500	1	04/04/2017 14:12	WG966242
Toluene	0.462	J J	0.412	1.00	1	04/04/2017 14:12	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 14:12	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 14:12	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 14:12	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 14:12	WG966242
Trichloroethene	U		0.153	0.500	1	04/04/2017 14:12	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 14:12	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 14:12	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 14:12	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 14:12	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 14:12	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 14:12	WG966242
Vinyl chloride	804		2.36	10.0	20	04/05/2017 18:10	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 14:12	WG966242

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

*Handwritten signature and date: J 4/2/17*

MW-131-032717

SAMPLE RESULTS - 08

ONE LAB. NATIONWIDE.



Collected date/time: 03/27/17 13:50

L898516

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
(S) Toluene-d8	98.2			80.0-120		04/04/2017 14:12	<a href="#">WG966242</a>
(S) Toluene-d8	101			80.0-120		04/05/2017 18:10	<a href="#">WG966242</a>
(S) Dibromofluoromethane	91.0			76.0-123		04/04/2017 14:12	<a href="#">WG966242</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:10	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	91.2			80.0-120		04/05/2017 18:10	<a href="#">WG966242</a>
(S) 4-Bromofluorobenzene	98.5			80.0-120		04/04/2017 14:12	<a href="#">WG966242</a>

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

*Handwritten signature and date: 4/2/17*





Collected date/time: 03/27/17 15:10

L898516

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	559000		2710	20000	1	03/29/2017 08:30	WG964934

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	122000		2600	50000	50	03/28/2017 20:05	WG964797
Nitrate	26.2	J	22.7	100	1	03/28/2017 19:49	WG964797
Sulfate	U		77.4	5000	1	03/28/2017 19:49	WG964797

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	147000		510	5000	5	04/03/2017 22:52	WG966368

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	17600		15.0	100	1	04/04/2017 13:39	WG965287
Manganese	1120		0.250	5.00	1	04/04/2017 13:39	WG965287

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	8380		11.5	27.1	40	04/03/2017 17:45	WG966793
Ethane	U		0.296	1.29	1	04/02/2017 16:23	WG966468
Ethene	159		0.422	1.27	1	04/02/2017 16:23	WG966468

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	11.0	J	1.05	25.0	1	04/04/2017 14:32	WG966242
Acrylonitrile	U		0.873	2.50	1	04/04/2017 14:32	WG966242
Benzene	0.204	J	0.0896	0.500	1	04/04/2017 14:32	WG966242
Bromobenzene	U		0.133	0.500	1	04/04/2017 14:32	WG966242
Bromodichloromethane	U		0.0800	0.500	1	04/04/2017 14:32	WG966242
Bromochloromethane	U		0.145	0.500	1	04/04/2017 14:32	WG966242
Bromoform	U		0.186	0.500	1	04/04/2017 14:32	WG966242
Bromomethane	U		0.157	0.500	1	04/04/2017 14:32	WG966242
n-Butylbenzene	U		0.143	0.500	1	04/04/2017 14:32	WG966242
sec-Butylbenzene	U		0.134	0.500	1	04/04/2017 14:32	WG966242
tert-Butylbenzene	U		0.183	0.500	1	04/04/2017 14:32	WG966242
Carbon disulfide	U		0.101	0.500	1	04/04/2017 14:32	WG966242
Carbon tetrachloride	U		0.159	0.500	1	04/04/2017 14:32	WG966242
Chlorobenzene	U		0.140	0.500	1	04/04/2017 14:32	WG966242
Chlorodibromomethane	U		0.128	0.500	1	04/04/2017 14:32	WG966242
Chloroethane	0.406	J	0.141	0.500	1	04/04/2017 14:32	WG966242
Chloroform	U		0.0860	0.500	1	04/04/2017 14:32	WG966242
Chloromethane	U		0.153	0.500	1	04/04/2017 14:32	WG966242
2-Chlorotoluene	U		0.111	0.500	1	04/04/2017 14:32	WG966242
4-Chlorotoluene	U		0.0972	0.500	1	04/04/2017 14:32	WG966242
1,2-Dibromo-3-Chloropropane	U	J	0.325	1.00	1	04/04/2017 14:32	WG966242
1,2-Dibromoethane	U		0.193	0.500	1	04/04/2017 14:32	WG966242
Dibromomethane	U		0.117	0.500	1	04/04/2017 14:32	WG966242

*Handwritten signature and date: 4/12/17*





Collected date/time: 03/27/17 15:10

L898516

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	04/04/2017 14:32	WG966242
1,3-Dichlorobenzene	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,4-Dichlorobenzene	U		0.121	0.500	1	04/04/2017 14:32	WG966242
Dichlorodifluoromethane	U		0.127	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloroethane	U		0.114	0.500	1	04/04/2017 14:32	WG966242
1,2-Dichloroethane	U		0.108	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloroethene	U		0.188	0.500	1	04/04/2017 14:32	WG966242
cis-1,2-Dichloroethene	6.82		0.0933	0.500	1	04/05/2017 18:31	WG966242
trans-1,2-Dichloroethene	14.0		0.152	0.500	1	04/04/2017 14:32	WG966242
1,2-Dichloropropane	U		0.190	0.500	1	04/04/2017 14:32	WG966242
1,1-Dichloropropene	U		0.128	0.500	1	04/04/2017 14:32	WG966242
1,3-Dichloropropane	U		0.147	0.500	1	04/04/2017 14:32	WG966242
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/04/2017 14:32	WG966242
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/04/2017 14:32	WG966242
trans-1,4-Dichloro-2-butene	U	J3	0.257	5.00	1	04/04/2017 14:32	WG966242
2,2-Dichloropropane	U		0.0929	0.500	1	04/04/2017 14:32	WG966242
Di-isopropyl ether	U		0.0924	0.500	1	04/04/2017 14:32	WG966242
Ethylbenzene	U		0.158	0.500	1	04/04/2017 14:32	WG966242
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/04/2017 14:32	WG966242
2-Hexanone	U	J3	0.757	2.50	1	04/04/2017 14:32	WG966242
n-Hexane	U		0.305	1.00	1	04/04/2017 14:32	WG966242
Iodomethane	U		0.377	2.50	1	04/04/2017 14:32	WG966242
Isopropylbenzene	U		0.126	0.500	1	04/04/2017 14:32	WG966242
p-Isopropyltoluene	U		0.138	0.500	1	04/04/2017 14:32	WG966242
2-Butanone (MEK)	U	J3	1.28	2.50	1	04/04/2017 14:32	WG966242
Methylene Chloride	U		1.07	2.50	1	04/04/2017 14:32	WG966242
4-Methyl-2-pentanone (MIBK)	U	J3	0.823	2.50	1	04/04/2017 14:32	WG966242
Methyl tert-butyl ether	U		0.102	0.500	1	04/04/2017 14:32	WG966242
Naphthalene	U		0.174	0.500	1	04/04/2017 14:32	WG966242
n-Propylbenzene	U		0.162	0.500	1	04/04/2017 14:32	WG966242
Styrene	U		0.117	0.500	1	04/04/2017 14:32	WG966242
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/04/2017 14:32	WG966242
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/04/2017 14:32	WG966242
Tetrachloroethene	0.224	J J	0.199	0.500	1	04/04/2017 14:32	WG966242
Toluene	0.690	J J	0.412	1.00	1	04/04/2017 14:32	WG966242
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/04/2017 14:32	WG966242
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/04/2017 14:32	WG966242
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/04/2017 14:32	WG966242
1,1,2-Trichloroethane	U		0.186	0.500	1	04/04/2017 14:32	WG966242
Trichloroethene	0.370	J J	0.153	0.500	1	04/04/2017 14:32	WG966242
Trichlorofluoromethane	U		0.130	0.500	1	04/04/2017 14:32	WG966242
1,2,3-Trichloropropane	U		0.247	2.50	1	04/04/2017 14:32	WG966242
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/04/2017 14:32	WG966242
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/04/2017 14:32	WG966242
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/04/2017 14:32	WG966242
Vinyl acetate	U		0.645	2.50	1	04/04/2017 14:32	WG966242
Vinyl chloride	34.5		0.118	0.500	1	04/04/2017 14:32	WG966242
Xylenes, Total	U		0.316	1.50	1	04/04/2017 14:32	WG966242
(S) Toluene-d8	96.9			80.0-120		04/04/2017 14:32	WG966242
(S) Toluene-d8	102			80.0-120		04/05/2017 18:31	WG966242
(S) Dibromofluoromethane	92.8			76.0-123		04/04/2017 14:32	WG966242
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:31	WG966242
(S) 4-Bromofluorobenzene	93.6			80.0-120		04/05/2017 18:31	WG966242
(S) 4-Bromofluorobenzene	96.1			80.0-120		04/04/2017 14:32	WG966242

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

J  
4/21/17

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L898812  
Samples Received: 03/29/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.





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# SAMPLE SUMMARY



## MW121-032817 L898812-01 GW

			Collected by CD / SM	Collected date/time 03/28/17 09:15	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965169	1	03/29/17 13:23	03/29/17 13:23	AMC
Wet Chemistry by Method 9056A	WG965193	1	03/29/17 15:16	03/29/17 15:16	KCF
Wet Chemistry by Method 9056A	WG965193	20	03/29/17 15:32	03/29/17 15:32	KCF
Wet Chemistry by Method 9060A	WG966368	1	04/03/17 14:40	04/03/17 14:40	SJM
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 14:30	JPD
Metals (ICPMS) by Method 6020	WG965287	2	04/03/17 09:56	04/04/17 14:51	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966793	1	04/03/17 20:31	04/03/17 20:31	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 19:11	04/05/17 19:11	LRL

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## F5-032817 L898812-02 GW

			Collected by CD / SM	Collected date/time 03/28/17 10:20	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966451	1	04/03/17 13:59	04/03/17 13:59	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 19:32	04/05/17 19:32	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	10	04/06/17 17:37	04/06/17 17:37	JHH

6 Qc

7 Gl

8 Al

9 Sc

## MW120-032817 L898812-03 GW

			Collected by CD / SM	Collected date/time 03/28/17 10:40	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 19:52	04/05/17 19:52	LRL

## MW126-032817 L898812-04 GW

			Collected by CD / SM	Collected date/time 03/28/17 12:00	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 20:12	04/05/17 20:12	LRL

## SCL-MW105-032817 L898812-05 GW

			Collected by CD / SM	Collected date/time 03/28/17 12:05	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	5	04/05/17 20:33	04/05/17 20:33	LRL

## SCL-MW102-032817 L898812-06 GW

			Collected by CD / SM	Collected date/time 03/28/17 13:02	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 20:53	04/05/17 20:53	LRL

## MW122-032817 L898812-07 GW

			Collected by CD / SM	Collected date/time 03/28/17 13:40	Received date/time 03/29/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 21:13	04/05/17 21:13	LRL

# SAMPLE SUMMARY



MW108-032817 L898812-08 GW

Collected by: CD / SM  
 Collected date/time: 03/28/17 14:30  
 Received date/time: 03/29/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965169	1	03/29/17 13:30	03/29/17 13:30	AMC
Wet Chemistry by Method 9056A	WG965193	1	03/29/17 15:47	03/29/17 15:47	KCF
Wet Chemistry by Method 9056A	WG965193	20	03/29/17 16:02	03/29/17 16:02	KCF
Wet Chemistry by Method 9060A	WG966368	1	04/03/17 15:10	04/03/17 15:10	SJM
Metals (ICPMS) by Method 6020	WG965287	1	04/03/17 09:56	04/04/17 12:54	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966793	1	04/03/17 20:48	04/03/17 20:48	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG967102	10	04/04/17 15:06	04/04/17 15:06	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 21:33	04/05/17 21:33	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	5	04/06/17 17:50	04/06/17 17:50	JHH

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

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	848000		2710	20000	1	03/29/2017 13:23	<a href="#">WG965169</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	12200		51.9	1000	1	03/29/2017 15:16	<a href="#">WG965193</a>
Nitrate	U		22.7	100	1	03/29/2017 15:16	<a href="#">WG965193</a>
Sulfate	643000		1550	100000	20	03/29/2017 15:32	<a href="#">WG965193</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	17900		102	1000	1	04/03/2017 14:40	<a href="#">WG966368</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	33300		15.0	100	1	04/04/2017 14:30	<a href="#">WG965287</a>
Manganese	13200		0.500	10.0	2	04/04/2017 14:51	<a href="#">WG965287</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	479		0.287	0.678	1	04/03/2017 20:31	<a href="#">WG966793</a>
Ethane	2.04		0.296	1.29	1	04/03/2017 20:31	<a href="#">WG966793</a>
Ethene	U		0.422	1.27	1	04/03/2017 20:31	<a href="#">WG966793</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.32	J	1.05	25.0	1	04/05/2017 19:11	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:11	<a href="#">WG966572</a>
Benzene	U		0.0896	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:11	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	04/05/2017 19:11	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:11	<a href="#">WG966572</a>





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:11	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:11	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:11	WG966572
cis-1,2-Dichloroethene	0.768		0.0933	0.500	1	04/05/2017 19:11	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:11	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:11	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:11	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:11	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 19:11	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:11	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:11	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:11	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:11	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:11	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:11	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:11	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:11	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:11	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:11	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:11	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:11	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:11	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 19:11	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:11	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 19:11	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:11	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:11	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:11	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 19:11	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:11	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:11	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:11	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:11	WG966572
Trichloroethene	U		0.153	0.500	1	04/05/2017 19:11	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:11	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:11	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:11	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:11	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:11	WG966572
Vinyl chloride	5.82		0.118	0.500	1	04/05/2017 19:11	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:11	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 19:11	WG966572
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 19:11	WG966572
(S) 4-Bromofluorobenzene	92.2			80.0-120		04/05/2017 19:11	WG966572

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



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	234		31.6	100	1	04/03/2017 13:59	WG966451
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-122		04/03/2017 13:59	WG966451

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	38.3		1.05	25.0	1	04/05/2017 19:32	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:32	WG966572
Benzene	0.515		0.0896	0.500	1	04/05/2017 19:32	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:32	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:32	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:32	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 19:32	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 19:32	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:32	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:32	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:32	WG966572
Carbon disulfide	0.202	J	0.101	0.500	1	04/05/2017 19:32	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:32	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:32	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:32	WG966572
Chloroethane	0.769		0.141	0.500	1	04/05/2017 19:32	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:32	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 19:32	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 19:32	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:32	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:32	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:32	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:32	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:32	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:32	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:32	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloroethene	0.743		0.188	0.500	1	04/05/2017 19:32	WG966572
cis-1,2-Dichloroethene	516		0.933	5.00	10	04/06/2017 17:37	WG966572
trans-1,2-Dichloroethene	4.31		0.152	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:32	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:32	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:32	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:32	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 19:32	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:32	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:32	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:32	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:32	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:32	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:32	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:32	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:32	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:32	WG966572
2-Butanone (MEK)	93.1	JO	1.28	2.50	1	04/05/2017 19:32	WG966572



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:32	<a href="#">WG966572</a>
4-Methyl-2-pentanone (MIBK)	0.888	J	0.823	2.50	1	04/05/2017 19:32	<a href="#">WG966572</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Naphthalene	U		0.174	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Styrene	U		0.117	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Toluene	0.727	B J	0.412	1.00	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Trichloroethene	0.241	J	0.153	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:32	<a href="#">WG966572</a>
Vinyl chloride	90.6		0.118	0.500	1	04/05/2017 19:32	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:32	<a href="#">WG966572</a>
(S) Toluene-d8	100			80.0-120		04/05/2017 19:32	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/06/2017 17:37	<a href="#">WG966572</a>
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 19:32	<a href="#">WG966572</a>
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 17:37	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	92.4			80.0-120		04/05/2017 19:32	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	95.9			80.0-120		04/06/2017 17:37	<a href="#">WG966572</a>

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 19:52	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:52	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 19:52	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:52	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:52	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:52	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 19:52	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 19:52	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:52	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:52	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:52	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:52	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:52	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:52	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:52	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 19:52	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:52	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 19:52	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 19:52	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:52	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:52	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:52	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:52	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:52	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:52	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:52	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloroethane	1.88		0.114	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloroethene	0.303	J	0.188	0.500	1	04/05/2017 19:52	WG966572
cis-1,2-Dichloroethene	18.4		0.0933	0.500	1	04/05/2017 19:52	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichloropropane	0.768		0.190	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:52	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:52	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:52	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:52	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 19:52	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:52	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:52	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:52	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:52	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:52	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:52	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:52	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:52	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:52	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:52	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:52	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:52	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:52	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 19:52	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:52	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 19:52	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:52	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	0.417	J	0.164	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Tetrachloroethene	13.9		0.199	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Toluene	0.458	B J	0.412	1.00	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,1,1-Trichloroethane	0.277	J	0.0940	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Trichloroethene	5.81		0.153	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:52	<a href="#">WG966572</a>
Vinyl chloride	0.871		0.118	0.500	1	04/05/2017 19:52	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:52	<a href="#">WG966572</a>
(S) Toluene-d8	101			80.0-120		04/05/2017 19:52	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 19:52	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	89.9			80.0-120		04/05/2017 19:52	<a href="#">WG966572</a>

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





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	U		1.05	25.0	1	04/05/2017 20:12	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 20:12	WG966572
Benzene	0.148	J	0.0896	0.500	1	04/05/2017 20:12	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 20:12	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 20:12	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 20:12	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 20:12	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 20:12	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 20:12	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 20:12	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 20:12	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 20:12	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 20:12	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 20:12	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 20:12	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 20:12	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 20:12	WG966572
Chloroform	0.826		0.0860	0.500	1	04/05/2017 20:12	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 20:12	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 20:12	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 20:12	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 20:12	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 20:12	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 20:12	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 20:12	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 20:12	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 20:12	WG966572
cis-1,2-Dichloroethene	0.283	J	0.0933	0.500	1	04/05/2017 20:12	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 20:12	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 20:12	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 20:12	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 20:12	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 20:12	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 20:12	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 20:12	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 20:12	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 20:12	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 20:12	WG966572
n-Hexane	0.466	J	0.305	1.00	1	04/05/2017 20:12	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 20:12	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 20:12	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 20:12	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 20:12	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 20:12	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 20:12	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 20:12	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 20:12	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 20:12	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 20:12	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 20:12	WG966572

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



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Toluene	0.563	<u>BJ</u>	0.412	1.00	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 20:12	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 20:12	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 20:12	<a href="#">WG966572</a>
(S) Toluene-d8	100			80.0-120		04/05/2017 20:12	<a href="#">WG966572</a>
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 20:12	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	90.8			80.0-120		04/05/2017 20:12	<a href="#">WG966572</a>

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.25	125	5	04/05/2017 20:33	WG966572
Acrylonitrile	U		4.36	12.5	5	04/05/2017 20:33	WG966572
Benzene	257		0.448	2.50	5	04/05/2017 20:33	WG966572
Bromobenzene	U		0.665	2.50	5	04/05/2017 20:33	WG966572
Bromodichloromethane	U		0.400	2.50	5	04/05/2017 20:33	WG966572
Bromochloromethane	U		0.725	2.50	5	04/05/2017 20:33	WG966572
Bromoform	U		0.930	2.50	5	04/05/2017 20:33	WG966572
Bromomethane	U		0.785	2.50	5	04/05/2017 20:33	WG966572
n-Butylbenzene	4.61		0.715	2.50	5	04/05/2017 20:33	WG966572
sec-Butylbenzene	3.67		0.670	2.50	5	04/05/2017 20:33	WG966572
tert-Butylbenzene	U		0.915	2.50	5	04/05/2017 20:33	WG966572
Carbon disulfide	U		0.505	2.50	5	04/05/2017 20:33	WG966572
Carbon tetrachloride	U		0.795	2.50	5	04/05/2017 20:33	WG966572
Chlorobenzene	U		0.700	2.50	5	04/05/2017 20:33	WG966572
Chlorodibromomethane	U		0.640	2.50	5	04/05/2017 20:33	WG966572
Chloroethane	U		0.705	2.50	5	04/05/2017 20:33	WG966572
2-Chloroethyl vinyl ether	U		4.38	12.5	5	04/05/2017 20:33	WG966572
Chloroform	20.9		0.430	2.50	5	04/05/2017 20:33	WG966572
Chloromethane	U		0.765	2.50	5	04/05/2017 20:33	WG966572
2-Chlorotoluene	U		0.555	2.50	5	04/05/2017 20:33	WG966572
4-Chlorotoluene	U		0.486	2.50	5	04/05/2017 20:33	WG966572
1,2-Dibromo-3-Chloropropane	U		1.62	5.00	5	04/05/2017 20:33	WG966572
1,2-Dibromoethane	U		0.965	2.50	5	04/05/2017 20:33	WG966572
Dibromomethane	U		0.585	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichlorobenzene	U		0.505	2.50	5	04/05/2017 20:33	WG966572
1,3-Dichlorobenzene	U		0.650	2.50	5	04/05/2017 20:33	WG966572
1,4-Dichlorobenzene	U		0.605	2.50	5	04/05/2017 20:33	WG966572
Dichlorodifluoromethane	U		0.635	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloroethane	U		0.570	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichloroethane	U		0.540	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloroethene	U		0.940	2.50	5	04/05/2017 20:33	WG966572
cis-1,2-Dichloroethene	U		0.466	2.50	5	04/05/2017 20:33	WG966572
trans-1,2-Dichloroethene	U		0.760	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichloropropane	U		0.950	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloropropene	U		0.640	2.50	5	04/05/2017 20:33	WG966572
1,3-Dichloropropane	U		0.735	2.50	5	04/05/2017 20:33	WG966572
cis-1,3-Dichloropropene	U		0.488	2.50	5	04/05/2017 20:33	WG966572
trans-1,3-Dichloropropene	U		1.11	2.50	5	04/05/2017 20:33	WG966572
trans-1,4-Dichloro-2-butene	U	JO	1.28	25.0	5	04/05/2017 20:33	WG966572
2,2-Dichloropropane	U		0.464	2.50	5	04/05/2017 20:33	WG966572
Di-isopropyl ether	U		0.462	2.50	5	04/05/2017 20:33	WG966572
Ethylbenzene	26.5		0.790	2.50	5	04/05/2017 20:33	WG966572
Hexachloro-1,3-butadiene	U		0.785	5.00	5	04/05/2017 20:33	WG966572
2-Hexanone	U		3.78	12.5	5	04/05/2017 20:33	WG966572
n-Hexane	58.6		1.52	5.00	5	04/05/2017 20:33	WG966572
Iodomethane	U		1.88	12.5	5	04/05/2017 20:33	WG966572
Isopropylbenzene	66.9		0.630	2.50	5	04/05/2017 20:33	WG966572
p-Isopropyltoluene	0.915	J	0.690	2.50	5	04/05/2017 20:33	WG966572
2-Butanone (MEK)	U		6.40	12.5	5	04/05/2017 20:33	WG966572
Methylene Chloride	U		5.35	12.5	5	04/05/2017 20:33	WG966572
4-Methyl-2-pentanone (MIBK)	U		4.12	12.5	5	04/05/2017 20:33	WG966572
Methyl tert-butyl ether	U		0.510	2.50	5	04/05/2017 20:33	WG966572
Naphthalene	3.64		0.870	2.50	5	04/05/2017 20:33	WG966572
n-Propylbenzene	134		0.810	2.50	5	04/05/2017 20:33	WG966572
Styrene	U		0.585	2.50	5	04/05/2017 20:33	WG966572
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	04/05/2017 20:33	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Tetrachloroethene	U		0.995	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Toluene	16.3		2.06	5.00	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.820	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		1.78	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.470	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.930	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Trichloroethene	U		0.765	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.650	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		1.24	12.5	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.615	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	8.81		0.370	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	3.51		0.620	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Vinyl acetate	U		3.22	12.5	5	04/05/2017 20:33	<a href="#">WG966572</a>
Vinyl chloride	U		0.590	2.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
Xylenes, Total	33.9		1.58	7.50	5	04/05/2017 20:33	<a href="#">WG966572</a>
(S) Toluene-d8	101			80.0-120		04/05/2017 20:33	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 20:33	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	90.6			80.0-120		04/05/2017 20:33	<a href="#">WG966572</a>

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 20:53	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 20:53	WG966572
Benzene	6.74		0.0896	0.500	1	04/05/2017 20:53	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 20:53	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 20:53	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 20:53	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 20:53	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 20:53	WG966572
n-Butylbenzene	7.17		0.143	0.500	1	04/05/2017 20:53	WG966572
sec-Butylbenzene	7.33		0.134	0.500	1	04/05/2017 20:53	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 20:53	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 20:53	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 20:53	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 20:53	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 20:53	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 20:53	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 20:53	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 20:53	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 20:53	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 20:53	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 20:53	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 20:53	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 20:53	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 20:53	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 20:53	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 20:53	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 20:53	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 20:53	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 20:53	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 20:53	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 20:53	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 20:53	WG966572
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	04/05/2017 20:53	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 20:53	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 20:53	WG966572
Ethylbenzene	0.598		0.158	0.500	1	04/05/2017 20:53	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 20:53	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 20:53	WG966572
n-Hexane	0.612	<u>J</u>	0.305	1.00	1	04/05/2017 20:53	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 20:53	WG966572
Isopropylbenzene	19.3		0.126	0.500	1	04/05/2017 20:53	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 20:53	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 20:53	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 20:53	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 20:53	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 20:53	WG966572
Naphthalene	2.09		0.174	0.500	1	04/05/2017 20:53	WG966572
n-Propylbenzene	62.7		0.162	0.500	1	04/05/2017 20:53	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 20:53	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 20:53	WG966572

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





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Toluene	0.624	<u>BJ</u>	0.412	1.00	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	4.84		0.123	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	1.50		0.0739	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 20:53	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 20:53	<a href="#">WG966572</a>
Xylenes, Total	2.08		0.316	1.50	1	04/05/2017 20:53	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 20:53	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 20:53	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	91.3			80.0-120		04/05/2017 20:53	<a href="#">WG966572</a>

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.11	J	1.05	25.0	1	04/05/2017 21:13	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 21:13	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 21:13	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 21:13	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 21:13	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 21:13	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 21:13	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 21:13	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 21:13	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 21:13	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 21:13	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 21:13	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 21:13	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 21:13	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 21:13	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 21:13	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 21:13	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 21:13	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 21:13	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 21:13	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 21:13	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 21:13	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 21:13	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 21:13	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 21:13	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 21:13	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 21:13	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 21:13	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 21:13	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 21:13	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 21:13	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 21:13	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 21:13	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 21:13	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 21:13	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 21:13	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 21:13	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 21:13	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 21:13	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 21:13	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 21:13	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 21:13	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 21:13	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 21:13	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 21:13	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 21:13	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 21:13	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 21:13	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 21:13	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 21:13	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Toluene	U		0.412	1.00	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 21:13	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 21:13	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 21:13	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 21:13	<a href="#">WG966572</a>
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 21:13	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	92.1			80.0-120		04/05/2017 21:13	<a href="#">WG966572</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	577000		2710	20000	1	03/29/2017 13:30	<a href="#">WG965169</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22100		51.9	1000	1	03/29/2017 15:47	<a href="#">WG965193</a>
Nitrate	U		22.7	100	1	03/29/2017 15:47	<a href="#">WG965193</a>
Sulfate	106000		1550	100000	20	03/29/2017 16:02	<a href="#">WG965193</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7320		102	1000	1	04/03/2017 15:10	<a href="#">WG966368</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	19700		15.0	100	1	04/04/2017 12:54	<a href="#">WG965287</a>
Manganese	2270	<u>V</u>	0.250	5.00	1	04/04/2017 12:54	<a href="#">WG965287</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1740		2.87	6.78	10	04/04/2017 15:06	<a href="#">WG967102</a>
Ethane	36.4		0.296	1.29	1	04/03/2017 20:48	<a href="#">WG966793</a>
Ethene	2.20		0.422	1.27	1	04/03/2017 20:48	<a href="#">WG966793</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.40	<u>J</u>	1.05	25.0	1	04/05/2017 21:33	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 21:33	<a href="#">WG966572</a>
Benzene	1.59		0.0896	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 21:33	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 21:33	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 21:33	<a href="#">WG966572</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/28/17 14:30

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 21:33	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 21:33	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloroethene	0.588		0.188	0.500	1	04/05/2017 21:33	WG966572
cis-1,2-Dichloroethene	278		0.466	2.50	5	04/06/2017 17:50	WG966572
trans-1,2-Dichloroethene	0.899		0.152	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 21:33	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 21:33	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 21:33	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 21:33	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 21:33	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 21:33	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 21:33	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 21:33	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 21:33	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 21:33	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 21:33	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 21:33	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 21:33	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 21:33	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 21:33	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 21:33	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 21:33	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 21:33	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 21:33	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 21:33	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 21:33	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 21:33	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 21:33	WG966572
Tetrachloroethene	73.1		0.199	0.500	1	04/05/2017 21:33	WG966572
Toluene	0.479	BJ	0.412	1.00	1	04/05/2017 21:33	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 21:33	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 21:33	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 21:33	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 21:33	WG966572
Trichloroethene	12.5		0.153	0.500	1	04/05/2017 21:33	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 21:33	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 21:33	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 21:33	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 21:33	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 21:33	WG966572
Vinyl chloride	52.3		0.118	0.500	1	04/05/2017 21:33	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 21:33	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 21:33	WG966572
(S) Toluene-d8	104			80.0-120		04/06/2017 17:50	WG966572
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 21:33	WG966572
(S) Dibromofluoromethane	109			76.0-123		04/06/2017 17:50	WG966572
(S) 4-Bromofluorobenzene	89.6			80.0-120		04/05/2017 21:33	WG966572
(S) 4-Bromofluorobenzene	97.9			80.0-120		04/06/2017 17:50	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3206759-1 03/29/17 11:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

<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

L898774-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898774-01 03/29/17 11:46 • (DUP) R3206759-3 03/29/17 11:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	92300	93900	1	2.00		20

L898793-06 Original Sample (OS) • Duplicate (DUP)

(OS) L898793-06 03/29/17 13:44 • (DUP) R3206759-5 03/29/17 13:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	412000	411000	1	0.000		20

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

(LCS) R3206759-4 03/29/17 12:43 • (LCSD) R3206759-7 03/29/17 13:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	96200	96400	96.0	96.0	85.0-115			0.000	20



Method Blank (MB)

(MB) R3206908-1 03/29/17 06:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898839-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898839-01 03/29/17 18:52 • (DUP) R3206908-5 03/29/17 19:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	U	0.000	1	0		15
Nitrate	6170	5750	1	7		15

L898871-03 Original Sample (OS) • Duplicate (DUP)

(OS) L898871-03 03/29/17 21:11 • (DUP) R3206908-8 03/29/17 21:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	20900	20800	1	0		15
Nitrate	ND	0.000	1	0		15

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

(LCS) R3206908-2 03/29/17 07:03 • (LCSD) R3206908-3 03/29/17 07:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39300	39300	98	98	80-120			0	15
Nitrate	8000	8220	8260	103	103	80-120			0	15
Sulfate	40000	39000	38900	98	97	80-120			0	15

L898807-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L898807-01 03/29/17 14:46 • (MS) R3206908-4 03/29/17 15:01

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	46700	97900	102	1	80-120	
Nitrate	5000	1590	7260	114	1	80-120	
Sulfate	50000	5810	56400	101	1	80-120	



L898871-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898871-02 03/29/17 20:25 • (MS) R3206908-6 03/29/17 20:40 • (MSD) R3206908-7 03/29/17 20:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	30600	81200	81700	101	102	1	80-120			1	15
Nitrate	5000	365	5460	5390	102	100	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) R3207744-1 04/03/17 10:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898812-01 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-01 04/03/17 14:40 • (DUP) R3207744-4 04/03/17 14:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	17900	17500	1	2		20

L899065-08 Original Sample (OS) • Duplicate (DUP)

(OS) L899065-08 04/03/17 21:07 • (DUP) R3207744-7 04/03/17 21:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	8950	8930	1	0		20

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

(LCS) R3207744-2 04/03/17 11:35 • (LCSD) R3207744-3 04/03/17 12:12

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71400	72600	95	97	85-115			2	20

L899065-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899065-04 04/03/17 18:31 • (MS) R3207744-5 04/03/17 18:49 • (MSD) R3207744-6 04/03/17 19:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	ND	47700	47700	93	93	1	80-120			0	20



Method Blank (MB)

(MB) R3208138-1 04/04/17 12:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3208138-2 04/04/17 12:47 • (LCSD) R3208138-3 04/04/17 12:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5280	5170	106	103	80-120			2	20
Manganese	50.0	51.3	50.6	103	101	80-120			2	20

5 Sr

6 Qc

L898812-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898812-08 04/04/17 12:54 • (MS) R3208138-5 04/04/17 13:01 • (MSD) R3208138-6 04/04/17 13:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	19700	24700	24700	100	99	1	75-125			0	20
Manganese	50.0	2270	2330	2330	127	119	1	75-125	V		0	20

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3207800-3 04/03/17 11:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)				77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3207800-1 04/03/17 10:48 • (LCSD) R3207800-2 04/03/17 11:10

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	6200	6040	113	110	72.0-134			2.65	20
(S) a,a,a-Trifluorotoluene(FID)				101	101	77.0-122				

5 Sr

6 Qc

7 Gl

L898995-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898995-04 04/04/17 00:29 • (MS) R3207800-4 04/04/17 00:51 • (MSD) R3207800-5 04/04/17 01:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	ND	5440	5800	98.9	105	1	23.0-159			6.45	20
(S) a,a,a-Trifluorotoluene(FID)					100	101		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3208060-1 04/03/17 16:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-04 04/03/17 16:55 • (DUP) R3208060-2 04/03/17 19:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	10400	11900	40	12.7		20
Ethane	U	0.000	40	0.000		20
Ethene	U	0.000	40	0.000		20

L898516-07 Original Sample (OS) • Duplicate (DUP)

(OS) L898516-07 04/03/17 20:15 • (DUP) R3208060-3 04/03/17 23:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	6740	7950	40	16.5		20
Ethane	U	0.000	40	0.000		20
Ethene	U	0.000	40	0.000		20

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

(LCS) R3208060-4 04/03/17 23:34 • (LCSD) R3208060-5 04/03/17 23:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	72.0	69.3	106	102	70.0-130			3.85	20
Ethane	129	130	125	101	96.8	70.0-130			3.79	20
Ethene	127	128	124	101	97.3	70.0-130			3.39	20



Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<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

L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	1740	1840	1	5.65		20

L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

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

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	69.6	68.8	103	101	70.0-130			1.12	20



Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3208545-3 04/05/17 14:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U	U	0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	106			76.0-123
(S) 4-Bromofluorobenzene	92.8			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) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	126	124	101	99.2	10.0-160			1.53	23
Acrylonitrile	125	152	147	122	118	60.0-142			3.35	20
Benzene	25.0	25.9	25.2	104	101	69.0-123			2.70	20
Bromobenzene	25.0	21.8	21.9	87.4	87.6	79.0-120			0.240	20
Bromodichloromethane	25.0	24.8	24.7	99.2	98.7	76.0-120			0.550	20
Bromochloromethane	25.0	26.4	26.3	105	105	76.0-122			0.180	20
Bromoform	25.0	18.8	18.7	75.1	74.6	67.0-132			0.600	20
Bromomethane	25.0	29.5	29.2	118	117	18.0-160			0.960	20
n-Butylbenzene	25.0	25.8	24.7	103	98.6	72.0-126			4.54	20
sec-Butylbenzene	25.0	22.4	22.3	89.7	89.4	74.0-121			0.310	20
tert-Butylbenzene	25.0	20.5	20.3	81.9	81.3	75.0-122			0.710	20
Carbon disulfide	25.0	28.5	27.7	114	111	55.0-127			2.72	20
Carbon tetrachloride	25.0	22.5	21.6	89.8	86.4	63.0-122			3.84	20
Chlorobenzene	25.0	23.0	23.0	92.0	92.1	79.0-121			0.0700	20
Chlorodibromomethane	25.0	23.6	23.0	94.6	92.0	75.0-125			2.69	20
Chloroethane	25.0	28.3	27.9	113	112	47.0-152			1.40	20
2-Chloroethyl vinyl ether	125	137	131	110	105	10.0-160			4.57	22
Chloroform	25.0	27.3	26.7	109	107	72.0-121			2.13	20
Chloromethane	25.0	24.6	24.3	98.3	97.0	48.0-139			1.30	20
2-Chlorotoluene	25.0	22.8	22.7	91.3	90.9	74.0-122			0.430	20
4-Chlorotoluene	25.0	22.4	22.6	89.6	90.3	79.0-120			0.750	20
1,2-Dibromo-3-Chloropropane	25.0	23.8	22.8	95.3	91.3	64.0-127			4.30	20
1,2-Dibromoethane	25.0	23.2	22.7	93.0	90.8	77.0-123			2.30	20
Dibromomethane	25.0	22.6	22.2	90.5	88.7	78.0-120			1.98	20
1,2-Dichlorobenzene	25.0	23.8	23.5	95.4	93.9	80.0-120			1.54	20
1,3-Dichlorobenzene	25.0	20.5	20.9	81.9	83.7	72.0-123			2.10	20
1,4-Dichlorobenzene	25.0	23.5	22.8	94.0	91.2	77.0-120			3.06	20
Dichlorodifluoromethane	25.0	24.3	22.9	97.1	91.7	49.0-155			5.71	20
1,1-Dichloroethane	25.0	28.7	28.1	115	112	70.0-126			2.02	20
1,2-Dichloroethane	25.0	25.1	25.4	101	101	67.0-126			0.910	20
1,1-Dichloroethene	25.0	28.5	27.5	114	110	64.0-129			3.71	20
cis-1,2-Dichloroethene	25.0	28.3	27.7	113	111	73.0-120			1.94	20
trans-1,2-Dichloroethene	25.0	27.9	27.2	112	109	71.0-121			2.40	20
1,2-Dichloropropane	25.0	27.4	26.8	110	107	75.0-125			2.30	20
1,1-Dichloropropene	25.0	29.3	28.1	117	113	71.0-129			4.15	20
1,3-Dichloropropane	25.0	24.8	24.6	99.2	98.5	80.0-121			0.710	20
cis-1,3-Dichloropropene	25.0	28.2	27.8	113	111	79.0-123			1.40	20
trans-1,3-Dichloropropene	25.0	25.5	25.0	102	100	74.0-127			2.01	20
trans-1,4-Dichloro-2-butene	25.0	20.9	19.9	83.6	79.5	55.0-134			5.03	20
2,2-Dichloropropane	25.0	27.6	27.1	111	108	60.0-125			2.10	20

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) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	26.9	26.8	108	107	59.0-133			0.460	20
Ethylbenzene	25.0	21.0	20.5	84.0	82.1	77.0-120			2.33	20
Hexachloro-1,3-butadiene	25.0	23.6	22.3	94.6	89.3	64.0-131			5.68	20
2-Hexanone	125	127	124	102	98.9	58.0-147			3.01	20
n-Hexane	25.0	24.9	23.7	99.5	94.7	56.0-124			4.95	20
Iodomethane	125	128	126	103	101	57.0-140			1.49	20
Isopropylbenzene	25.0	20.4	20.2	81.4	80.8	75.0-120			0.760	20
p-Isopropyltoluene	25.0	23.3	23.0	93.0	91.9	74.0-126			1.15	20
2-Butanone (MEK)	125	149	143	120	114	37.0-158			4.70	20
Methylene Chloride	25.0	27.2	26.9	109	108	66.0-121			0.980	20
4-Methyl-2-pentanone (MIBK)	125	144	140	115	112	59.0-143			2.70	20
Methyl tert-butyl ether	25.0	28.6	28.6	114	114	64.0-123			0.0300	20
Naphthalene	25.0	21.6	21.3	86.3	85.3	62.0-128			1.22	20
n-Propylbenzene	25.0	20.6	20.4	82.5	81.5	79.0-120			1.23	20
Styrene	25.0	21.1	20.9	84.5	83.7	78.0-124			1.00	20
1,1,1,2-Tetrachloroethane	25.0	22.5	22.7	90.0	90.9	75.0-122			1.07	20
1,1,2,2-Tetrachloroethane	25.0	22.9	22.6	91.5	90.6	71.0-122			1.02	20
1,1,2-Trichlorotrifluoroethane	25.0	26.0	25.2	104	101	61.0-136			2.88	20
Tetrachloroethene	25.0	21.8	21.6	87.3	86.4	70.0-127			1.06	20
Toluene	25.0	22.5	21.6	89.9	86.3	77.0-120			4.10	20
1,2,3-Trichlorobenzene	25.0	24.7	24.6	98.8	98.2	61.0-133			0.620	20
1,2,4-Trichlorobenzene	25.0	23.8	23.3	95.2	93.1	69.0-129			2.30	20
1,1,1-Trichloroethane	25.0	27.1	26.6	108	106	68.0-122			1.70	20
1,1,2-Trichloroethane	25.0	23.5	23.3	94.0	93.0	78.0-120			1.03	20
Trichloroethene	25.0	24.8	24.3	99.3	97.2	78.0-120			2.18	20
Trichlorofluoromethane	25.0	27.6	26.8	111	107	56.0-137			2.85	20
1,2,3-Trichloropropane	25.0	23.3	23.3	93.4	93.3	72.0-124			0.0400	20
1,2,4-Trimethylbenzene	25.0	22.5	22.6	89.8	90.3	75.0-120			0.540	20
1,2,3-Trimethylbenzene	25.0	23.3	22.4	93.1	89.6	75.0-120			3.78	20
1,3,5-Trimethylbenzene	25.0	22.6	22.6	90.5	90.5	75.0-120			0.0100	20
Vinyl acetate	125	131	125	105	99.8	46.0-160			5.24	20
Vinyl chloride	25.0	27.0	26.4	108	106	64.0-133			2.01	20
Xylenes, Total	75.0	62.1	61.4	82.8	81.9	77.0-120			1.13	20
(S) Toluene-d8				103	102	80.0-120				
(S) Dibromofluoromethane				108	107	76.0-123				
(S) 4-Bromofluorobenzene				88.8	91.7	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
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		

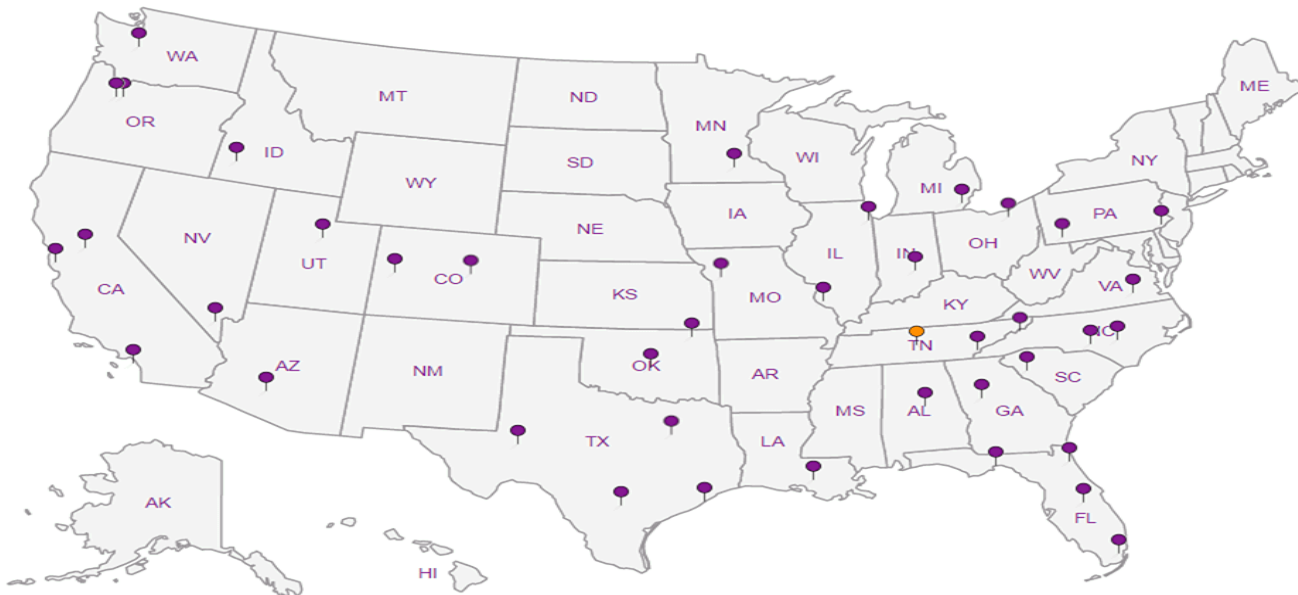
## Third Party & Federal Accreditations

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.**



**PES Environmental, Inc. - WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: bhaldeman@pesenv.com

Project  
Description: **American Linen Supply**

City/State  
Collected:

Phone: 206-529-3980  
Fax: 206-529-3985

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print): *S. McKernan*  
*C. Deber*

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature): *Chris Deber*

Rush? (Lab MUST Be Notified)

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

Date Results Needed

Immediately  
Packed on Ice N  Y

Pres  
Chk

Analysis / Container / Preservative

\*NO3,Cl,SC4,Alk 250mlHDPE-NoPres  
NWTPHGX 40mlAmb HCl  
TOC 250mlAmb-HCl  
Total Fe Mn 6020 250mlHDPE-HNO3  
low level 8260C 40mlAmb-HCl  
low level RSK175 40mlAmb-HCl

Chain of Custody Page \_\_\_ of \_\_\_



YOUR LAB OF CHOICE

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



L# **L898812**  
**J216**

Acctnum: **PESENVSWA**

Template: **T121414**

Prelogin: **P592684**

TSR: **110 - Brian Ford**

PB: **3-13-17**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO3,Cl,SC4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
MW121-032817	Grab	GW	20	3/28/17	915	9	X	X	X	X	X	X		01
FS-032817	GRAB	GW	25	3/28/17	1020	6		X			X	X		02
MW120-032817	Grab	GW	45	3/28/17	1040	4					X	X		03
MW126-032817	GRAB	GW	90	3/28/17	1200	4					X	X		04
JCL-MW105-032817	Grab	GW	27.5	3/28/17	1205	4					X	X		05
SCL-MW107-032817	GRAB	GW	12.5	3/28/17	1302	4					X	X		06
MW122-032817	Grab	GW	112	3/28/17	1340	4					X	X		07
MW108-032817	GRAB	GW	45	3/28/17	1430	9	X	X	X	X	X	X		08
		GW												
		GW												

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

Remarks: \*Nitrate has a 48 hour hold time

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

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

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

Tracking # **7174 9011 7133**

Sample Receipt Checklist  
COC Seal Present/Intact:  NP  N  
COC Signed/Accurate:  N  N  
Bottles arrive intact:  N  N  
Correct bottles used:  N  N  
Sufficient volume sent:  N  N  
IF Applicable  
VOA Zero Headspace:  N  N  
Preservation Correct/Checked:  N  N

Relinquished by: (Signature) <i>Chris Deber</i>	Date: 3/28/17	Time: 1530	Received by: (Signature)	Trip Blank Received: Yes/No HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 21.2 7011 44
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>MWA</i>	Date: 3-29-17 Time: 845 Hold: Condition: NCF / OK



## MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 27, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L898812

---

Eight (8) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 28, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L898812. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L898812 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.4 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for trans-1,4-dichloro-2-butene and 2-butanone (MEK) were identified by the laboratory for samples associated with analytical batch WG966572 (analyzed on April 5, 2017). The trans-1,4-dichloro-2-butene and 2-butanone (MEK) results are qualified by the laboratory "J0" to indicate that percent difference for trans-1,4-dichloro-2-butene and 2-butanone (MEK) CCV is outside of laboratory acceptance criteria. **All associated sample results for trans-1,4-dichloro-2-butene qualified as estimated (UJ). Sample F5-32817 result for MEK is qualified as estimated (J).**

## Method Blank Results

*USEPA Method 8260C (VOCs)*:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level toluene detection was reported in the method blank (Batch WG966572). Detection is less than the RDL but greater than the method detection limit. Low level toluene detection is reported in associated samples F5-032817, MW120-032817, MW126-032817, SCL-MW102-032817, and MW108-032817. **Toluene results in these samples are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method*:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

*Method RSK-175*:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

*USEPA Method 6020*:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A)*:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

### **Trip Blank Results**

*USEPA Method 8260C (VOCs) and NWTPH-Gx:*  
A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD results for precision data.

*Method RSK-175:*

Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) were within the laboratory control limit of 20% RPD with one exception:

- Laboratory duplicate RPD was 159% on a non-client sample (Batch WG963578) within the analytical batch. No action was taken in this case. Refer to LCS/LCSD results for precision data.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was performed on a client sample from a different SDG within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed within each analytical batch on non-client samples. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed sample MW121-032817. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

#### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

#### *NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

#### *USEPA Method 8260C (VOCs):*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water.

#### *NWTPH-Gx Method:*

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

#### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

#### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

#### *General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

### **Matrix Spike/Matrix Spike Duplicates**

#### *USEPA Method 8260C (VOCs):*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.



*NWTPH-Gx Method:*

Matrix spike analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water.

*Method RSK-175:*

Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on sample MW121-032817. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- Matrix spike recovery for manganese was slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

**Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

**Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

**Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 03/28/17 09:15

L898812

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	848000		2710	20000	1	03/29/2017 13:23	WG965169

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	12200		51.9	1000	1	03/29/2017 15:16	WG965193
Nitrate	U		22.7	100	1	03/29/2017 15:16	WG965193
Sulfate	643000		1550	100000	20	03/29/2017 15:32	WG965193

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	17900		102	1000	1	04/03/2017 14:40	WG966368

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	33300		15.0	100	1	04/04/2017 14:30	WG965287
Manganese	13200		0.500	10.0	2	04/04/2017 14:51	WG965287

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	479		0.287	0.678	1	04/03/2017 20:31	WG966793
Ethane	2.04		0.296	1.29	1	04/03/2017 20:31	WG966793
Ethene	U		0.422	1.27	1	04/03/2017 20:31	WG966793

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	2.32	↓	1.05	25.0	1	04/05/2017 19:11	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:11	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 19:11	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:11	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:11	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:11	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 19:11	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 19:11	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:11	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:11	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:11	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:11	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:11	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:11	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:11	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 19:11	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:11	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 19:11	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 19:11	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:11	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:11	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:11	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:11	WG966572

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MW121-032817

Collected date/time: 03/28/17 09:15

SAMPLE RESULTS - 01

L898812

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:11	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:11	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:11	WG966572
cis-1,2-Dichloroethene	0.768		0.0933	0.500	1	04/05/2017 19:11	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:11	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:11	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:11	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:11	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:11	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:11	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 19:11	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:11	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:11	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:11	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:11	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:11	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:11	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:11	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:11	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:11	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:11	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:11	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:11	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:11	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 19:11	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:11	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 19:11	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:11	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:11	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:11	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 19:11	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:11	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:11	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:11	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:11	WG966572
Trichloroethene	U		0.153	0.500	1	04/05/2017 19:11	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:11	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:11	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:11	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:11	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:11	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:11	WG966572
Vinyl chloride	5.82		0.118	0.500	1	04/05/2017 19:11	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:11	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 19:11	WG966572
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 19:11	WG966572
(S) 4-Bromofluorobenzene	92.2			80.0-120		04/05/2017 19:11	WG966572

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JC  
4/26/17



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	234		31.6	100	1	04/03/2017 13:59	WG966451
(S) o,a,a-Trifluorotoluene(FID)	99.6			77.0-122		04/03/2017 13:59	WG966451

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	38.3		1.05	25.0	1	04/05/2017 19:32	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:32	WG966572
Benzene	0.515		0.0896	0.500	1	04/05/2017 19:32	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:32	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:32	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:32	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 19:32	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 19:32	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:32	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:32	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:32	WG966572
Carbon disulfide	0.202	J J	0.101	0.500	1	04/05/2017 19:32	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:32	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:32	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:32	WG966572
Chloroethane	0.769		0.141	0.500	1	04/05/2017 19:32	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:32	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 19:32	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 19:32	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:32	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:32	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:32	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:32	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:32	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:32	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:32	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloroethene	0.743		0.188	0.500	1	04/05/2017 19:32	WG966572
cis-1,2-Dichloroethene	516		0.933	5.00	10	04/06/2017 17:37	WG966572
trans-1,2-Dichloroethene	4.31		0.152	0.500	1	04/05/2017 19:32	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:32	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:32	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:32	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:32	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:32	WG966572
trans-1,4-Dichloro-2-butene	U	JS JO	0.257	5.00	1	04/05/2017 19:32	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:32	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:32	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:32	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:32	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:32	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:32	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:32	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:32	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:32	WG966572
2-Butanone (MEK)	93.1	JS JO JC 4/26/17	1.28	2.50	1	04/05/2017 19:32	WG966572

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



F5-032817

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 03/28/17 10:20

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:32	WG966572
4-Methyl-2-pentanone (MIBK)	0.888	J ↓	0.823	2.50	1	04/05/2017 19:32	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:32	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 19:32	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:32	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 19:32	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:32	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:32	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:32	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:32	WG966572
Toluene	0.727	U BJ	0.412	1.00	1	04/05/2017 19:32	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:32	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:32	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:32	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:32	WG966572
Trichloroethene	0.241	J ↓	0.153	0.500	1	04/05/2017 19:32	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:32	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:32	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:32	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:32	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:32	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:32	WG966572
Vinyl chloride	90.6		0.118	0.500	1	04/05/2017 19:32	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:32	WG966572
(S) Toluene-d8	100			80.0-120		04/05/2017 19:32	WG966572
(S) Toluene-d8	102			80.0-120		04/06/2017 17:37	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 19:32	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 17:37	WG966572
(S) 4-Bromofluorobenzene	92.4			80.0-120		04/05/2017 19:32	WG966572
(S) 4-Bromofluorobenzene	95.9			80.0-120		04/06/2017 17:37	WG966572

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC  
4/26/17



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/05/2017 19:52	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:52	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 19:52	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:52	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:52	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:52	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 19:52	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 19:52	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:52	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:52	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:52	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:52	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:52	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:52	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:52	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 19:52	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:52	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 19:52	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 19:52	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:52	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:52	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:52	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:52	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:52	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:52	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:52	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloroethane	1.88		0.114	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloroethene	0.303	J J	0.188	0.500	1	04/05/2017 19:52	WG966572
cis-1,2-Dichloroethene	18.4		0.0933	0.500	1	04/05/2017 19:52	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:52	WG966572
1,2-Dichloropropane	0.768		0.190	0.500	1	04/05/2017 19:52	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:52	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:52	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:52	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:52	WG966572
trans-1,4-Dichloro-2-butene	U	UJ JO	0.257	5.00	1	04/05/2017 19:52	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:52	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:52	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:52	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:52	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:52	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 19:52	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 19:52	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:52	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:52	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:52	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:52	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:52	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:52	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 19:52	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:52	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 19:52	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:52	WG966572

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

*Handwritten signature and date: 4/26/17*





Collected date/time: 03/28/17 10:40

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:52	WG966572
1,1,2-Trichlorotrifluoroethane	0.417	J ↓	0.164	0.500	1	04/05/2017 19:52	WG966572
Tetrachloroethene	13.9		0.199	0.500	1	04/05/2017 19:52	WG966572
Toluene	0.458	U BJ	0.412	1.00	1	04/05/2017 19:52	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:52	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:52	WG966572
1,1,1-Trichloroethane	0.277	J ↓	0.0940	0.500	1	04/05/2017 19:52	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:52	WG966572
Trichloroethene	5.81		0.153	0.500	1	04/05/2017 19:52	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:52	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:52	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:52	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:52	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:52	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:52	WG966572
Vinyl chloride	0.871		0.118	0.500	1	04/05/2017 19:52	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:52	WG966572
(S) Toluene-d8	101			80.0-120		04/05/2017 19:52	WG966572
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 19:52	WG966572
(S) 4-Bromofluorobenzene	89.9			80.0-120		04/05/2017 19:52	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC  
4/26/17



Collected date/time: 03/28/17 12:00

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/05/2017 20:12	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 20:12	WG966572
Benzene	0.148	J J	0.0896	0.500	1	04/05/2017 20:12	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 20:12	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 20:12	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 20:12	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 20:12	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 20:12	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 20:12	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 20:12	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 20:12	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 20:12	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 20:12	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 20:12	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 20:12	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 20:12	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 20:12	WG966572
Chloroform	0.826		0.0860	0.500	1	04/05/2017 20:12	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 20:12	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 20:12	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 20:12	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 20:12	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 20:12	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 20:12	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 20:12	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 20:12	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 20:12	WG966572
cis-1,2-Dichloroethene	0.283	J J	0.0933	0.500	1	04/05/2017 20:12	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 20:12	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 20:12	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 20:12	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 20:12	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 20:12	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 20:12	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 20:12	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 20:12	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 20:12	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 20:12	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 20:12	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 20:12	WG966572
n-Hexane	0.466	J J	0.305	1.00	1	04/05/2017 20:12	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 20:12	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 20:12	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 20:12	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 20:12	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 20:12	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 20:12	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 20:12	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 20:12	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 20:12	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 20:12	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 20:12	WG966572

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

*Handwritten signature and date: JG 4/26/17*



MW126-032817

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 03/28/17 12:00

L898812

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 20:12	WG966572	Cp
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 20:12	WG966572	Tc
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 20:12	WG966572	Ss
Toluene	0.563	U B J	0.412	1.00	1	04/05/2017 20:12	WG966572	Cn
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 20:12	WG966572	Sr
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 20:12	WG966572	Qc
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 20:12	WG966572	Gl
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 20:12	WG966572	Al
Trichloroethene	U		0.153	0.500	1	04/05/2017 20:12	WG966572	Sc
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 20:12	WG966572	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 20:12	WG966572	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 20:12	WG966572	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 20:12	WG966572	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 20:12	WG966572	
Vinyl acetate	U		0.645	2.50	1	04/05/2017 20:12	WG966572	
Vinyl chloride	U		0.118	0.500	1	04/05/2017 20:12	WG966572	
Xylenes, Total	U		0.316	1.50	1	04/05/2017 20:12	WG966572	
(S) Toluene-d8	100			80.0-120		04/05/2017 20:12	WG966572	
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 20:12	WG966572	
(S) 4-Bromofluorobenzene	90.8			80.0-120		04/05/2017 20:12	WG966572	

*Handwritten signature and date: 4/26/17*





Collected date/time: 03/28/17 12:05

L898812

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.25	125	5	04/05/2017 20:33	WG966572
Acrylonitrile	U		4.36	12.5	5	04/05/2017 20:33	WG966572
Benzene	257		0.448	2.50	5	04/05/2017 20:33	WG966572
Bromobenzene	U		0.665	2.50	5	04/05/2017 20:33	WG966572
Bromodichloromethane	U		0.400	2.50	5	04/05/2017 20:33	WG966572
Bromochloromethane	U		0.725	2.50	5	04/05/2017 20:33	WG966572
Bromoform	U		0.930	2.50	5	04/05/2017 20:33	WG966572
Bromomethane	U		0.785	2.50	5	04/05/2017 20:33	WG966572
n-Butylbenzene	4.61		0.715	2.50	5	04/05/2017 20:33	WG966572
sec-Butylbenzene	3.67		0.670	2.50	5	04/05/2017 20:33	WG966572
tert-Butylbenzene	U		0.915	2.50	5	04/05/2017 20:33	WG966572
Carbon disulfide	U		0.505	2.50	5	04/05/2017 20:33	WG966572
Carbon tetrachloride	U		0.795	2.50	5	04/05/2017 20:33	WG966572
Chlorobenzene	U		0.700	2.50	5	04/05/2017 20:33	WG966572
Chlorodibromomethane	U		0.640	2.50	5	04/05/2017 20:33	WG966572
Chloroethane	U		0.705	2.50	5	04/05/2017 20:33	WG966572
2-Chloroethyl vinyl ether	U		4.38	12.5	5	04/05/2017 20:33	WG966572
Chloroform	20.9		0.430	2.50	5	04/05/2017 20:33	WG966572
Chloromethane	U		0.765	2.50	5	04/05/2017 20:33	WG966572
2-Chlorotoluene	U		0.555	2.50	5	04/05/2017 20:33	WG966572
4-Chlorotoluene	U		0.486	2.50	5	04/05/2017 20:33	WG966572
1,2-Dibromo-3-Chloropropane	U		1.62	5.00	5	04/05/2017 20:33	WG966572
1,2-Dibromoethane	U		0.965	2.50	5	04/05/2017 20:33	WG966572
Dibromomethane	U		0.585	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichlorobenzene	U		0.505	2.50	5	04/05/2017 20:33	WG966572
1,3-Dichlorobenzene	U		0.650	2.50	5	04/05/2017 20:33	WG966572
1,4-Dichlorobenzene	U		0.605	2.50	5	04/05/2017 20:33	WG966572
Dichlorodifluoromethane	U		0.635	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloroethane	U		0.570	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichloroethane	U		0.540	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloroethene	U		0.940	2.50	5	04/05/2017 20:33	WG966572
cis-1,2-Dichloroethene	U		0.466	2.50	5	04/05/2017 20:33	WG966572
trans-1,2-Dichloroethene	U		0.760	2.50	5	04/05/2017 20:33	WG966572
1,2-Dichloropropane	U		0.950	2.50	5	04/05/2017 20:33	WG966572
1,1-Dichloropropene	U		0.640	2.50	5	04/05/2017 20:33	WG966572
1,3-Dichloropropane	U		0.735	2.50	5	04/05/2017 20:33	WG966572
cis-1,3-Dichloropropene	U		0.488	2.50	5	04/05/2017 20:33	WG966572
trans-1,3-Dichloropropene	U		1.11	2.50	5	04/05/2017 20:33	WG966572
trans-1,4-Dichloro-2-butene	U	WS JO	1.28	25.0	5	04/05/2017 20:33	WG966572
2,2-Dichloropropane	U		0.464	2.50	5	04/05/2017 20:33	WG966572
Di-isopropyl ether	U		0.462	2.50	5	04/05/2017 20:33	WG966572
Ethylbenzene	26.5		0.790	2.50	5	04/05/2017 20:33	WG966572
Hexachloro-1,3-butadiene	U		0.785	5.00	5	04/05/2017 20:33	WG966572
2-Hexanone	U		3.78	12.5	5	04/05/2017 20:33	WG966572
n-Hexane	58.6		1.52	5.00	5	04/05/2017 20:33	WG966572
Iodomethane	U		1.88	12.5	5	04/05/2017 20:33	WG966572
Isopropylbenzene	66.9		0.630	2.50	5	04/05/2017 20:33	WG966572
p-Isopropyltoluene	0.915	J J	0.690	2.50	5	04/05/2017 20:33	WG966572
2-Butanone (MEK)	U		6.40	12.5	5	04/05/2017 20:33	WG966572
Methylene Chloride	U		5.35	12.5	5	04/05/2017 20:33	WG966572
4-Methyl-2-pentanone (MIBK)	U		4.12	12.5	5	04/05/2017 20:33	WG966572
Methyl tert-butyl ether	U		0.510	2.50	5	04/05/2017 20:33	WG966572
Naphthalene	3.64		0.870	2.50	5	04/05/2017 20:33	WG966572
n-Propylbenzene	134		0.810	2.50	5	04/05/2017 20:33	WG966572
Styrene	U		0.585	2.50	5	04/05/2017 20:33	WG966572
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	04/05/2017 20:33	WG966572

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- GI
- AI
- Sc

*Handwritten signature and date: 4/26/17*



Collected date/time: 03/28/17 12:05

L898812

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	04/05/2017 20:33	WG966572	Cp
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	04/05/2017 20:33	WG966572	Tc
Tetrachloroethene	U		0.995	2.50	5	04/05/2017 20:33	WG966572	Ss
Toluene	16.3		2.06	5.00	5	04/05/2017 20:33	WG966572	Cn
1,2,3-Trichlorobenzene	U		0.820	2.50	5	04/05/2017 20:33	WG966572	Sr
1,2,4-Trichlorobenzene	U		1.78	2.50	5	04/05/2017 20:33	WG966572	Qc
1,1,1-Trichloroethane	U		0.470	2.50	5	04/05/2017 20:33	WG966572	Gl
1,1,2-Trichloroethane	U		0.930	2.50	5	04/05/2017 20:33	WG966572	Al
Trichloroethene	U		0.765	2.50	5	04/05/2017 20:33	WG966572	Sc
Trichlorofluoromethane	U		0.650	2.50	5	04/05/2017 20:33	WG966572	
1,2,3-Trichloropropane	U		1.24	12.5	5	04/05/2017 20:33	WG966572	
1,2,4-Trimethylbenzene	U		0.615	2.50	5	04/05/2017 20:33	WG966572	
1,2,3-Trimethylbenzene	8.81		0.370	2.50	5	04/05/2017 20:33	WG966572	
1,3,5-Trimethylbenzene	3.51		0.620	2.50	5	04/05/2017 20:33	WG966572	
Vinyl acetate	U		3.22	12.5	5	04/05/2017 20:33	WG966572	
Vinyl chloride	U		0.590	2.50	5	04/05/2017 20:33	WG966572	
Xylenes, Total	33.9		1.58	7.50	5	04/05/2017 20:33	WG966572	
(S) Toluene-d8	101			80.0-120		04/05/2017 20:33	WG966572	
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 20:33	WG966572	
(S) 4-Bromofluorobenzene	90.6			80.0-120		04/05/2017 20:33	WG966572	

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 20:53	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 20:53	WG966572
Benzene	6.74		0.0896	0.500	1	04/05/2017 20:53	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 20:53	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 20:53	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 20:53	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 20:53	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 20:53	WG966572
n-Butylbenzene	7.17		0.143	0.500	1	04/05/2017 20:53	WG966572
sec-Butylbenzene	7.33		0.134	0.500	1	04/05/2017 20:53	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 20:53	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 20:53	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 20:53	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 20:53	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 20:53	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 20:53	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 20:53	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 20:53	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 20:53	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 20:53	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 20:53	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 20:53	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 20:53	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 20:53	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 20:53	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 20:53	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 20:53	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 20:53	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 20:53	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 20:53	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 20:53	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 20:53	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 20:53	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 20:53	WG966572
trans-1,4-Dichloro-2-butene	U	UJ	0.257	5.00	1	04/05/2017 20:53	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 20:53	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 20:53	WG966572
Ethylbenzene	0.598		0.158	0.500	1	04/05/2017 20:53	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 20:53	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 20:53	WG966572
n-Hexane	0.612	J	0.305	1.00	1	04/05/2017 20:53	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 20:53	WG966572
Isopropylbenzene	19.3		0.126	0.500	1	04/05/2017 20:53	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 20:53	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 20:53	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 20:53	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 20:53	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 20:53	WG966572
Naphthalene	2.09		0.174	0.500	1	04/05/2017 20:53	WG966572
n-Propylbenzene	62.7		0.162	0.500	1	04/05/2017 20:53	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 20:53	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 20:53	WG966572

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

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 4/26/17



Collected date/time: 03/28/17 13:02

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 20:53	WG966572	1 Cp
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 20:53	WG966572	2 Tc
Tetrachloroethane	U		0.199	0.500	1	04/05/2017 20:53	WG966572	3 Ss
Toluene	0.624	U BJ	0.412	1.00	1	04/05/2017 20:53	WG966572	4 Cn
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 20:53	WG966572	5 Sr
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 20:53	WG966572	6 Qc
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 20:53	WG966572	7 GI
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 20:53	WG966572	8 AI
Trichloroethene	U		0.153	0.500	1	04/05/2017 20:53	WG966572	9 Sc
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 20:53	WG966572	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 20:53	WG966572	
1,2,4-Trimethylbenzene	4.84		0.123	0.500	1	04/05/2017 20:53	WG966572	
1,2,3-Trimethylbenzene	1.50		0.0739	0.500	1	04/05/2017 20:53	WG966572	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 20:53	WG966572	
Vinyl acetate	U		0.645	2.50	1	04/05/2017 20:53	WG966572	
Vinyl chloride	U		0.118	0.500	1	04/05/2017 20:53	WG966572	
Xylenes, Total	2.08		0.316	1.50	1	04/05/2017 20:53	WG966572	
(S) Toluene-d8	102			80.0-120		04/05/2017 20:53	WG966572	
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 20:53	WG966572	
(S) 4-Bromofluorobenzene	91.3			80.0-120		04/05/2017 20:53	WG966572	

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MW122-032817

SAMPLE RESULTS - 07

ONE LAB. NATIONWIDE.



Collected date/time: 03/28/17 13:40

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.11	J	1.05	25.0	1	04/05/2017 21:13	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 21:13	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 21:13	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 21:13	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 21:13	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 21:13	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 21:13	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 21:13	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 21:13	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 21:13	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 21:13	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 21:13	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 21:13	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 21:13	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 21:13	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 21:13	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 21:13	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 21:13	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 21:13	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 21:13	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 21:13	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 21:13	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 21:13	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 21:13	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 21:13	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 21:13	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 21:13	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 21:13	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 21:13	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 21:13	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 21:13	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 21:13	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 21:13	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 21:13	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 21:13	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 21:13	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 21:13	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 21:13	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 21:13	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 21:13	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 21:13	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 21:13	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 21:13	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 21:13	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 21:13	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 21:13	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 21:13	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 21:13	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 21:13	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 21:13	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 21:13	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 21:13	WG966572

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

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Collected date/time: 03/28/17 13:40

L898812

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 21:13	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 21:13	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 21:13	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 21:13	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 21:13	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 21:13	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 21:13	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 21:13	WG966572
Trichloroethene	U		0.153	0.500	1	04/05/2017 21:13	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 21:13	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 21:13	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 21:13	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 21:13	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 21:13	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 21:13	WG966572
Vinyl chloride	U		0.118	0.500	1	04/05/2017 21:13	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 21:13	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 21:13	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 21:13	WG966572
(S) 4-Bromofluorobenzene	92.1			80.0-120		04/05/2017 21:13	WG966572

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

JC  
4/26/17



Collected date/time: 03/28/17 14:30

L898812

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	577000		2710	20000	1	03/29/2017 13:30	WG965169

1 Cd

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	22100		51.9	1000	1	03/29/2017 15:47	WG965193
Nitrate	U		22.7	100	1	03/29/2017 15:47	WG965193
Sulfate	106000		1550	100000	20	03/29/2017 16:02	WG965193

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	7320		102	1000	1	04/03/2017 15:10	WG966368

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	19700		15.0	100	1	04/04/2017 12:54	WG965287
Manganese	2270	V	0.250	5.00	1	04/04/2017 12:54	WG965287

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	1740		2.87	6.78	10	04/04/2017 15:06	WG967102
Ethane	36.4		0.296	1.29	1	04/03/2017 20:48	WG966793
Ethene	2.20		0.422	1.27	1	04/03/2017 20:48	WG966793

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.40	J	1.05	25.0	1	04/05/2017 21:33	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 21:33	WG966572
Benzene	1.59		0.0896	0.500	1	04/05/2017 21:33	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 21:33	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 21:33	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 21:33	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 21:33	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 21:33	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 21:33	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 21:33	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 21:33	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 21:33	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 21:33	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 21:33	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 21:33	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 21:33	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 21:33	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 21:33	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 21:33	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 21:33	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 21:33	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 21:33	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 21:33	WG966572

*Je*  
4/26/17



MW108-032817

SAMPLE RESULTS - 08

ONE LAB. NATIONWIDE



Collected date/time: 03/28/17 14:30

L898812

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Dibromomethane	U		0.117	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 21:33	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 21:33	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloroethene	0.588		0.188	0.500	1	04/05/2017 21:33	WG966572
cis-1,2-Dichloroethene	278		0.466	2.50	5	04/06/2017 17:50	WG966572
trans-1,2-Dichloroethene	0.899		0.152	0.500	1	04/05/2017 21:33	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 21:33	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 21:33	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 21:33	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 21:33	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 21:33	WG966572
trans-1,4-Dichloro-2-butene	U	US JO	0.257	5.00	1	04/05/2017 21:33	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 21:33	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 21:33	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 21:33	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 21:33	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 21:33	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 21:33	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 21:33	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 21:33	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 21:33	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 21:33	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 21:33	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 21:33	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 21:33	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 21:33	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 21:33	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 21:33	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 21:33	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 21:33	WG966572
Tetrachloroethene	73.1		0.199	0.500	1	04/05/2017 21:33	WG966572
Toluene	0.479	u BJ	0.412	1.00	1	04/05/2017 21:33	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 21:33	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 21:33	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 21:33	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 21:33	WG966572
Trichloroethene	12.5		0.153	0.500	1	04/05/2017 21:33	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 21:33	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 21:33	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 21:33	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 21:33	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 21:33	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 21:33	WG966572
Vinyl chloride	52.3		0.118	0.500	1	04/05/2017 21:33	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 21:33	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 21:33	WG966572
(S) Toluene-d8	104			80.0-120		04/06/2017 17:50	WG966572
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 21:33	WG966572
(S) Dibromofluoromethane	109			76.0-123		04/06/2017 17:50	WG966572
(S) 4-Bromofluorobenzene	89.6			80.0-120		04/05/2017 21:33	WG966572
(S) 4-Bromofluorobenzene	97.9			80.0-120		04/06/2017 17:50	WG966572

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

AC  
4/26/17

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L899176  
Samples Received: 03/30/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:

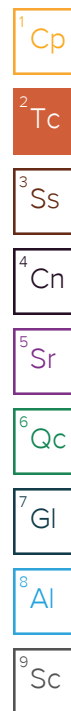


Brian Ford  
Technical Service Representative

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.



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# SAMPLE SUMMARY



## MW130-032917 L899176-01 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 09:55      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965753	1	03/30/17 15:01	03/30/17 15:01	AMC
Wet Chemistry by Method 9056A	WG965688	1	03/30/17 15:33	03/30/17 15:33	SAM
Wet Chemistry by Method 9060A	WG966665	1	04/04/17 16:07	04/04/17 16:07	SJM
Metals (ICPMS) by Method 6020	WG966238	1	04/05/17 10:13	04/07/17 16:36	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966455	5	04/05/17 08:49	04/05/17 08:49	JAH
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 02:20	04/04/17 02:20	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	20	04/05/17 21:53	04/05/17 21:53	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	200	04/06/17 18:03	04/06/17 18:03	JHH

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW128-032917 L899176-02 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 10:00      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965753	1	03/30/17 15:17	03/30/17 15:17	AMC
Wet Chemistry by Method 9056A	WG965688	1	03/30/17 15:51	03/30/17 15:51	SAM
Wet Chemistry by Method 9060A	WG966665	1	04/04/17 16:20	04/04/17 16:20	SJM
Metals (ICPMS) by Method 6020	WG966238	1	04/05/17 10:13	04/07/17 15:21	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 02:37	04/04/17 02:37	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG967102	50	04/04/17 16:30	04/04/17 16:30	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 22:14	04/05/17 22:14	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/06/17 18:16	04/06/17 18:16	JHH

## MW124-032917 L899176-03 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 12:05      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 22:34	04/05/17 22:34	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/06/17 18:28	04/06/17 18:28	JHH

## MW109-032917 L899176-04 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 12:00      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965753	1	03/30/17 15:23	03/30/17 15:23	AMC
Wet Chemistry by Method 9056A	WG965688	1	03/30/17 16:28	03/30/17 16:28	SAM
Wet Chemistry by Method 9060A	WG966665	1	04/04/17 16:39	04/04/17 16:39	SJM
Metals (ICPMS) by Method 6020	WG966238	1	04/05/17 10:13	04/07/17 15:24	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 04:00	04/04/17 04:00	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG967102	10	04/04/17 16:46	04/04/17 16:46	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 22:55	04/05/17 22:55	LRL

## MW119-032917 L899176-05 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 13:55      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG965753	1	03/30/17 15:30	03/30/17 15:30	AMC
Wet Chemistry by Method 9056A	WG965688	1	03/30/17 17:05	03/30/17 17:05	SAM
Wet Chemistry by Method 9060A	WG966665	1	04/04/17 16:55	04/04/17 16:55	SJM
Metals (ICPMS) by Method 6020	WG966238	1	04/05/17 10:13	04/07/17 15:35	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 04:17	04/04/17 04:17	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG967102	10	04/04/17 17:03	04/04/17 17:03	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 23:15	04/05/17 23:15	LRL

# SAMPLE SUMMARY



## MW102-032917 L899176-06 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 14:10      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 23:36	04/05/17 23:36	LRL

1  
Cp

2  
Tc

3  
Ss

## MW301-032917 L899176-07 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 14:50      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 23:56	04/05/17 23:56	LRL

4  
Cn

5  
Sr

## TRIP BLANK L899176-08 GW

Collected by  
C. DeBoer      Collected date/time  
03/29/17 00:00      Received date/time  
03/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG966455	1	04/05/17 01:08	04/05/17 01:08	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG966572	1	04/05/17 17:10	04/05/17 17:10	LRL

6  
Qc

7  
Gl

8  
Al

9  
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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	276000		2710	20000	1	03/30/2017 15:01	<a href="#">WG965753</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	100000		51.9	1000	1	03/30/2017 15:33	<a href="#">WG965688</a>
Nitrate	U		22.7	100	1	03/30/2017 15:33	<a href="#">WG965688</a>
Sulfate	7070		77.4	5000	1	03/30/2017 15:33	<a href="#">WG965688</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10700		102	1000	1	04/04/2017 16:07	<a href="#">WG966665</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1190		15.0	100	1	04/07/2017 16:36	<a href="#">WG966238</a>
Manganese	555		0.250	5.00	1	04/07/2017 16:36	<a href="#">WG966238</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	8890		158	500	5	04/05/2017 08:49	<a href="#">WG966455</a>
(S) a,a,a-Trifluorotoluene(FID) 109				77.0-122		04/05/2017 08:49	<a href="#">WG966455</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	619		0.287	0.678	1	04/04/2017 02:20	<a href="#">WG966794</a>
Ethane	1.62		0.296	1.29	1	04/04/2017 02:20	<a href="#">WG966794</a>
Ethene	30.0		0.422	1.27	1	04/04/2017 02:20	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	23.7	J	21.0	500	20	04/05/2017 21:53	<a href="#">WG966572</a>
Acrylonitrile	U		17.5	50.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Benzene	U		1.79	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromobenzene	U		2.66	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromodichloromethane	U		1.60	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromochloromethane	U		2.90	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromoform	U		3.72	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromomethane	U		3.14	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
n-Butylbenzene	U		2.86	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
sec-Butylbenzene	U		2.68	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
tert-Butylbenzene	U		3.66	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Carbon disulfide	U		2.02	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Carbon tetrachloride	U		3.18	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chlorobenzene	U		2.80	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chlorodibromomethane	U		2.56	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chloroethane	U		2.82	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>



Collected date/time: 03/29/17 09:55

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		17.5	50.0	20	04/05/2017 21:53	WG966572
Chloroform	U		1.72	10.0	20	04/05/2017 21:53	WG966572
Chloromethane	U		3.06	10.0	20	04/05/2017 21:53	WG966572
2-Chlorotoluene	U		2.22	10.0	20	04/05/2017 21:53	WG966572
4-Chlorotoluene	U		1.94	10.0	20	04/05/2017 21:53	WG966572
1,2-Dibromo-3-Chloropropane	U		6.50	20.0	20	04/05/2017 21:53	WG966572
1,2-Dibromoethane	U		3.86	10.0	20	04/05/2017 21:53	WG966572
Dibromomethane	U		2.34	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichlorobenzene	U		2.02	10.0	20	04/05/2017 21:53	WG966572
1,3-Dichlorobenzene	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,4-Dichlorobenzene	U		2.42	10.0	20	04/05/2017 21:53	WG966572
Dichlorodifluoromethane	U		2.54	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloroethane	U		2.28	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichloroethane	U		2.16	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloroethene	102		3.76	10.0	20	04/05/2017 21:53	WG966572
cis-1,2-Dichloroethene	7880		18.7	100	200	04/06/2017 18:03	WG966572
trans-1,2-Dichloroethene	39.3		3.04	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichloropropane	U		3.80	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloropropene	U		2.56	10.0	20	04/05/2017 21:53	WG966572
1,3-Dichloropropane	U		2.94	10.0	20	04/05/2017 21:53	WG966572
cis-1,3-Dichloropropene	U		1.95	10.0	20	04/05/2017 21:53	WG966572
trans-1,3-Dichloropropene	U		4.44	10.0	20	04/05/2017 21:53	WG966572
trans-1,4-Dichloro-2-butene	U	JO	5.14	100	20	04/05/2017 21:53	WG966572
2,2-Dichloropropane	U		1.86	10.0	20	04/05/2017 21:53	WG966572
Di-isopropyl ether	U		1.85	10.0	20	04/05/2017 21:53	WG966572
Ethylbenzene	U		3.16	10.0	20	04/05/2017 21:53	WG966572
Hexachloro-1,3-butadiene	U		3.14	20.0	20	04/05/2017 21:53	WG966572
2-Hexanone	U		15.1	50.0	20	04/05/2017 21:53	WG966572
n-Hexane	U		6.10	20.0	20	04/05/2017 21:53	WG966572
Iodomethane	U		7.54	50.0	20	04/05/2017 21:53	WG966572
Isopropylbenzene	U		2.52	10.0	20	04/05/2017 21:53	WG966572
p-Isopropyltoluene	U		2.76	10.0	20	04/05/2017 21:53	WG966572
2-Butanone (MEK)	U		25.6	50.0	20	04/05/2017 21:53	WG966572
Methylene Chloride	U		21.4	50.0	20	04/05/2017 21:53	WG966572
4-Methyl-2-pentanone (MIBK)	U		16.5	50.0	20	04/05/2017 21:53	WG966572
Methyl tert-butyl ether	U		2.04	10.0	20	04/05/2017 21:53	WG966572
Naphthalene	U		3.48	10.0	20	04/05/2017 21:53	WG966572
n-Propylbenzene	U		3.24	10.0	20	04/05/2017 21:53	WG966572
Styrene	U		2.34	10.0	20	04/05/2017 21:53	WG966572
1,1,1,2-Tetrachloroethane	U		2.40	10.0	20	04/05/2017 21:53	WG966572
1,1,2,2-Tetrachloroethane	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,1,2-Trichlorotrifluoroethane	U		3.28	10.0	20	04/05/2017 21:53	WG966572
Tetrachloroethene	721		39.8	100	200	04/06/2017 18:03	WG966572
Toluene	U		8.24	20.0	20	04/05/2017 21:53	WG966572
1,2,3-Trichlorobenzene	U		3.28	10.0	20	04/05/2017 21:53	WG966572
1,2,4-Trichlorobenzene	U		7.10	10.0	20	04/05/2017 21:53	WG966572
1,1,1-Trichloroethane	U		1.88	10.0	20	04/05/2017 21:53	WG966572
1,1,2-Trichloroethane	U		3.72	10.0	20	04/05/2017 21:53	WG966572
Trichloroethene	830		30.6	100	200	04/06/2017 18:03	WG966572
Trichlorofluoromethane	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,2,3-Trichloropropane	U		4.94	50.0	20	04/05/2017 21:53	WG966572
1,2,4-Trimethylbenzene	U		2.46	10.0	20	04/05/2017 21:53	WG966572
1,2,3-Trimethylbenzene	U		1.48	10.0	20	04/05/2017 21:53	WG966572
1,3,5-Trimethylbenzene	U		2.48	10.0	20	04/05/2017 21:53	WG966572
Vinyl acetate	U		12.9	50.0	20	04/05/2017 21:53	WG966572
Vinyl chloride	186		2.36	10.0	20	04/05/2017 21:53	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Xylenes, Total	U		6.32	30.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 21:53	<a href="#">WG966572</a>
(S) Toluene-d8	103			80.0-120		04/06/2017 18:03	<a href="#">WG966572</a>
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 21:53	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/06/2017 18:03	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	91.6			80.0-120		04/05/2017 21:53	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	97.3			80.0-120		04/06/2017 18:03	<a href="#">WG966572</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	387000		2710	20000	1	03/30/2017 15:17	<a href="#">WG965753</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	15900		51.9	1000	1	03/30/2017 15:51	<a href="#">WG965688</a>
Nitrate	U		22.7	100	1	03/30/2017 15:51	<a href="#">WG965688</a>
Sulfate	U		77.4	5000	1	03/30/2017 15:51	<a href="#">WG965688</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4840		102	1000	1	04/04/2017 16:20	<a href="#">WG966665</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	10500		15.0	100	1	04/07/2017 15:21	<a href="#">WG966238</a>
Manganese	227		0.250	5.00	1	04/07/2017 15:21	<a href="#">WG966238</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	12600		14.4	33.9	50	04/04/2017 16:30	<a href="#">WG967102</a>
Ethane	13.2		0.296	1.29	1	04/04/2017 02:37	<a href="#">WG966794</a>
Ethene	64.8		0.422	1.27	1	04/04/2017 02:37	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 22:14	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:14	<a href="#">WG966572</a>
Benzene	U		0.0896	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	04/05/2017 22:14	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/29/17 10:00

L899176

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:14	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:14	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:14	WG966572
cis-1,2-Dichloroethene	7.16		0.0933	0.500	1	04/06/2017 18:16	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:14	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:14	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:14	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:14	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 22:14	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:14	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 22:14	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:14	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:14	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:14	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:14	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:14	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:14	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:14	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:14	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:14	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:14	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:14	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:14	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:14	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:14	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:14	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:14	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/06/2017 18:16	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 22:14	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:14	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:14	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:14	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:14	WG966572
Trichloroethene	U		0.153	0.500	1	04/06/2017 18:16	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:14	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:14	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:14	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:14	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:14	WG966572
Vinyl chloride	72.4		0.118	0.500	1	04/05/2017 22:14	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:14	WG966572
(S) Toluene-d8	99.9			80.0-120		04/05/2017 22:14	WG966572
(S) Toluene-d8	103			80.0-120		04/06/2017 18:16	WG966572
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 22:14	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:16	WG966572
(S) 4-Bromofluorobenzene	89.0			80.0-120		04/05/2017 22:14	WG966572
(S) 4-Bromofluorobenzene	96.4			80.0-120		04/06/2017 18:16	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.35	J	1.05	25.0	1	04/05/2017 22:34	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:34	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 22:34	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:34	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:34	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:34	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 22:34	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 22:34	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:34	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:34	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:34	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:34	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:34	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:34	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:34	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 22:34	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:34	WG966572
Chloroform	1.37		0.0860	0.500	1	04/05/2017 22:34	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 22:34	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:34	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:34	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 22:34	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:34	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:34	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:34	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:34	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:34	WG966572
cis-1,2-Dichloroethene	0.661		0.0933	0.500	1	04/06/2017 18:28	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:34	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:34	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:34	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:34	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 22:34	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:34	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 22:34	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:34	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:34	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:34	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:34	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:34	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:34	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:34	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:34	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:34	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:34	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:34	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:34	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:34	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:34	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:34	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Tetrachloroethene	1.60		0.199	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Toluene	0.785	<u>BJ</u>	0.412	1.00	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Trichloroethene	0.596		0.153	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:34	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 22:34	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:34	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 22:34	<a href="#">WG966572</a>
(S) Toluene-d8	104			80.0-120		04/06/2017 18:28	<a href="#">WG966572</a>
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:28	<a href="#">WG966572</a>
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 22:34	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	91.2			80.0-120		04/05/2017 22:34	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	98.0			80.0-120		04/06/2017 18:28	<a href="#">WG966572</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	498000		2710	20000	1	03/30/2017 15:23	<a href="#">WG965753</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	6900		51.9	1000	1	03/30/2017 16:28	<a href="#">WG965688</a>
Nitrate	25.5	J	22.7	100	1	03/30/2017 16:28	<a href="#">WG965688</a>
Sulfate	31400		77.4	5000	1	03/30/2017 16:28	<a href="#">WG965688</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10800		102	1000	1	04/04/2017 16:39	<a href="#">WG966665</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	12000		15.0	100	1	04/07/2017 15:24	<a href="#">WG966238</a>
Manganese	3010		0.250	5.00	1	04/07/2017 15:24	<a href="#">WG966238</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2000		2.87	6.78	10	04/04/2017 16:46	<a href="#">WG967102</a>
Ethane	7.21		0.296	1.29	1	04/04/2017 04:00	<a href="#">WG966794</a>
Ethene	U		0.422	1.27	1	04/04/2017 04:00	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 22:55	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:55	<a href="#">WG966572</a>
Benzene	U		0.0896	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	04/05/2017 22:55	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:55	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:55	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:55	WG966572
cis-1,2-Dichloroethene	12.6		0.0933	0.500	1	04/05/2017 22:55	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:55	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:55	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:55	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:55	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 22:55	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:55	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 22:55	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:55	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:55	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:55	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:55	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:55	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:55	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:55	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:55	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:55	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:55	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:55	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:55	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:55	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:55	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:55	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:55	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 22:55	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 22:55	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:55	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:55	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:55	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:55	WG966572
Trichloroethene	0.198	J	0.153	0.500	1	04/05/2017 22:55	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:55	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:55	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:55	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:55	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:55	WG966572
Vinyl chloride	3.49		0.118	0.500	1	04/05/2017 22:55	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:55	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 22:55	WG966572
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 22:55	WG966572
(S) 4-Bromofluorobenzene	90.8			80.0-120		04/05/2017 22:55	WG966572

- 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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	255000		2710	20000	1	03/30/2017 15:30	<a href="#">WG965753</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20500		51.9	1000	1	03/30/2017 17:05	<a href="#">WG965688</a>
Nitrate	164		22.7	100	1	03/30/2017 17:05	<a href="#">WG965688</a>
Sulfate	14900		77.4	5000	1	03/30/2017 17:05	<a href="#">WG965688</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6840		102	1000	1	04/04/2017 16:55	<a href="#">WG966665</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	17100		15.0	100	1	04/07/2017 15:35	<a href="#">WG966238</a>
Manganese	2980		0.250	5.00	1	04/07/2017 15:35	<a href="#">WG966238</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	819		2.87	6.78	10	04/04/2017 17:03	<a href="#">WG967102</a>
Ethane	U		0.296	1.29	1	04/04/2017 04:17	<a href="#">WG966794</a>
Ethene	U		0.422	1.27	1	04/04/2017 04:17	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.28	J	1.05	25.0	1	04/05/2017 23:15	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:15	<a href="#">WG966572</a>
Benzene	0.139	J	0.0896	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:15	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	04/05/2017 23:15	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:15	<a href="#">WG966572</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/29/17 13:55

L899176

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:15	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:15	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:15	WG966572
cis-1,2-Dichloroethene	42.9		0.0933	0.500	1	04/05/2017 23:15	WG966572
trans-1,2-Dichloroethene	0.334	J	0.152	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:15	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:15	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:15	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:15	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 23:15	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:15	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:15	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:15	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:15	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:15	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:15	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:15	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:15	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:15	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:15	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:15	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:15	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:15	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:15	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:15	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:15	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:15	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:15	WG966572
Tetrachloroethene	5.47		0.199	0.500	1	04/05/2017 23:15	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 23:15	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:15	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:15	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:15	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:15	WG966572
Trichloroethene	10.7		0.153	0.500	1	04/05/2017 23:15	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:15	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:15	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:15	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:15	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:15	WG966572
Vinyl chloride	0.272	J	0.118	0.500	1	04/05/2017 23:15	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:15	WG966572
(S) Toluene-d8	101			80.0-120		04/05/2017 23:15	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 23:15	WG966572
(S) 4-Bromofluorobenzene	88.5			80.0-120		04/05/2017 23:15	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.36	J	1.05	25.0	1	04/05/2017 23:36	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:36	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 23:36	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:36	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:36	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:36	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 23:36	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 23:36	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:36	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:36	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:36	WG966572
Carbon disulfide	0.161	J	0.101	0.500	1	04/05/2017 23:36	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:36	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:36	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:36	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 23:36	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:36	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 23:36	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 23:36	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:36	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:36	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 23:36	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:36	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:36	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:36	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:36	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:36	WG966572
cis-1,2-Dichloroethene	0.223	J	0.0933	0.500	1	04/05/2017 23:36	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:36	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:36	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:36	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:36	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 23:36	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:36	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:36	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:36	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:36	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:36	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:36	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:36	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:36	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:36	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:36	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:36	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:36	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:36	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:36	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:36	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:36	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:36	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Toluene	U		0.412	1.00	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:36	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 23:36	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:36	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 23:36	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 23:36	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	92.4			80.0-120		04/05/2017 23:36	<a href="#">WG966572</a>

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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.21	J	1.05	25.0	1	04/05/2017 23:56	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:56	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 23:56	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:56	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:56	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:56	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 23:56	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 23:56	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:56	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:56	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:56	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 23:56	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:56	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:56	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:56	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 23:56	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:56	WG966572
Chloroform	1.30		0.0860	0.500	1	04/05/2017 23:56	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 23:56	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:56	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:56	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 23:56	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:56	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:56	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:56	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:56	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:56	WG966572
cis-1,2-Dichloroethene	0.600		0.0933	0.500	1	04/05/2017 23:56	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:56	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:56	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:56	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:56	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 23:56	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:56	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:56	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:56	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:56	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:56	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:56	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:56	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:56	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:56	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:56	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:56	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:56	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:56	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:56	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:56	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:56	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:56	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Tetrachloroethene	1.22		0.199	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Toluene	0.675	<u>B J</u>	0.412	1.00	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Trichloroethene	0.433	<u>J</u>	0.153	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:56	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 23:56	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:56	<a href="#">WG966572</a>
(S) Toluene-d8	102			80.0-120		04/05/2017 23:56	<a href="#">WG966572</a>
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 23:56	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	90.3			80.0-120		04/05/2017 23:56	<a href="#">WG966572</a>

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



Collected date/time: 03/29/17 00:00

L899176

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/05/2017 01:08	WG966455
(S) a,a,a-Trifluorotoluene(FID) 102				77.0-122		04/05/2017 01:08	WG966455

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	04/05/2017 17:10	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 17:10	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 17:10	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 17:10	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 17:10	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 17:10	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 17:10	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 17:10	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 17:10	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 17:10	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 17:10	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 17:10	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 17:10	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 17:10	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 17:10	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 17:10	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 17:10	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 17:10	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 17:10	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 17:10	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 17:10	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 17:10	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 17:10	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 17:10	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 17:10	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 17:10	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 17:10	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 17:10	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 17:10	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 17:10	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 17:10	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 17:10	WG966572
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	04/05/2017 17:10	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 17:10	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 17:10	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 17:10	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 17:10	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 17:10	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 17:10	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 17:10	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 17:10	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 17:10	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 17:10	WG966572



Collected date/time: 03/29/17 00:00

L899176

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	04/05/2017 17:10	<a href="#">WG966572</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 17:10	<a href="#">WG966572</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Naphthalene	0.279	J	0.174	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Styrene	U		0.117	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Toluene	U		0.412	1.00	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 17:10	<a href="#">WG966572</a>
Vinyl chloride	U		0.118	0.500	1	04/05/2017 17:10	<a href="#">WG966572</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 17:10	<a href="#">WG966572</a>
(S) Toluene-d8	101			80.0-120		04/05/2017 17:10	<a href="#">WG966572</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 17:10	<a href="#">WG966572</a>
(S) 4-Bromofluorobenzene	91.5			80.0-120		04/05/2017 17:10	<a href="#">WG966572</a>

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





Method Blank (MB)

(MB) R3207223-2 03/30/17 14:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3070	J	2710	20000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

L899176-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899176-01 03/30/17 15:01 • (DUP) R3207223-4 03/30/17 15:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	276000	281000	1	2.00		20

<sup>4</sup> Cn

<sup>5</sup> Sr

L899203-12 Original Sample (OS) • Duplicate (DUP)

(OS) L899203-12 03/30/17 17:58 • (DUP) R3207223-7 03/30/17 18:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	116000	118000	1	2.00		20

<sup>6</sup> Qc

<sup>7</sup> Gl

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

(LCS) R3207223-5 03/30/17 16:18 • (LCSD) R3207223-6 03/30/17 17:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	88600	90100	89.0	90.0	85.0-115			2.00	20

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3207248-1 03/30/17 10:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

<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

L899168-03 Original Sample (OS) • Duplicate (DUP)

(OS) L899168-03 03/30/17 13:06 • (DUP) R3207248-4 03/30/17 13:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	79500	80200	1	1		15
Nitrate	2080	2150	1	3		15
Sulfate	82000	80500	1	2		15

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

(LCS) R3207248-2 03/30/17 11:01 • (LCSD) R3207248-3 03/30/17 11:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39500	39400	99	99	80-120			0	15
Nitrate	8000	8170	8190	102	102	80-120			0	15
Sulfate	40000	40100	39900	100	100	80-120			0	15

L899168-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L899168-04 03/30/17 13:42 • (MS) R3207248-5 03/30/17 14:01

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	12400	60500	96	1	80-120	
Nitrate	5000	668	5580	98	1	80-120	
Sulfate	50000	6980	58900	104	1	80-120	



Method Blank (MB)

(MB) R3208217-1 04/04/17 08:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899068-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899068-01 04/04/17 10:11 • (DUP) R3208217-3 04/04/17 10:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	10700	10800	1	1		20

L899255-05 Original Sample (OS) • Duplicate (DUP)

(OS) L899255-05 04/04/17 17:59 • (DUP) R3208217-7 04/04/17 18:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	5690	5660	1	1		20

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

(LCS) R3208217-2 04/04/17 09:21 • (LCSD) R3208217-4 04/04/17 11:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71300	71600	95	95	85-115			0	20

L899157-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899157-02 04/04/17 10:58 • (MS) R3208217-5 04/04/17 12:25 • (MSD) R3208217-6 04/04/17 12:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	417	48500	47400	96	94	1	80-120			2	20



Method Blank (MB)

(MB) R3209215-1 04/07/17 11:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	0.263	J	0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3209215-2 04/07/17 11:07 • (LCSD) R3209215-3 04/07/17 11:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5420	5330	108	107	80-120			2	20
Manganese	50.0	52.4	52.2	105	104	80-120			0	20

5 Sr

6 Qc

L899122-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899122-01 04/07/17 11:15 • (MS) R3209215-5 04/07/17 11:21 • (MSD) R3209215-6 04/07/17 11:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	28200	34400	33900	124	113	1	75-125			2	20
Manganese	50.0	2070	2170	2160	189	180	1	75-125	V	V	0	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3208800-3 04/05/17 00:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID) 102				77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3208800-1 04/04/17 22:58 • (LCSD) R3208800-2 04/04/17 23:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	6480	6340	118	115	72.0-134			2.27	20
(S) a,a,a-Trifluorotoluene(FID)				104	104	77.0-122				

5 Sr

6 Qc

7 Gl

L898920-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L898920-02 04/05/17 02:53 • (MS) R3208800-4 04/05/17 01:50 • (MSD) R3208800-5 04/05/17 02:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	ND	2230	2360	40.6	42.9	1	23.0-159			5.59	20
(S) a,a,a-Trifluorotoluene(FID)					104	104		77.0-122				

8 Al

9 Sc





Method Blank (MB)

(MB) R3208061-1 04/04/17 00:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899438-01 04/04/17 03:10 • (DUP) R3208061-2 04/04/17 03:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	8.93	1	3.50	J	20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L899439-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899439-01 04/04/17 03:44 • (DUP) R3208061-3 04/04/17 06:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3208061-4 04/04/17 07:04 • (LCSD) R3208061-5 04/04/17 07:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.0	68.4	103	101	70.0-130			2.30	20
Ethane	129	125	123	97.0	95.0	70.0-130			2.06	20
Ethene	127	123	120	96.8	94.6	70.0-130			2.33	20



Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	1740	1840	1	5.65		20

L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

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

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	69.6	68.8	103	101	70.0-130			1.12	20



Method Blank (MB)

(MB) R3208545-3 04/05/17 14:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3208545-3 04/05/17 14:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U	U	0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	106			76.0-123
(S) 4-Bromofluorobenzene	92.8			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) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	126	124	101	99.2	10.0-160			1.53	23
Acrylonitrile	125	152	147	122	118	60.0-142			3.35	20
Benzene	25.0	25.9	25.2	104	101	69.0-123			2.70	20
Bromobenzene	25.0	21.8	21.9	87.4	87.6	79.0-120			0.240	20
Bromodichloromethane	25.0	24.8	24.7	99.2	98.7	76.0-120			0.550	20
Bromochloromethane	25.0	26.4	26.3	105	105	76.0-122			0.180	20
Bromoform	25.0	18.8	18.7	75.1	74.6	67.0-132			0.600	20
Bromomethane	25.0	29.5	29.2	118	117	18.0-160			0.960	20
n-Butylbenzene	25.0	25.8	24.7	103	98.6	72.0-126			4.54	20
sec-Butylbenzene	25.0	22.4	22.3	89.7	89.4	74.0-121			0.310	20
tert-Butylbenzene	25.0	20.5	20.3	81.9	81.3	75.0-122			0.710	20
Carbon disulfide	25.0	28.5	27.7	114	111	55.0-127			2.72	20
Carbon tetrachloride	25.0	22.5	21.6	89.8	86.4	63.0-122			3.84	20
Chlorobenzene	25.0	23.0	23.0	92.0	92.1	79.0-121			0.0700	20
Chlorodibromomethane	25.0	23.6	23.0	94.6	92.0	75.0-125			2.69	20
Chloroethane	25.0	28.3	27.9	113	112	47.0-152			1.40	20
2-Chloroethyl vinyl ether	125	137	131	110	105	10.0-160			4.57	22
Chloroform	25.0	27.3	26.7	109	107	72.0-121			2.13	20
Chloromethane	25.0	24.6	24.3	98.3	97.0	48.0-139			1.30	20
2-Chlorotoluene	25.0	22.8	22.7	91.3	90.9	74.0-122			0.430	20
4-Chlorotoluene	25.0	22.4	22.6	89.6	90.3	79.0-120			0.750	20
1,2-Dibromo-3-Chloropropane	25.0	23.8	22.8	95.3	91.3	64.0-127			4.30	20
1,2-Dibromoethane	25.0	23.2	22.7	93.0	90.8	77.0-123			2.30	20
Dibromomethane	25.0	22.6	22.2	90.5	88.7	78.0-120			1.98	20
1,2-Dichlorobenzene	25.0	23.8	23.5	95.4	93.9	80.0-120			1.54	20
1,3-Dichlorobenzene	25.0	20.5	20.9	81.9	83.7	72.0-123			2.10	20
1,4-Dichlorobenzene	25.0	23.5	22.8	94.0	91.2	77.0-120			3.06	20
Dichlorodifluoromethane	25.0	24.3	22.9	97.1	91.7	49.0-155			5.71	20
1,1-Dichloroethane	25.0	28.7	28.1	115	112	70.0-126			2.02	20
1,2-Dichloroethane	25.0	25.1	25.4	101	101	67.0-126			0.910	20
1,1-Dichloroethene	25.0	28.5	27.5	114	110	64.0-129			3.71	20
cis-1,2-Dichloroethene	25.0	28.3	27.7	113	111	73.0-120			1.94	20
trans-1,2-Dichloroethene	25.0	27.9	27.2	112	109	71.0-121			2.40	20
1,2-Dichloropropane	25.0	27.4	26.8	110	107	75.0-125			2.30	20
1,1-Dichloropropene	25.0	29.3	28.1	117	113	71.0-129			4.15	20
1,3-Dichloropropane	25.0	24.8	24.6	99.2	98.5	80.0-121			0.710	20
cis-1,3-Dichloropropene	25.0	28.2	27.8	113	111	79.0-123			1.40	20
trans-1,3-Dichloropropene	25.0	25.5	25.0	102	100	74.0-127			2.01	20
trans-1,4-Dichloro-2-butene	25.0	20.9	19.9	83.6	79.5	55.0-134			5.03	20
2,2-Dichloropropane	25.0	27.6	27.1	111	108	60.0-125			2.10	20

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) R3208545-1 04/05/17 13:41 • (LCSD) R3208545-2 04/05/17 14:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	26.9	26.8	108	107	59.0-133			0.460	20
Ethylbenzene	25.0	21.0	20.5	84.0	82.1	77.0-120			2.33	20
Hexachloro-1,3-butadiene	25.0	23.6	22.3	94.6	89.3	64.0-131			5.68	20
2-Hexanone	125	127	124	102	98.9	58.0-147			3.01	20
n-Hexane	25.0	24.9	23.7	99.5	94.7	56.0-124			4.95	20
Iodomethane	125	128	126	103	101	57.0-140			1.49	20
Isopropylbenzene	25.0	20.4	20.2	81.4	80.8	75.0-120			0.760	20
p-Isopropyltoluene	25.0	23.3	23.0	93.0	91.9	74.0-126			1.15	20
2-Butanone (MEK)	125	149	143	120	114	37.0-158			4.70	20
Methylene Chloride	25.0	27.2	26.9	109	108	66.0-121			0.980	20
4-Methyl-2-pentanone (MIBK)	125	144	140	115	112	59.0-143			2.70	20
Methyl tert-butyl ether	25.0	28.6	28.6	114	114	64.0-123			0.0300	20
Naphthalene	25.0	21.6	21.3	86.3	85.3	62.0-128			1.22	20
n-Propylbenzene	25.0	20.6	20.4	82.5	81.5	79.0-120			1.23	20
Styrene	25.0	21.1	20.9	84.5	83.7	78.0-124			1.00	20
1,1,1,2-Tetrachloroethane	25.0	22.5	22.7	90.0	90.9	75.0-122			1.07	20
1,1,2,2-Tetrachloroethane	25.0	22.9	22.6	91.5	90.6	71.0-122			1.02	20
1,1,2-Trichlorotrifluoroethane	25.0	26.0	25.2	104	101	61.0-136			2.88	20
Tetrachloroethene	25.0	21.8	21.6	87.3	86.4	70.0-127			1.06	20
Toluene	25.0	22.5	21.6	89.9	86.3	77.0-120			4.10	20
1,2,3-Trichlorobenzene	25.0	24.7	24.6	98.8	98.2	61.0-133			0.620	20
1,2,4-Trichlorobenzene	25.0	23.8	23.3	95.2	93.1	69.0-129			2.30	20
1,1,1-Trichloroethane	25.0	27.1	26.6	108	106	68.0-122			1.70	20
1,1,2-Trichloroethane	25.0	23.5	23.3	94.0	93.0	78.0-120			1.03	20
Trichloroethene	25.0	24.8	24.3	99.3	97.2	78.0-120			2.18	20
Trichlorofluoromethane	25.0	27.6	26.8	111	107	56.0-137			2.85	20
1,2,3-Trichloropropane	25.0	23.3	23.3	93.4	93.3	72.0-124			0.0400	20
1,2,4-Trimethylbenzene	25.0	22.5	22.6	89.8	90.3	75.0-120			0.540	20
1,2,3-Trimethylbenzene	25.0	23.3	22.4	93.1	89.6	75.0-120			3.78	20
1,3,5-Trimethylbenzene	25.0	22.6	22.6	90.5	90.5	75.0-120			0.0100	20
Vinyl acetate	125	131	125	105	99.8	46.0-160			5.24	20
Vinyl chloride	25.0	27.0	26.4	108	106	64.0-133			2.01	20
Xylenes, Total	75.0	62.1	61.4	82.8	81.9	77.0-120			1.13	20
(S) Toluene-d8				103	102	80.0-120				
(S) Dibromofluoromethane				108	107	76.0-123				
(S) 4-Bromofluorobenzene				88.8	91.7	80.0-120				

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



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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
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		

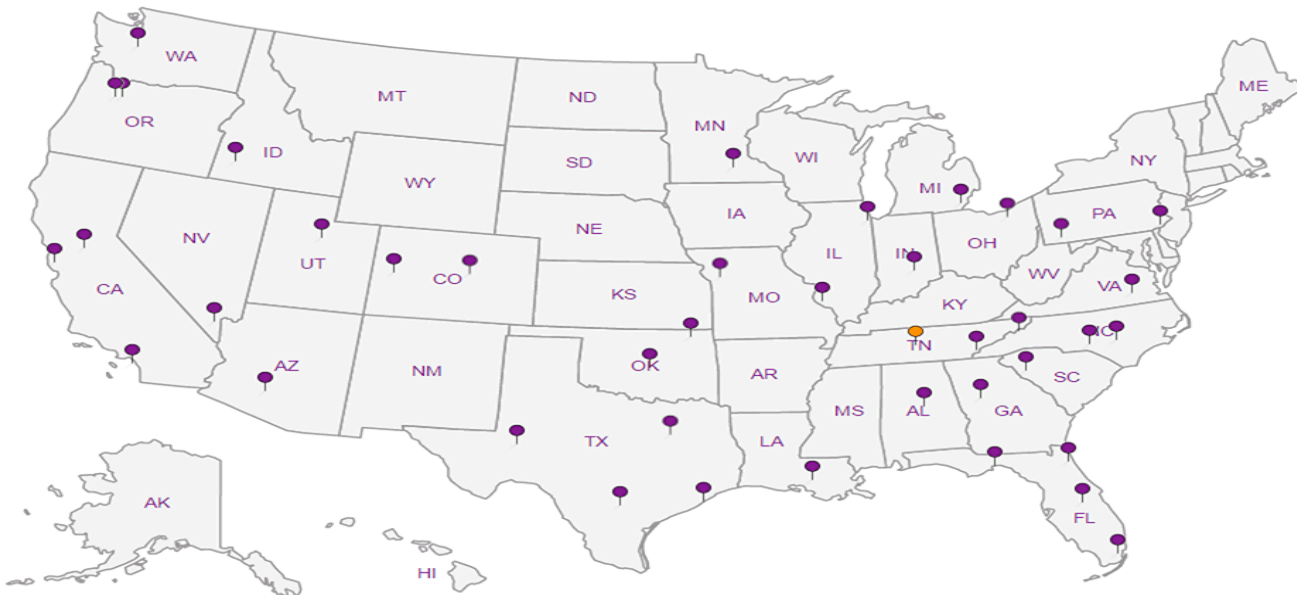
## Third Party & Federal Accreditations

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.**



<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

**PES Environmental, Inc. - WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:  
Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: bhdaldeman@pesenv.com

Project Description: **American Linen Supply**

City/State Collected:

Phone: 206-529-3980  
Fax: 206-529-3985

Client Project #  
1413.001.02.002

Lab Project #  
PESENVSWA-141300102

Collected by (print):  
*C. DeBor*

Site/Facility ID #  
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):  
*Chris DeBor*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
Date Results Needed

Immediately Packed on Ice N  Y

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



YOUR LAB OF CHOICE

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



L# **L899176**  
**1081**

Acctnum: **PESENVSWA**

Template: **T121414**

Prelogin: **P592684**

TSR: **110 - Brian Ford**

PB: **3-13-176**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO3,Cl,SO4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
MW130-032917	Grab	GW	75	3/29/17	955	11	X	X	X	X	X	X		-01
MW128-032917	GRAB	GW	65	3/29/17	1000	9	X	X	X	X	X	X		02
MW124-032917	Grab	GW	120	3/29/17	1205	4	X	X	X	X	X	X		03
MW109-032917	GRAB	GW	30	3/29/17	1200	9	X	X	X	X	X	X		04
MW119-032917	GRAB	GW	40	3/29/17	1355	9	X	X	X	X	X	X		05
MW102-032917	Grab	GW	120	3/29/17	1410	4	X	X	X	X	X	X		06
MW301-032917	Grab	GW	120	3/29/17	1450	4	X	X	X	X	X	X		07
TRIP BLANK		GW				1	X	X	X	X	X	X		08
		GW												
		GW												

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

Remarks: \*Nitrate has a 48 hour hold time

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

**Sample Receipt Checklist**  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Samples returned via:  
 UPS  FedEx  Courier

Tracking # \_\_\_\_\_  
 Trip Blank Received:  Yes  No  
 H<sub>2</sub>O / MeOH  
 TBR

Relinquished by: (Signature) <i>Chris DeBor</i>	Date: 3/29/17	Time: 1500	Received by: (Signature)	Temp: °C 21°	Bottles Received: 701 50	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 3-30-17	Time: 845	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	

Hold: \_\_\_\_\_ Condition: NCF / OK

## MEMORANDUM

**TO:** Project File **DATE:** April 21, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 27, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L899176

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Seven (7) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 29, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L899176. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L899176 is summarized below.



## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within the method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for trans-1,4-dichloro-2-butene was identified by the laboratory for all samples associated with analytical batch **WG966572** (analyzed on April 5, 2017). The trans-1,4-dichloro-2-butene results are qualified by the laboratory "J0" to indicate that percent difference for trans-1,4-dichloro-2-butene CCV is outside of laboratory acceptance criteria. **Associated sample results for trans-1,4-dichloro-2-butene are non-detected and estimated (UJ).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussions:

- A low level toluene detection was reported in the method blank (Batch WG966572). Detection is less than the RDL but greater than the method detection limit (MDL). Low level toluene detections are reported in samples MW124-032917 and MW301-032917. **Toluene results in associated samples MW124-032917 and MW301-032917 are qualified as non-detect (U) due to blank contamination.**

*NWTPH-Gx Method:*

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) is not detected in the method blank at or above the RDL.

*Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL.

*USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was detected in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

### **Trip Blank Results**

#### *USEPA Method 8260C (VOCs) and NWTPH-Gx:*

A trip blank was collected and submitted for analysis. One VOC compound, naphthalene, was detected in the trip blank at a low level between the MDL and RDL. No action was taken since naphthalene is not detected in the associated samples.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

#### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

#### *NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

#### *Method RSK-175:*

Laboratory duplicate sample analyses were performed within each analytical batch on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

#### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

#### *General Chemistry:*

*SM 2320B:* Laboratory duplicate sample analyses were performed on sample MW130-032917 and on a non-client sample within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* A laboratory duplicate sample was analyzed on a non-client sample within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

*USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

*NWTPH-Gx Method:*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

*USEPA Method 8260C (VOCs):*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

*NWTPH-Gx Method:*

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %R and RPD for the control analyte (gasoline) is within the laboratory control criteria for water.

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for the analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

### **Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*NWTPH-Gx Method:*

Matrix spike analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for gasoline are within the laboratory control criteria for water.

*Method RSK-175:*

Matrix spike analysis was not performed on the dissolved gases samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a non-client sample within the analytical batch.. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussion:

- MS/MSD recoveries for manganese are slightly above acceptance criteria. No action was taken since the sample amount is greater than four times the spike amount. Refer to LCS/LCSD results for additional information.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

**Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

**Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.



## **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	276000		2710	20000	1	03/30/2017 15:01	<a href="#">WG965753</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	100000		51.9	1000	1	03/30/2017 15:33	<a href="#">WG965688</a>
Nitrate	U		22.7	100	1	03/30/2017 15:33	<a href="#">WG965688</a>
Sulfate	7070		77.4	5000	1	03/30/2017 15:33	<a href="#">WG965688</a>

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10700		102	1000	1	04/04/2017 16:07	<a href="#">WG966665</a>

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1190		15.0	100	1	04/07/2017 16:36	<a href="#">WG966238</a>
Manganese	555		0.250	5.00	1	04/07/2017 16:36	<a href="#">WG966238</a>

Al

Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	8890		158	500	5	04/05/2017 08:49	<a href="#">WG966455</a>
(S) a,a,a-Trifluorotoluene(FID) 109				77.0-122		04/05/2017 08:49	<a href="#">WG966455</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	619		0.287	0.678	1	04/04/2017 02:20	<a href="#">WG966794</a>
Ethane	1.62		0.296	1.29	1	04/04/2017 02:20	<a href="#">WG966794</a>
Ethene	30.0		0.422	1.27	1	04/04/2017 02:20	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	23.7	J J	21.0	500	20	04/05/2017 21:53	<a href="#">WG966572</a>
Acrylonitrile	U		17.5	50.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Benzene	U		1.79	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromobenzene	U		2.66	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromodichloromethane	U		1.60	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromochloromethane	U		2.90	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromoform	U		3.72	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Bromomethane	U		3.14	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
n-Butylbenzene	U		2.86	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
sec-Butylbenzene	U		2.68	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
tert-Butylbenzene	U		3.66	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Carbon disulfide	U		2.02	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Carbon tetrachloride	U		3.18	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chlorobenzene	U		2.80	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chlorodibromomethane	U		2.56	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>
Chloroethane	U		2.82	10.0	20	04/05/2017 21:53	<a href="#">WG966572</a>

Dec 4/25/17





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		17.5	50.0	20	04/05/2017 21:53	WG966572
Chloroform	U		1.72	10.0	20	04/05/2017 21:53	WG966572
Chloromethane	U		3.06	10.0	20	04/05/2017 21:53	WG966572
2-Chlorotoluene	U		2.22	10.0	20	04/05/2017 21:53	WG966572
4-Chlorotoluene	U		1.94	10.0	20	04/05/2017 21:53	WG966572
1,2-Dibromo-3-Chloropropane	U		6.50	20.0	20	04/05/2017 21:53	WG966572
1,2-Dibromoethane	U		3.86	10.0	20	04/05/2017 21:53	WG966572
Dibromomethane	U		2.34	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichlorobenzene	U		2.02	10.0	20	04/05/2017 21:53	WG966572
1,3-Dichlorobenzene	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,4-Dichlorobenzene	U		2.42	10.0	20	04/05/2017 21:53	WG966572
Dichlorodifluoromethane	U		2.54	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloroethane	U		2.28	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichloroethane	U		2.16	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloroethene	102		3.76	10.0	20	04/05/2017 21:53	WG966572
cis-1,2-Dichloroethene	7880		18.7	100	200	04/06/2017 18:03	WG966572
trans-1,2-Dichloroethene	39.3		3.04	10.0	20	04/05/2017 21:53	WG966572
1,2-Dichloropropane	U		3.80	10.0	20	04/05/2017 21:53	WG966572
1,1-Dichloropropene	U		2.56	10.0	20	04/05/2017 21:53	WG966572
1,3-Dichloropropane	U		2.94	10.0	20	04/05/2017 21:53	WG966572
cis-1,3-Dichloropropene	U		1.95	10.0	20	04/05/2017 21:53	WG966572
trans-1,3-Dichloropropene	U		4.44	10.0	20	04/05/2017 21:53	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	5.14	100	20	04/05/2017 21:53	WG966572
2,2-Dichloropropane	U		1.86	10.0	20	04/05/2017 21:53	WG966572
Di-isopropyl ether	U		1.85	10.0	20	04/05/2017 21:53	WG966572
Ethylbenzene	U		3.16	10.0	20	04/05/2017 21:53	WG966572
Hexachloro-1,3-butadiene	U		3.14	20.0	20	04/05/2017 21:53	WG966572
2-Hexanone	U		15.1	50.0	20	04/05/2017 21:53	WG966572
n-Hexane	U		6.10	20.0	20	04/05/2017 21:53	WG966572
Iodomethane	U		7.54	50.0	20	04/05/2017 21:53	WG966572
Isopropylbenzene	U		2.52	10.0	20	04/05/2017 21:53	WG966572
p-Isopropyltoluene	U		2.76	10.0	20	04/05/2017 21:53	WG966572
2-Butanone (MEK)	U		25.6	50.0	20	04/05/2017 21:53	WG966572
Methylene Chloride	U		21.4	50.0	20	04/05/2017 21:53	WG966572
4-Methyl-2-pentanone (MIBK)	U		16.5	50.0	20	04/05/2017 21:53	WG966572
Methyl tert-butyl ether	U		2.04	10.0	20	04/05/2017 21:53	WG966572
Naphthalene	U		3.48	10.0	20	04/05/2017 21:53	WG966572
n-Propylbenzene	U		3.24	10.0	20	04/05/2017 21:53	WG966572
Styrene	U		2.34	10.0	20	04/05/2017 21:53	WG966572
1,1,1,2-Tetrachloroethane	U		2.40	10.0	20	04/05/2017 21:53	WG966572
1,1,2,2-Tetrachloroethane	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,1,2-Trichlorotrifluoroethane	U		3.28	10.0	20	04/05/2017 21:53	WG966572
Tetrachloroethene	721		39.8	100	200	04/06/2017 18:03	WG966572
Toluene	U		8.24	20.0	20	04/05/2017 21:53	WG966572
1,2,3-Trichlorobenzene	U		3.28	10.0	20	04/05/2017 21:53	WG966572
1,2,4-Trichlorobenzene	U		7.10	10.0	20	04/05/2017 21:53	WG966572
1,1,1-Trichloroethane	U		1.88	10.0	20	04/05/2017 21:53	WG966572
1,1,2-Trichloroethane	U		3.72	10.0	20	04/05/2017 21:53	WG966572
Trichloroethene	830		30.6	100	200	04/06/2017 18:03	WG966572
Trichlorofluoromethane	U		2.60	10.0	20	04/05/2017 21:53	WG966572
1,2,3-Trichloropropane	U		4.94	50.0	20	04/05/2017 21:53	WG966572
1,2,4-Trimethylbenzene	U		2.46	10.0	20	04/05/2017 21:53	WG966572
1,2,3-Trimethylbenzene	U		1.48	10.0	20	04/05/2017 21:53	WG966572
1,3,5-Trimethylbenzene	U		2.48	10.0	20	04/05/2017 21:53	WG966572
Vinyl acetate	U		12.9	50.0	20	04/05/2017 21:53	WG966572
Vinyl chloride	186		2.36	10.0	20	04/05/2017 21:53	WG966572

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

JK 4/25/17



Collected date/time: 03/29/17 09:55

L899176

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Xylenes, Total	U		6.32	30.0	20	04/05/2017 21:53	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 21:53	WG966572
(S) Toluene-d8	103			80.0-120		04/06/2017 18:03	WG966572
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 21:53	WG966572
(S) Dibromofluoromethane	106			76.0-123		04/06/2017 18:03	WG966572
(S) 4-Bromofluorobenzene	91.6			80.0-120		04/05/2017 21:53	WG966572
(S) 4-Bromofluorobenzene	97.3			80.0-120		04/06/2017 18:03	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

*JC*  
9/25/17





Collected date/time: 03/29/17 10:00

L899176

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	387000		2710	20000	1	03/30/2017 15:17	<a href="#">WG965753</a>



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	15900		51.9	1000	1	03/30/2017 15:51	<a href="#">WG965688</a>
Nitrate	U		22.7	100	1	03/30/2017 15:51	<a href="#">WG965688</a>
Sulfate	U		77.4	5000	1	03/30/2017 15:51	<a href="#">WG965688</a>



Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	4840		102	1000	1	04/04/2017 16:20	<a href="#">WG966665</a>



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	10500		15.0	100	1	04/07/2017 15:21	<a href="#">WG966238</a>
Manganese	227		0.250	5.00	1	04/07/2017 15:21	<a href="#">WG966238</a>



Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	12600		14.4	33.9	50	04/04/2017 16:30	<a href="#">WG967102</a>
Ethane	13.2		0.296	1.29	1	04/04/2017 02:37	<a href="#">WG966794</a>
Ethene	64.8		0.422	1.27	1	04/04/2017 02:37	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/05/2017 22:14	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:14	<a href="#">WG966572</a>
Benzene	U		0.0896	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 22:14	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:14	<a href="#">WG966572</a>

*Handwritten signature and date: Jc 4/25/17*



MW128-032917

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 03/29/17 10:00

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:14	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:14	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:14	WG966572
cis-1,2-Dichloroethene	7.16		0.0933	0.500	1	04/06/2017 18:16	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:14	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:14	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:14	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:14	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:14	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:14	WG966572
trans-1,4-Dichloro-2-butene	U	UJ JO	0.257	5.00	1	04/05/2017 22:14	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:14	WG966572
Diisopropyl ether	U		0.0924	0.500	1	04/05/2017 22:14	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:14	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:14	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:14	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:14	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:14	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:14	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:14	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:14	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:14	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:14	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:14	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:14	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:14	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:14	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:14	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:14	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/06/2017 18:16	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 22:14	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:14	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:14	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:14	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:14	WG966572
Trichloroethene	U		0.153	0.500	1	04/06/2017 18:16	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:14	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:14	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:14	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:14	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:14	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:14	WG966572
Vinyl chloride	72.4		0.118	0.500	1	04/05/2017 22:14	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:14	WG966572
(S) Toluene-d8	99.9			80.0-120		04/05/2017 22:14	WG966572
(S) Toluene-d8	103			80.0-120		04/06/2017 18:16	WG966572
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 22:14	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:16	WG966572
(S) 4-Bromofluorobenzene	89.0			80.0-120		04/05/2017 22:14	WG966572
(S) 4-Bromofluorobenzene	96.4			80.0-120		04/06/2017 18:16	WG966572

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

9c  
4/25/17





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.35	J J	1.05	25.0	1	04/05/2017 22:34	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:34	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 22:34	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:34	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:34	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:34	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 22:34	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 22:34	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:34	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:34	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:34	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:34	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:34	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:34	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:34	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 22:34	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:34	WG966572
Chloroform	1.37		0.0860	0.500	1	04/05/2017 22:34	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 22:34	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:34	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:34	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 22:34	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:34	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:34	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:34	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:34	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:34	WG966572
cis-1,2-Dichloroethene	0.661		0.0933	0.500	1	04/06/2017 18:28	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:34	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:34	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:34	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:34	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:34	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:34	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 22:34	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:34	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 22:34	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:34	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:34	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:34	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:34	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:34	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:34	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:34	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:34	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:34	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:34	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:34	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:34	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:34	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:34	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:34	WG966572

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

9/2  
9/25/17



Collected date/time: 03/29/17 12:05

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:34	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:34	WG966572
Tetrachloroethene	160		0.199	0.500	1	04/05/2017 22:34	WG966572
Toluene	0.785	U BJ	0.412	1.00	1	04/05/2017 22:34	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:34	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:34	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:34	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:34	WG966572
Trichloroethene	0.596		0.153	0.500	1	04/05/2017 22:34	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:34	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:34	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:34	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:34	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:34	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:34	WG966572
Vinyl chloride	U		0.118	0.500	1	04/05/2017 22:34	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:34	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 22:34	WG966572
(S) Toluene-d8	104			80.0-120		04/06/2017 18:28	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:28	WG966572
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 22:34	WG966572
(S) 4-Bromofluorobenzene	91.2			80.0-120		04/05/2017 22:34	WG966572
(S) 4-Bromofluorobenzene	98.0			80.0-120		04/06/2017 18:28	WG966572

CP

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JK  
4/25/17





Collected date/time: 03/29/17 12:00

L899176

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	498000		2710	20000	1	03/30/2017 15:23	<a href="#">WG965753</a>



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	6900		51.9	1000	1	03/30/2017 16:28	<a href="#">WG965688</a>
Nitrate	25.5	J ↓	22.7	100	1	03/30/2017 16:28	<a href="#">WG965688</a>
Sulfate	31400		77.4	5000	1	03/30/2017 16:28	<a href="#">WG965688</a>



Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10800		102	1000	1	04/04/2017 16:39	<a href="#">WG966665</a>



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	12000		15.0	100	1	04/07/2017 15:24	<a href="#">WG966238</a>
Manganese	3010		0.250	5.00	1	04/07/2017 15:24	<a href="#">WG966238</a>



Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	2000		2.87	6.78	10	04/04/2017 16:46	<a href="#">WG967102</a>
Ethane	7.21		0.296	1.29	1	04/04/2017 04:00	<a href="#">WG966794</a>
Ethene	U		0.422	1.27	1	04/04/2017 04:00	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/05/2017 22:55	<a href="#">WG966572</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 22:55	<a href="#">WG966572</a>
Benzene	U		0.0896	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromoform	U		0.186	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 22:55	<a href="#">WG966572</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 22:55	<a href="#">WG966572</a>

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Collected date/time: 03/29/17 12:00

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 22:55	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 22:55	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 22:55	WG966572
cis-1,2-Dichloroethene	12.6		0.0933	0.500	1	04/05/2017 22:55	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 22:55	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 22:55	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 22:55	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 22:55	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 22:55	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 22:55	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 22:55	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 22:55	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 22:55	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 22:55	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 22:55	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 22:55	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 22:55	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 22:55	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 22:55	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 22:55	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 22:55	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 22:55	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 22:55	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 22:55	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 22:55	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 22:55	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 22:55	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 22:55	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 22:55	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 22:55	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 22:55	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 22:55	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 22:55	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 22:55	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 22:55	WG966572
Trichloroethene	0.198	J J	0.153	0.500	1	04/05/2017 22:55	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 22:55	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 22:55	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 22:55	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 22:55	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 22:55	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 22:55	WG966572
Vinyl chloride	3.49		0.118	0.500	1	04/05/2017 22:55	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 22:55	WG966572
(S) Toluene-d8	102			80.0-120		04/05/2017 22:55	WG966572
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 22:55	WG966572
(S) 4-Bromofluorobenzene	90.8			80.0-120		04/05/2017 22:55	WG966572

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

9c  
4/25/17





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	255000		2710	20000	1	03/30/2017 15:30	WG965753

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	20500		51.9	1000	1	03/30/2017 17:05	WG965688
Nitrate	164		22.7	100	1	03/30/2017 17:05	WG965688
Sulfate	14900		77.4	5000	1	03/30/2017 17:05	WG965688

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	6840		102	1000	1	04/04/2017 16:55	WG966665

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	17100		15.0	100	1	04/07/2017 15:35	WG966238
Manganese	2980		0.250	5.00	1	04/07/2017 15:35	WG966238

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	819		2.87	6.78	10	04/04/2017 17:03	WG967102
Ethane	U		0.296	1.29	1	04/04/2017 04:17	WG966794
Ethene	U		0.422	1.27	1	04/04/2017 04:17	WG966794

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.28	J ↓	1.05	25.0	1	04/05/2017 23:15	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:15	WG966572
Benzene	0.139	J ↓	0.0896	0.500	1	04/05/2017 23:15	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:15	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:15	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:15	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 23:15	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 23:15	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:15	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:15	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:15	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 23:15	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:15	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:15	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:15	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 23:15	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:15	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 23:15	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 23:15	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:15	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:15	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 23:15	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:15	WG966572

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:15	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:15	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:15	WG966572
cis-1,2-Dichloroethene	42.9		0.0933	0.500	1	04/05/2017 23:15	WG966572
trans-1,2-Dichloroethene	0.334	J J	0.152	0.500	1	04/05/2017 23:15	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:15	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:15	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:15	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:15	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:15	WG966572
trans-1,4-Dichloro-2-butene	U	VS JO	0.257	5.00	1	04/05/2017 23:15	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:15	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:15	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:15	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:15	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:15	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:15	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:15	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:15	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:15	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:15	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:15	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:15	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:15	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:15	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:15	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:15	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:15	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:15	WG966572
Tetrachloroethene	5.47		0.199	0.500	1	04/05/2017 23:15	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 23:15	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:15	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:15	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:15	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:15	WG966572
Trichloroethene	10.7		0.153	0.500	1	04/05/2017 23:15	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:15	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:15	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:15	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:15	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:15	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:15	WG966572
Vinyl chloride	0.272	J J	0.118	0.500	1	04/05/2017 23:15	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:15	WG966572
(S) Toluene-d8	101			80.0-120		04/05/2017 23:15	WG966572
(S) Dibromofluoromethane	107			76.0-123		04/05/2017 23:15	WG966572
(S) 4-Bromofluorobenzene	88.5			80.0-120		04/05/2017 23:15	WG966572

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

*Handwritten signature and date: Jc 4/25/17*





Collected date/time: 03/29/17 14:10

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.36	J J	1.05	25.0	1	04/05/2017 23:36	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:36	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 23:36	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:36	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:36	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:36	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 23:36	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 23:36	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:36	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:36	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:36	WG966572
Carbon disulfide	0.161	J J	0.101	0.500	1	04/05/2017 23:36	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:36	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:36	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:36	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 23:36	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:36	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 23:36	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 23:36	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:36	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:36	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 23:36	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:36	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:36	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:36	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:36	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:36	WG966572
cis-1,2-Dichloroethene	0.223	J J	0.0933	0.500	1	04/05/2017 23:36	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 23:36	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:36	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:36	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:36	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:36	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:36	WG966572
trans-1,4-Dichloro-2-butene	U	J J	0.257	5.00	1	04/05/2017 23:36	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:36	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:36	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:36	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:36	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:36	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:36	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:36	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:36	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:36	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:36	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:36	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:36	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:36	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:36	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:36	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:36	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:36	WG966572

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

AC 4/25/17

MW102-032917

SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 03/29/17 14:10

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:36	WG966572	Cp
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:36	WG966572	Tc
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 23:36	WG966572	Ss
Toluene	U		0.412	1.00	1	04/05/2017 23:36	WG966572	Cn
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:36	WG966572	Sr
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:36	WG966572	Qc
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:36	WG966572	Gl
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:36	WG966572	Al
Trichloroethene	U		0.153	0.500	1	04/05/2017 23:36	WG966572	Sc
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:36	WG966572	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:36	WG966572	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:36	WG966572	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:36	WG966572	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:36	WG966572	
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:36	WG966572	
Vinyl chloride	U		0.118	0.500	1	04/05/2017 23:36	WG966572	
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:36	WG966572	
(S) Toluene-d8	102			80.0-120		04/05/2017 23:36	WG966572	
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 23:36	WG966572	
(S) 4-Bromofluorobenzene	92.4			80.0-120		04/05/2017 23:36	WG966572	

*Handwritten signature and date: Jc 4/25/17*





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.21	J J	1.05	25.0	1	04/05/2017 23:56	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 23:56	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 23:56	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 23:56	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 23:56	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 23:56	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 23:56	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 23:56	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 23:56	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 23:56	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 23:56	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 23:56	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 23:56	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 23:56	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 23:56	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 23:56	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 23:56	WG966572
Chloroform	1.30		0.0860	0.500	1	04/05/2017 23:56	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 23:56	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 23:56	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 23:56	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 23:56	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 23:56	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 23:56	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 23:56	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 23:56	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 23:56	WG966572
cis-1,2-Dichloroethene	0.600		0.0933	0.500	1	04/05/2017 23:56	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 23:56	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 23:56	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 23:56	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 23:56	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 23:56	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 23:56	WG966572
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	04/05/2017 23:56	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 23:56	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 23:56	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 23:56	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 23:56	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 23:56	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 23:56	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 23:56	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 23:56	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 23:56	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 23:56	WG966572
Methylene Chloride	U		1.07	2.50	1	04/05/2017 23:56	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 23:56	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 23:56	WG966572
Naphthalene	U		0.174	0.500	1	04/05/2017 23:56	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 23:56	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 23:56	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 23:56	WG966572

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

4/25/17



MW301-032917

SAMPLE RESULTS - 07

ONE LAB. NATIONWIDE.



Collected date/time: 03/29/17 14:50

L899176

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 23:56	WG966572	<sup>1</sup> Cp
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 23:56	WG966572	<sup>2</sup> Tc
Tetrachloroethene	1.22		0.199	0.500	1	04/05/2017 23:56	WG966572	<sup>3</sup> Ss
Toluene	0.675	U BJ	0.412	1.00	1	04/05/2017 23:56	WG966572	<sup>4</sup> Cn
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 23:56	WG966572	<sup>5</sup> Sr
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 23:56	WG966572	<sup>6</sup> Qc
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 23:56	WG966572	<sup>7</sup> Gl
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 23:56	WG966572	<sup>8</sup> Al
Trichloroethene	0.433	J J	0.153	0.500	1	04/05/2017 23:56	WG966572	<sup>9</sup> Sc
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 23:56	WG966572	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 23:56	WG966572	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 23:56	WG966572	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 23:56	WG966572	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 23:56	WG966572	
Vinyl acetate	U		0.645	2.50	1	04/05/2017 23:56	WG966572	
Vinyl chloride	U		0.118	0.500	1	04/05/2017 23:56	WG966572	
Xylenes, Total	U		0.316	1.50	1	04/05/2017 23:56	WG966572	
(S) Toluene-d8	102			80.0-120		04/05/2017 23:56	WG966572	
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 23:56	WG966572	
(S) 4-Bromofluorobenzene	90.3			80.0-120		04/05/2017 23:56	WG966572	

*Handwritten signature and date: 4/25/17*

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Collected date/time: 03/29/17 00:00

SAMPLE RESULTS - 08

L899176

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/05/2017 01:08	WG966455
(S) a,a,a-Trifluorotoluene(FID) 102				77.0-122		04/05/2017 01:08	WG966455

Cp

Tc

Ss

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	04/05/2017 17:10	WG966572
Acrylonitrile	U		0.873	2.50	1	04/05/2017 17:10	WG966572
Benzene	U		0.0896	0.500	1	04/05/2017 17:10	WG966572
Bromobenzene	U		0.133	0.500	1	04/05/2017 17:10	WG966572
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 17:10	WG966572
Bromochloromethane	U		0.145	0.500	1	04/05/2017 17:10	WG966572
Bromoform	U		0.186	0.500	1	04/05/2017 17:10	WG966572
Bromomethane	U		0.157	0.500	1	04/05/2017 17:10	WG966572
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 17:10	WG966572
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 17:10	WG966572
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 17:10	WG966572
Carbon disulfide	U		0.101	0.500	1	04/05/2017 17:10	WG966572
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 17:10	WG966572
Chlorobenzene	U		0.140	0.500	1	04/05/2017 17:10	WG966572
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 17:10	WG966572
Chloroethane	U		0.141	0.500	1	04/05/2017 17:10	WG966572
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 17:10	WG966572
Chloroform	U		0.0860	0.500	1	04/05/2017 17:10	WG966572
Chloromethane	U		0.153	0.500	1	04/05/2017 17:10	WG966572
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 17:10	WG966572
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 17:10	WG966572
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 17:10	WG966572
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 17:10	WG966572
Dibromomethane	U		0.117	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 17:10	WG966572
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 17:10	WG966572
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 17:10	WG966572
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 17:10	WG966572
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 17:10	WG966572
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 17:10	WG966572
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 17:10	WG966572
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 17:10	WG966572
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 17:10	WG966572
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 17:10	WG966572
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 17:10	WG966572
trans-1,4-Dichloro-2-butene	U	NS JO	0.257	5.00	1	04/05/2017 17:10	WG966572
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 17:10	WG966572
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 17:10	WG966572
Ethylbenzene	U		0.158	0.500	1	04/05/2017 17:10	WG966572
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 17:10	WG966572
2-Hexanone	U		0.757	2.50	1	04/05/2017 17:10	WG966572
n-Hexane	U		0.305	1.00	1	04/05/2017 17:10	WG966572
Iodomethane	U		0.377	2.50	1	04/05/2017 17:10	WG966572
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 17:10	WG966572
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 17:10	WG966572
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 17:10	WG966572

Cn

Sr

Qc

GI

AI

Sc

JK  
4/25/17



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SAMPLE RESULTS - 08

ONE LAB. NATIONWIDE.



Collected date/time: 03/29/17 00:00

L899176

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	04/05/2017 17:10	WG966572
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 17:10	WG966572
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 17:10	WG966572
Naphthalene	0.279	J J	0.174	0.500	1	04/05/2017 17:10	WG966572
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 17:10	WG966572
Styrene	U		0.117	0.500	1	04/05/2017 17:10	WG966572
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 17:10	WG966572
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 17:10	WG966572
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 17:10	WG966572
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 17:10	WG966572
Toluene	U		0.412	1.00	1	04/05/2017 17:10	WG966572
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 17:10	WG966572
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 17:10	WG966572
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 17:10	WG966572
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 17:10	WG966572
Trichloroethene	U		0.153	0.500	1	04/05/2017 17:10	WG966572
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 17:10	WG966572
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 17:10	WG966572
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 17:10	WG966572
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 17:10	WG966572
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 17:10	WG966572
Vinyl acetate	U		0.645	2.50	1	04/05/2017 17:10	WG966572
Vinyl chloride	U		0.118	0.500	1	04/05/2017 17:10	WG966572
Xylenes, Total	U		0.316	1.50	1	04/05/2017 17:10	WG966572
(S) Toluene-d8	101			80.0-120		04/05/2017 17:10	WG966572
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 17:10	WG966572
(S) 4-Bromofluorobenzene	91.5			80.0-120		04/05/2017 17:10	WG966572

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

AC 4/25/17

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L899472  
Samples Received: 03/31/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



## MW214-033017 L899472-01 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 08:46

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 18:05	04/05/17 18:05	LRL

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW104-033017 L899472-02 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 10:10

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG966192	1	04/01/17 13:07	04/01/17 13:07	AMC
Wet Chemistry by Method 9056A	WG966056	1	04/01/17 09:18	04/01/17 09:18	KCF
Wet Chemistry by Method 9060A	WG967101	1	04/05/17 19:14	04/05/17 19:14	SJM
Metals (ICPMS) by Method 6020	WG966260	1	04/05/17 08:06	04/05/17 18:06	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 05:24	04/04/17 05:24	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 18:25	04/05/17 18:25	LRL

## SMW-3-033017 L899472-03 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 10:20

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 18:45	04/05/17 18:45	LRL

## N7-033017 L899472-04 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 12:34

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG966192	1	04/01/17 13:15	04/01/17 13:15	AMC
Wet Chemistry by Method 9056A	WG966056	1	04/01/17 11:42	04/01/17 11:42	KCF
Wet Chemistry by Method 9060A	WG967101	1	04/05/17 19:32	04/05/17 19:32	SJM
Metals (ICPMS) by Method 6020	WG966260	1	04/05/17 08:06	04/05/17 18:09	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 05:40	04/04/17 05:40	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG967102	40	04/04/17 17:19	04/04/17 17:19	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 19:05	04/05/17 19:05	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	5	04/06/17 18:41	04/06/17 18:41	JHH

## W-MW-01-033017 L899472-05 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 12:30

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG966192	1	04/01/17 13:22	04/01/17 13:22	AMC
Wet Chemistry by Method 9056A	WG966372	1	04/01/17 09:11	04/01/17 09:11	KCF
Wet Chemistry by Method 9060A	WG967101	1	04/05/17 20:00	04/05/17 20:00	SJM
Metals (ICPMS) by Method 6020	WG966260	1	04/05/17 08:06	04/05/17 18:13	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG966794	1	04/04/17 06:14	04/04/17 06:14	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 19:24	04/05/17 19:24	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/06/17 18:54	04/06/17 18:54	JHH

## MW302-033017 L899472-06 GW

Collected by  
Shannon McKernan

Collected date/time  
03/30/17 15:00

Received date/time  
03/31/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG967289	1	04/05/17 19:45	04/05/17 19:45	LRL



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.

Brian Ford  
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



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.75	<u>B J J3</u>	1.05	25.0	1	04/05/2017 18:05	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Bromoform	U	<u>JO</u>	0.186	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Dibromomethane	U		0.117	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 18:05	<a href="#">WG967289</a>
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Ethylbenzene	U		0.158	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 18:05	<a href="#">WG967289</a>
2-Hexanone	U		0.757	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
n-Hexane	U		0.305	1.00	1	04/05/2017 18:05	<a href="#">WG967289</a>
Iodomethane	U		0.377	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Methylene Chloride	U		1.07	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Naphthalene	U		0.174	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Styrene	U		0.117	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Toluene	U		0.412	1.00	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
Vinyl chloride	U	<u>J4</u>	0.118	0.500	1	04/05/2017 18:05	<a href="#">WG967289</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:05	<a href="#">WG967289</a>
(S) Toluene-d8	109			80.0-120		04/05/2017 18:05	<a href="#">WG967289</a>
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 18:05	<a href="#">WG967289</a>
(S) 4-Bromofluorobenzene	94.7			80.0-120		04/05/2017 18:05	<a href="#">WG967289</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	253000		2710	20000	1	04/01/2017 13:07	<a href="#">WG966192</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	36000		51.9	1000	1	04/01/2017 09:18	<a href="#">WG966056</a>
Nitrate	U		22.7	100	1	04/01/2017 09:18	<a href="#">WG966056</a>
Sulfate	18800		77.4	5000	1	04/01/2017 09:18	<a href="#">WG966056</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3440		102	1000	1	04/05/2017 19:14	<a href="#">WG967101</a>

## Metals (ICPMS) by Method 6020

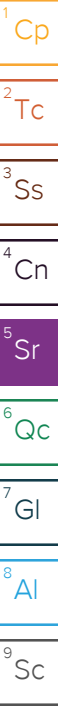
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	487		15.0	100	1	04/05/2017 18:06	<a href="#">WG966260</a>
Manganese	178		0.250	5.00	1	04/05/2017 18:06	<a href="#">WG966260</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	170		0.287	0.678	1	04/04/2017 05:24	<a href="#">WG966794</a>
Ethane	3.35		0.296	1.29	1	04/04/2017 05:24	<a href="#">WG966794</a>
Ethene	2.71		0.422	1.27	1	04/04/2017 05:24	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.84	<a href="#">B J J3</a>	1.05	25.0	1	04/05/2017 18:25	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 18:25	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromoform	U	<a href="#">JO</a>	0.186	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 18:25	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>







Collected date/time: 03/30/17 10:10

L899472

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 18:25	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:25	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 18:25	WG967289
cis-1,2-Dichloroethene	3.97		0.0933	0.500	1	04/05/2017 18:25	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 18:25	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 18:25	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:25	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:25	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 18:25	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 18:25	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 18:25	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 18:25	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 18:25	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 18:25	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 18:25	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 18:25	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 18:25	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 18:25	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 18:25	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 18:25	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 18:25	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 18:25	WG967289
Naphthalene	0.217	<u>BJ</u>	0.174	0.500	1	04/05/2017 18:25	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 18:25	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 18:25	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 18:25	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:25	WG967289
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:25	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 18:25	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:25	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:25	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:25	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:25	WG967289
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:25	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:25	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:25	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:25	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:25	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:25	WG967289
Vinyl chloride	U	<u>J4</u>	0.118	0.500	1	04/05/2017 18:25	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:25	WG967289
(S) Toluene-d8	110			80.0-120		04/05/2017 18:25	WG967289
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:25	WG967289
(S) 4-Bromofluorobenzene	95.3			80.0-120		04/05/2017 18:25	WG967289

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.40	<u>B J J3</u>	1.05	25.0	1	04/05/2017 18:45	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Bromoform	U	<u>JO</u>	0.186	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Dibromomethane	U		0.117	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 18:45	<a href="#">WG967289</a>
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Ethylbenzene	U		0.158	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 18:45	<a href="#">WG967289</a>
2-Hexanone	U		0.757	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
n-Hexane	U		0.305	1.00	1	04/05/2017 18:45	<a href="#">WG967289</a>
Iodomethane	U		0.377	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Methylene Chloride	U		1.07	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Naphthalene	U		0.174	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Styrene	U		0.117	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/30/17 10:20

L899472

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Toluene	U		0.412	1.00	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
Vinyl chloride	U	<u>J4</u>	0.118	0.500	1	04/05/2017 18:45	<a href="#">WG967289</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:45	<a href="#">WG967289</a>
(S) Toluene-d8	110			80.0-120		04/05/2017 18:45	<a href="#">WG967289</a>
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:45	<a href="#">WG967289</a>
(S) 4-Bromofluorobenzene	97.2			80.0-120		04/05/2017 18:45	<a href="#">WG967289</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	118000		2710	20000	1	04/01/2017 13:15	<a href="#">WG966192</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4730		51.9	1000	1	04/01/2017 11:42	<a href="#">WG966056</a>
Nitrate	6870		22.7	100	1	04/01/2017 11:42	<a href="#">WG966056</a>
Sulfate	25200		77.4	5000	1	04/01/2017 11:42	<a href="#">WG966056</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1350		102	1000	1	04/05/2017 19:32	<a href="#">WG967101</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	120		15.0	100	1	04/05/2017 18:09	<a href="#">WG966260</a>
Manganese	1500		0.250	5.00	1	04/05/2017 18:09	<a href="#">WG966260</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	11000		11.5	27.1	40	04/04/2017 17:19	<a href="#">WG967102</a>
Ethane	U		0.296	1.29	1	04/04/2017 05:40	<a href="#">WG966794</a>
Ethene	U		0.422	1.27	1	04/04/2017 05:40	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.16	<a href="#">B J J3</a>	1.05	25.0	1	04/05/2017 19:05	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:05	<a href="#">WG967289</a>
Benzene	0.178	<a href="#">J</a>	0.0896	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromoform	U	<a href="#">JO</a>	0.186	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		1.325	1.00	1	04/05/2017 19:05	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:05	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:05	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloroethene	0.773		0.188	0.500	1	04/05/2017 19:05	WG967289
cis-1,2-Dichloroethene	125		0.0933	0.500	1	04/05/2017 19:05	WG967289
trans-1,2-Dichloroethene	0.396	J	0.152	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:05	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:05	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:05	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:05	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:05	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:05	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:05	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:05	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:05	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:05	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 19:05	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 19:05	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:05	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:05	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:05	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:05	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:05	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:05	WG967289
Naphthalene	0.189	BJ	0.174	0.500	1	04/05/2017 19:05	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:05	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 19:05	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:05	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:05	WG967289
Tetrachloroethene	280		0.995	2.50	5	04/06/2017 18:41	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 19:05	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:05	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:05	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:05	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:05	WG967289
Trichloroethene	50.4		0.153	0.500	1	04/05/2017 19:05	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:05	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:05	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:05	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:05	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:05	WG967289
Vinyl chloride	0.310	JJ4	0.118	0.500	1	04/05/2017 19:05	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:05	WG967289
(S) Toluene-d8	103			80.0-120		04/06/2017 18:41	WG967289
(S) Toluene-d8	107			80.0-120		04/05/2017 19:05	WG967289
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 19:05	WG967289
(S) Dibromofluoromethane	106			76.0-123		04/06/2017 18:41	WG967289
(S) 4-Bromofluorobenzene	95.4			80.0-120		04/06/2017 18:41	WG967289
(S) 4-Bromofluorobenzene	96.0			80.0-120		04/05/2017 19:05	WG967289

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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	211000		2710	20000	1	04/01/2017 13:22	<a href="#">WG966192</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	23800		51.9	1000	1	04/01/2017 09:11	<a href="#">WG966372</a>
Nitrate	U		22.7	100	1	04/01/2017 09:11	<a href="#">WG966372</a>
Sulfate	29000		77.4	5000	1	04/01/2017 09:11	<a href="#">WG966372</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1840		102	1000	1	04/05/2017 20:00	<a href="#">WG967101</a>

## Metals (ICPMS) by Method 6020

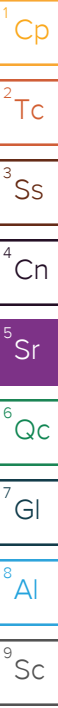
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	18200		15.0	100	1	04/05/2017 18:13	<a href="#">WG966260</a>
Manganese	542		0.250	5.00	1	04/05/2017 18:13	<a href="#">WG966260</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	367		0.287	0.678	1	04/04/2017 06:14	<a href="#">WG966794</a>
Ethane	0.757	J	0.296	1.29	1	04/04/2017 06:14	<a href="#">WG966794</a>
Ethene	1.27	J	0.422	1.27	1	04/04/2017 06:14	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.56	B J J3	1.05	25.0	1	04/05/2017 19:24	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:24	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromoform	U	JO	0.186	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:24	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>





Collected date/time: 03/30/17 12:30

L899472

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:24	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:24	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:24	WG967289
cis-1,2-Dichloroethene	0.491	J	0.0933	0.500	1	04/05/2017 19:24	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:24	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:24	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:24	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:24	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:24	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:24	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:24	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:24	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:24	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:24	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 19:24	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 19:24	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:24	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:24	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:24	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:24	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:24	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:24	WG967289
Naphthalene	U		0.174	0.500	1	04/05/2017 19:24	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:24	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 19:24	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:24	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:24	WG967289
Tetrachloroethene	0.330	J	0.199	0.500	1	04/06/2017 18:54	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 19:24	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:24	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:24	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:24	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:24	WG967289
Trichloroethene	0.203	J	0.153	0.500	1	04/05/2017 19:24	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:24	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:24	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:24	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:24	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:24	WG967289
Vinyl chloride	1.83	J4	0.118	0.500	1	04/05/2017 19:24	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:24	WG967289
(S) Toluene-d8	104			80.0-120		04/06/2017 18:54	WG967289
(S) Toluene-d8	111			80.0-120		04/05/2017 19:24	WG967289
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:54	WG967289
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 19:24	WG967289
(S) 4-Bromofluorobenzene	95.5			80.0-120		04/06/2017 18:54	WG967289
(S) 4-Bromofluorobenzene	97.4			80.0-120		04/05/2017 19:24	WG967289

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	1.27	<u>B J J3</u>	1.05	25.0	1	04/05/2017 19:45	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Bromoform	U	<u>JO</u>	0.186	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
n-Hexane	U		0.305	1.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
Iodomethane	U		0.377	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Naphthalene	U		0.174	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Styrene	U		0.117	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Toluene	U		0.412	1.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Vinyl chloride	U	<u>J4</u>	0.118	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
(S) Toluene-d8	110			80.0-120		04/05/2017 19:45	<a href="#">WG967289</a>
(S) Dibromofluoromethane	103			76.0-123		04/05/2017 19:45	<a href="#">WG967289</a>
(S) 4-Bromofluorobenzene	96.3			80.0-120		04/05/2017 19:45	<a href="#">WG967289</a>

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



Method Blank (MB)

(MB) R3207955-1 04/01/17 12:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Alkalinity	3490	J	2710	20000

<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) R3207955-3 04/01/17 13:36 • (LCSD) R3207955-4 04/01/17 14:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Alkalinity	100000	95900	98000	96.0	98.0	85.0-115			2.00	20





Method Blank (MB)

(MB) R3207649-1 04/01/17 05:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899448-04 Original Sample (OS) • Duplicate (DUP)

(OS) L899448-04 04/01/17 08:39 • (DUP) R3207649-4 04/01/17 09:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	24900	25200	1	1		15
Nitrate	ND	25.9	1	0		15
Sulfate	10800	10700	1	1		15

L899437-13 Original Sample (OS) • Duplicate (DUP)

(OS) L899437-13 04/01/17 14:17 • (DUP) R3207649-7 04/01/17 14:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	466	446	1	4	J	15
Nitrate	U	0.000	1	0		15
Sulfate	U	0.000	1	0		15

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

(LCS) R3207649-2 04/01/17 06:00 • (LCSD) R3207649-3 04/01/17 06:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	41700	41600	104	104	80-120			0	15
Nitrate	8000	8620	8590	108	107	80-120			0	15
Sulfate	40000	40300	39900	101	100	80-120			1	15

L899437-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L899437-14 04/01/17 13:52 • (MS) R3207649-5 04/01/17 14:05

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	322	55000	109	1	80-120	
Nitrate	5000	U	5320	106	1	80-120	



L899437-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L899437-14 04/01/17 13:52 • (MS) R3207649-5 04/01/17 14:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50000	U	53200	106	1	80-120	

L899463-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899463-01 04/01/17 12:47 • (MS) R3207649-8 04/01/17 15:09 • (MSD) R3207649-9 04/01/17 15:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	34600	87400	87000	106	105	1	80-120			1	15
Nitrate	5000	U	5240	5300	105	106	1	80-120			1	15
Sulfate	50000	43900	89400	89400	91	91	1	80-120			0	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) R3207677-1 04/01/17 06:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899722-03 Original Sample (OS) • Duplicate (DUP)

(OS) L899722-03 04/01/17 17:57 • (DUP) R3207677-6 04/01/17 18:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	31100	31100	1	0		15
Nitrate	982	982	1	0		15
Sulfate	3970	4010	1	1	J	15

L899706-02 Original Sample (OS) • Duplicate (DUP)

(OS) L899706-02 04/01/17 14:52 • (DUP) R3207677-4 04/01/17 15:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	5200	4740	1	9		15
Nitrate	U	0.000	1	0		15
Sulfate	4730	4710	1	0	J	15

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

(LCS) R3207677-2 04/01/17 06:46 • (LCSD) R3207677-3 04/01/17 07:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39100	39300	98	98	80-120			0	15
Nitrate	8000	8210	8250	103	103	80-120			1	15
Sulfate	40000	38600	38900	96	97	80-120			1	15

L899722-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899722-12 04/01/17 17:41 • (MS) R3207677-7 04/01/17 19:29 • (MSD) R3207677-8 04/01/17 19:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	1670	53300	52900	103	102	1	80-120			1	15
Nitrate	5000	84.8	5070	5200	100	102	1	80-120			2	15



L899706-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L899706-04 04/01/17 15:22 • (MS) R3207677-5 04/01/17 16:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	50000	3580	55800	104	1	80-120	
Nitrate	5000	630	5860	105	1	80-120	
Sulfate	50000	3760	56500	106	1	80-120	

<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) R3209080-1 04/05/17 09:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899437-05 Original Sample (OS) • Duplicate (DUP)

(OS) L899437-05 04/05/17 11:19 • (DUP) R3209080-2 04/05/17 11:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	2640	2640	1	0		20

L899472-04 Original Sample (OS) • Duplicate (DUP)

(OS) L899472-04 04/05/17 19:32 • (DUP) R3209080-7 04/05/17 19:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1350	1380	1	3		20

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

(LCS) R3209080-3 04/05/17 12:35 • (LCSD) R3209080-4 04/05/17 14:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	70300	69400	94	92	85-115			1	20

L899437-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899437-10 04/05/17 15:06 • (MS) R3209080-5 04/05/17 15:24 • (MSD) R3209080-6 04/05/17 15:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	488	53800	54600	107	108	1	80-120			2	20





Method Blank (MB)

(MB) R3208631-1 04/05/17 16:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3208631-2 04/05/17 16:35 • (LCSD) R3208631-3 04/05/17 16:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5430	5320	109	106	80-120			2	20
Manganese	50.0	50.9	49.8	102	100	80-120			2	20

5 Sr

6 Qc

L899203-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899203-22 04/05/17 16:42 • (MS) R3208631-5 04/05/17 16:49 • (MSD) R3208631-6 04/05/17 16:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	437	5660	5720	104	106	1	75-125			1	20
Manganese	50.0	40.2	87.9	90.4	95	100	1	75-125			3	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3208061-1 04/04/17 00:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L899438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899438-01 04/04/17 03:10 • (DUP) R3208061-2 04/04/17 03:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	8.93	1	3.50	J	20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L899439-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899439-01 04/04/17 03:44 • (DUP) R3208061-3 04/04/17 06:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3208061-4 04/04/17 07:04 • (LCSD) R3208061-5 04/04/17 07:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.0	68.4	103	101	70.0-130			2.30	20
Ethane	129	125	123	97.0	95.0	70.0-130			2.06	20
Ethene	127	123	120	96.8	94.6	70.0-130			2.33	20



Method Blank (MB)

(MB) R3208397-1 04/04/17 14:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<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

L898812-08 Original Sample (OS) • Duplicate (DUP)

(OS) L898812-08 04/04/17 15:06 • (DUP) R3208397-2 04/04/17 18:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	1740	1840	1	5.65		20

L899982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L899982-01 04/05/17 08:40 • (DUP) R3208397-5 04/05/17 11:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

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

(LCS) R3208397-3 04/05/17 10:53 • (LCSD) R3208397-4 04/05/17 11:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	69.6	68.8	103	101	70.0-130			1.12	20



Method Blank (MB)

(MB) R3208524-3 04/05/17 15:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	1.43	U	1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chloroethyl vinyl ether	U		0.877	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500

<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) R3208524-3 04/05/17 15:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.305	U	0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	0.180	U	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	0.144	U	0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	109			80.0-120
(S) Dibromofluoromethane	105			76.0-123
(S) 4-Bromofluorobenzene	96.6			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) R3208524-1 04/05/17 14:11 • (LCSD) R3208524-2 04/05/17 14:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	111	151	89.1	121	10.0-160		<u>J3</u>	30.2	23
Acrylonitrile	125	126	141	101	113	60.0-142			11.1	20
Benzene	25.0	22.4	21.9	89.5	87.5	69.0-123			2.34	20
Bromobenzene	25.0	23.3	23.5	93.0	94.2	79.0-120			1.23	20
Bromodichloromethane	25.0	25.0	24.4	100	97.8	76.0-120			2.40	20
Bromochloromethane	25.0	24.1	24.1	96.4	96.6	76.0-122			0.150	20
Bromoform	25.0	18.8	19.9	75.0	79.6	67.0-132			5.95	20
Bromomethane	25.0	31.4	31.3	126	125	18.0-160			0.290	20
n-Butylbenzene	25.0	26.0	25.1	104	101	72.0-126			3.31	20
sec-Butylbenzene	25.0	22.1	22.3	88.3	89.1	74.0-121			0.890	20
tert-Butylbenzene	25.0	19.8	20.0	79.1	79.9	75.0-122			0.940	20
Carbon disulfide	25.0	30.6	29.5	122	118	55.0-127			3.48	20
Carbon tetrachloride	25.0	21.6	21.9	86.4	87.6	63.0-122			1.35	20
Chlorobenzene	25.0	22.8	22.6	91.3	90.5	79.0-121			0.850	20
Chlorodibromomethane	25.0	23.2	23.5	92.8	93.9	75.0-125			1.10	20
Chloroethane	25.0	32.5	31.5	130	126	47.0-152			3.05	20
2-Chloroethyl vinyl ether	125	109	106	87.3	84.4	10.0-160			3.36	22
Chloroform	25.0	25.5	25.0	102	100	72.0-121			1.74	20
Chloromethane	25.0	28.7	28.5	115	114	48.0-139			0.880	20
2-Chlorotoluene	25.0	23.3	23.5	93.1	94.1	74.0-122			1.14	20
4-Chlorotoluene	25.0	23.4	23.3	93.6	93.3	79.0-120			0.330	20
1,2-Dibromo-3-Chloropropane	25.0	21.9	23.3	87.7	93.2	64.0-127			6.09	20
1,2-Dibromoethane	25.0	22.6	22.9	90.4	91.8	77.0-123			1.54	20
Dibromomethane	25.0	21.8	21.3	87.1	85.3	78.0-120			2.03	20
1,2-Dichlorobenzene	25.0	24.3	23.6	97.1	94.6	80.0-120			2.62	20
1,3-Dichlorobenzene	25.0	20.4	20.6	81.4	82.4	72.0-123			1.22	20
1,4-Dichlorobenzene	25.0	23.7	23.0	94.9	92.0	77.0-120			3.08	20
Dichlorodifluoromethane	25.0	27.1	25.6	108	102	49.0-155			5.71	20
1,1-Dichloroethane	25.0	27.2	26.3	109	105	70.0-126			3.25	20
1,2-Dichloroethane	25.0	27.5	27.5	110	110	67.0-126			0.250	20
1,1-Dichloroethene	25.0	30.8	29.3	123	117	64.0-129			4.92	20
cis-1,2-Dichloroethene	25.0	25.4	25.2	102	101	73.0-120			0.720	20
trans-1,2-Dichloroethene	25.0	25.1	24.1	101	96.6	71.0-121			4.00	20
1,2-Dichloropropane	25.0	25.8	25.5	103	102	75.0-125			0.970	20
1,1-Dichloropropene	25.0	26.3	25.8	105	103	71.0-129			2.00	20
1,3-Dichloropropane	25.0	23.8	24.1	95.1	96.3	80.0-121			1.26	20
cis-1,3-Dichloropropene	25.0	27.6	27.0	110	108	79.0-123			2.05	20
trans-1,3-Dichloropropene	25.0	26.5	26.5	106	106	74.0-127			0.240	20
trans-1,4-Dichloro-2-butene	25.0	22.1	23.9	88.4	95.4	55.0-134			7.66	20
2,2-Dichloropropane	25.0	24.4	25.0	97.7	100	60.0-125			2.53	20

<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) R3208524-1 04/05/17 14:11 • (LCSD) R3208524-2 04/05/17 14:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	28.8	28.4	115	114	59.0-133			1.46	20
Ethylbenzene	25.0	20.5	20.0	81.9	80.1	77.0-120			2.24	20
Hexachloro-1,3-butadiene	25.0	21.4	21.9	85.6	87.6	64.0-131			2.30	20
2-Hexanone	125	126	136	101	109	58.0-147			7.24	20
n-Hexane	25.0	23.4	22.7	93.6	91.0	56.0-124			2.87	20
Iodomethane	125	149	147	119	117	57.0-140			1.38	20
Isopropylbenzene	25.0	20.3	20.3	81.2	81.1	75.0-120			0.160	20
p-Isopropyltoluene	25.0	22.5	22.7	90.0	90.9	74.0-126			0.970	20
2-Butanone (MEK)	125	138	153	111	122	37.0-158			9.98	20
Methylene Chloride	25.0	26.4	26.0	106	104	66.0-121			1.61	20
4-Methyl-2-pentanone (MIBK)	125	157	164	126	131	59.0-143			4.27	20
Methyl tert-butyl ether	25.0	27.8	27.5	111	110	64.0-123			1.03	20
Naphthalene	25.0	22.1	23.5	88.3	94.2	62.0-128			6.47	20
n-Propylbenzene	25.0	20.9	21.1	83.8	84.4	79.0-120			0.720	20
Styrene	25.0	22.3	22.3	89.0	89.1	78.0-124			0.120	20
1,1,1,2-Tetrachloroethane	25.0	22.3	22.6	89.0	90.3	75.0-122			1.44	20
1,1,2,2-Tetrachloroethane	25.0	22.0	22.6	88.0	90.4	71.0-122			2.65	20
1,1,2-Trichlorotrifluoroethane	25.0	27.7	26.3	111	105	61.0-136			5.02	20
Tetrachloroethene	25.0	21.6	21.0	86.5	83.9	70.0-127			3.04	20
Toluene	25.0	20.9	20.2	83.4	80.8	77.0-120			3.16	20
1,2,3-Trichlorobenzene	25.0	22.4	23.7	89.7	94.8	61.0-133			5.52	20
1,2,4-Trichlorobenzene	25.0	22.0	22.9	88.0	91.5	69.0-129			3.85	20
1,1,1-Trichloroethane	25.0	26.3	25.4	105	102	68.0-122			3.43	20
1,1,2-Trichloroethane	25.0	22.4	22.6	89.6	90.5	78.0-120			0.950	20
Trichloroethene	25.0	23.8	23.1	95.1	92.5	78.0-120			2.78	20
Trichlorofluoromethane	25.0	29.9	29.4	120	118	56.0-137			1.53	20
1,2,3-Trichloropropane	25.0	21.7	22.8	86.9	91.2	72.0-124			4.86	20
1,2,4-Trimethylbenzene	25.0	22.7	22.7	90.6	90.8	75.0-120			0.190	20
1,2,3-Trimethylbenzene	25.0	23.4	22.9	93.5	91.5	75.0-120			2.17	20
1,3,5-Trimethylbenzene	25.0	22.9	22.8	91.6	91.3	75.0-120			0.280	20
Vinyl acetate	125	140	131	112	105	46.0-160			6.19	20
Vinyl chloride	25.0	33.5	32.6	134	131	64.0-133	J4		2.47	20
Xylenes, Total	75.0	60.4	59.9	80.5	79.9	77.0-120			0.830	20
(S) Toluene-d8				109	108	80.0-120				
(S) Dibromofluoromethane				108	110	76.0-123				
(S) 4-Bromofluorobenzene				94.3	97.8	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L899630-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899630-02 04/05/17 21:25 • (MS) R3208524-4 04/05/17 21:45 • (MSD) R3208524-5 04/05/17 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	ND	84.4	89.5	65.7	69.8	1	10.0-139			5.92	25
Acrylonitrile	125	ND	144	148	115	118	1	46.0-159			2.98	23
Benzene	25.0	ND	20.5	20.6	81.9	82.5	1	34.0-147			0.700	20
Bromobenzene	25.0	ND	23.9	23.5	95.6	93.9	1	51.0-137			1.80	20
Bromodichloromethane	25.0	ND	25.2	25.3	101	101	1	52.0-135			0.440	20
Bromochloromethane	25.0	ND	23.0	22.8	91.9	91.3	1	53.0-138			0.600	20
Bromoform	25.0	ND	21.6	21.7	86.5	87.0	1	50.0-146			0.580	20
Bromomethane	25.0	ND	25.2	25.7	101	103	1	10.0-160			1.76	23
n-Butylbenzene	25.0	ND	26.4	26.4	105	106	1	50.0-144			0.0300	20
sec-Butylbenzene	25.0	ND	23.3	22.9	93.0	91.5	1	48.0-143			1.65	20
tert-Butylbenzene	25.0	ND	20.8	20.8	83.3	83.1	1	50.0-142			0.170	20
Carbon disulfide	25.0	ND	18.9	19.0	75.5	75.9	1	10.0-147			0.560	20
Carbon tetrachloride	25.0	ND	20.8	21.2	83.4	84.6	1	41.0-138			1.47	20
Chlorobenzene	25.0	ND	22.9	22.7	91.6	90.6	1	52.0-141			1.15	20
Chlorodibromomethane	25.0	ND	24.9	24.7	99.6	98.9	1	54.0-142			0.750	20
Chloroethane	25.0	ND	26.7	26.9	107	108	1	23.0-160			0.750	20
2-Chloroethyl vinyl ether	125	ND	ND	ND	0.000	0.000	1	10.0-160	J6	J6	0.000	40
Chloroform	25.0	ND	24.7	24.6	98.9	98.5	1	50.0-139			0.380	20
Chloromethane	25.0	ND	22.4	22.5	89.7	90.2	1	14.0-151			0.560	20
2-Chlorotoluene	25.0	ND	24.1	23.7	96.2	95.0	1	48.0-142			1.34	20
4-Chlorotoluene	25.0	ND	23.9	23.6	95.4	94.4	1	52.0-139			1.01	20
1,2-Dibromo-3-Chloropropane	25.0	ND	24.2	25.7	96.7	103	1	49.0-144			5.91	24
1,2-Dibromoethane	25.0	ND	23.5	23.0	94.1	91.9	1	54.0-140			2.39	20
Dibromomethane	25.0	ND	22.1	22.0	88.2	88.1	1	53.0-138			0.200	20
1,2-Dichlorobenzene	25.0	ND	25.1	25.0	101	100	1	56.0-139			0.560	20
1,3-Dichlorobenzene	25.0	ND	21.7	21.7	86.7	86.8	1	50.0-141			0.100	20
1,4-Dichlorobenzene	25.0	ND	24.3	23.9	97.4	95.8	1	53.0-136			1.66	20
Dichlorodifluoromethane	25.0	ND	23.7	24.4	94.7	97.5	1	20.0-160			2.84	21
1,1-Dichloroethane	25.0	ND	25.6	25.7	103	103	1	47.0-143			0.160	20
1,2-Dichloroethane	25.0	ND	26.7	26.6	107	106	1	47.0-141			0.410	20
1,1-Dichloroethene	25.0	ND	26.4	26.9	106	108	1	31.0-148			1.80	20
cis-1,2-Dichloroethene	25.0	ND	24.0	23.9	95.9	95.6	1	43.0-142			0.300	20
trans-1,2-Dichloroethene	25.0	ND	21.7	21.8	86.8	87.2	1	36.0-141			0.400	20
1,2-Dichloropropane	25.0	ND	26.0	26.2	104	105	1	51.0-141			0.860	20
1,1-Dichloropropene	25.0	ND	23.5	23.7	93.8	94.9	1	42.0-146			1.09	20
1,3-Dichloropropane	25.0	ND	24.6	24.5	98.6	97.9	1	58.0-139			0.670	20
cis-1,3-Dichloropropene	25.0	ND	27.1	27.0	108	108	1	53.0-139			0.400	20
trans-1,3-Dichloropropene	25.0	ND	26.8	26.7	107	107	1	51.0-143			0.480	20
trans-1,4-Dichloro-2-butene	25.0	ND	24.5	24.4	97.9	97.6	1	40.0-150			0.340	21
2,2-Dichloropropane	25.0	ND	25.2	25.8	101	103	1	43.0-139			2.28	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L899630-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899630-02 04/05/17 21:25 • (MS) R3208524-4 04/05/17 21:45 • (MSD) R3208524-5 04/05/17 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	ND	28.0	28.1	112	113	1	44.0-144			0.540	20
Ethylbenzene	25.0	ND	20.1	19.6	80.2	78.4	1	42.0-147			2.32	20
Hexachloro-1,3-butadiene	25.0	ND	23.6	23.8	94.5	95.2	1	44.0-146			0.710	21
2-Hexanone	125	ND	127	129	102	103	1	36.0-145			1.46	23
n-Hexane	25.0	ND	16.7	17.1	66.7	68.3	1	13.0-145			2.38	20
Iodomethane	125	ND	135	134	108	107	1	30.0-151			0.910	20
Isopropylbenzene	25.0	ND	21.0	20.6	83.8	82.4	1	48.0-141			1.75	20
p-Isopropyltoluene	25.0	ND	23.6	23.7	94.3	94.8	1	49.0-146			0.570	20
2-Butanone (MEK)	125	ND	123	128	98.2	103	1	12.0-149			4.50	24
Methylene Chloride	25.0	ND	22.1	22.2	88.6	88.8	1	42.0-135			0.220	20
4-Methyl-2-pentanone (MIBK)	125	ND	174	176	139	141	1	44.0-160			1.33	22
Methyl tert-butyl ether	25.0	ND	27.3	27.6	109	110	1	42.0-142			0.890	20
Naphthalene	25.0	ND	23.9	24.2	95.5	96.8	1	42.0-146			1.40	24
n-Propylbenzene	25.0	ND	21.3	21.0	85.2	84.1	1	47.0-144			1.27	20
Styrene	25.0	ND	22.4	22.2	89.5	88.8	1	47.0-147			0.780	20
1,1,1,2-Tetrachloroethane	25.0	ND	24.3	23.5	97.1	93.9	1	52.0-140			3.34	20
1,1,2,2-Tetrachloroethane	25.0	ND	25.1	24.9	100	99.8	1	46.0-149			0.580	20
1,1,2-Trichlorotrifluoroethane	25.0	ND	25.7	26.1	103	104	1	40.0-151			1.72	21
Tetrachloroethene	25.0	ND	21.1	20.7	84.3	82.9	1	38.0-147			1.63	20
Toluene	25.0	ND	20.0	19.7	79.9	78.8	1	42.0-141			1.30	20
1,2,3-Trichlorobenzene	25.0	ND	24.8	25.3	99.0	101	1	45.0-145			2.33	22
1,2,4-Trichlorobenzene	25.0	ND	24.4	24.9	97.7	99.6	1	49.0-147			1.91	21
1,1,1-Trichloroethane	25.0	ND	25.0	25.2	100	101	1	46.0-140			0.670	20
1,1,2-Trichloroethane	25.0	ND	23.8	23.7	95.3	95.0	1	54.0-139			0.310	20
Trichloroethene	25.0	ND	22.6	21.9	90.4	87.6	1	32.0-156			3.13	20
Trichlorofluoromethane	25.0	ND	27.0	27.4	108	109	1	32.0-152			1.24	20
1,2,3-Trichloropropane	25.0	ND	24.5	23.9	97.8	95.7	1	54.0-143			2.25	21
1,2,4-Trimethylbenzene	25.0	ND	23.8	23.6	95.4	94.4	1	41.0-146			0.990	20
1,2,3-Trimethylbenzene	25.0	ND	23.4	23.1	93.6	92.4	1	48.0-138			1.26	20
1,3,5-Trimethylbenzene	25.0	ND	23.4	23.1	93.5	92.6	1	44.0-143			1.00	20
Vinyl acetate	125	ND	171	174	136	139	1	30.0-160			1.84	20
Vinyl chloride	25.0	ND	26.8	27.0	107	108	1	24.0-153			0.810	20
Xylenes, Total	75.0	ND	60.0	59.2	79.6	78.5	1	41.0-148			1.34	20
(S) Toluene-d8					108	108		80.0-120				
(S) Dibromofluoromethane					105	105		76.0-123				
(S) 4-Bromofluorobenzene					95.6	94.2		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

<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		

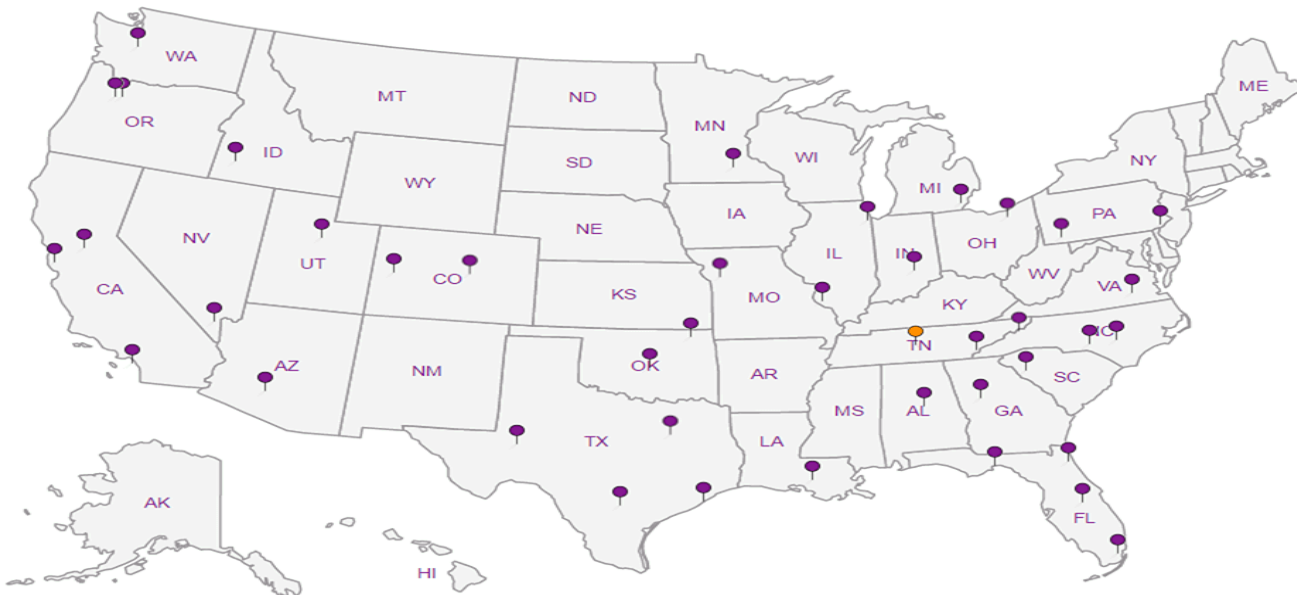
## Third Party & Federal Accreditations

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.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



---

**Susan Peach**

**From:** Jason Romer  
**Sent:** Friday, March 31, 2017 2:05 PM  
**To:** Reporting  
**Subject:** FW: ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472  
**Attachments:** 0807\_001.pdf

Please scan this email and the attached COC with the COC currently scanned for L899472

Thanks,  
Jason

-----Original Message-----

**From:** Bill Haldeman [mailto:[bhaldeman@pesenv.com](mailto:bhaldeman@pesenv.com)]  
**Sent:** Friday, March 31, 2017 2:01 PM  
**To:** Jason Romer  
**Cc:** Brian Ford  
**Subject:** RE: ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472

Jason, we erroneously labeled the fourth sample on the COC (ESC #L899472-04). It was labeled J5-033017 when it should have been labeled N7-033017. Attached is a revised COC. Can you revise the sample name in your system? I apologize for the error. Thanks! -Bill

-----Original Message-----

**From:** Brian Ford [mailto:[bford@esclabsciences.com](mailto:bford@esclabsciences.com)]  
**Sent:** Friday, March 31, 2017 11:35 AM  
**To:** Bill Haldeman  
**Subject:** ESC Lab Sciences Login for 1413.001.02.002 American Linen Supply L899472

**PES Environmental, Inc.- WA**  
 1215 Fourth Ave., Suite 1350  
 Seattle, WA 98161

Billing Information:  
 Attn: Accounts Payable  
 1215 Fourth Ave., Ste. 1350  
 Seattle, WA 98161

Pres Chk

Chain of Custody Page \_\_\_ of \_\_\_



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: 800-757-5859  
 Fax: 615-758-5859



Report to:  
**Bill Haldeman**

Email To: bhaldean@pesenv.com

Project Description: **American Linen Supply**

City/State Collected: **Seattle, WA**

Phone: **206-529-3980**  
 Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
**Shannon McKernan**

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  


Immediately Packed on Ice N  Y

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
 Date Results Needed

Analysis / Container / Preservative						
*NO3, Cl, SO4, Alk 250mlHDPE-NoPres						
NWTPHGX 40mlAmb HCl						
TOC 250mlAmb-HCl						
Total Fe Mn 6020 250mlHDPE-HNO3						
low level 8260C 40mlAmb-HCl						
low level RSK175 40mlAmb-HCl						

L# **899472**

Table #

Acctnum: **PESENVSWA**  
 Template: **T121414**  
 Prelogin: **P592684**  
 TSR: **110 - Brian Ford**  
 PB: **3/13/17**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Entrs	*NO3, Cl, SO4, Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
MW104-033017	GRAB	GW	11.8	3/30/17	0846	4					X	
MW104-033017	Grab	GW	125	3/30/17	1010	9	X		X	X	X	X
SMIN-3-033017	GRAB	GW	14.43	3/30/17	1020	4						
SMIN-3-033017	GRAB	GW	25	3/20/17	1234	9	X		X	X	X	X
W-MW-01-033017	Grab	GW	75	3/30/17	1230	9	X		X	X	X	X
MW302-033017	GRAB	GW	12	3/30/17	1500	4					X	
		GW										
		GW										
		GW										
		GW										

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

Remarks: \*Nitrate has a 48 hour hold time

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_ Tracking # \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N

COC Signed/Accurate:  Y  N

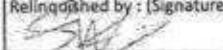
Bottles arrive intact:  Y  N

Correct bottles used:  Y  N

Sufficient volume sent:  Y  N

If Applicable  
 VOA zero Headspace:  Y  N

Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  


Date: **3/30/17**  
 Time: **1300**

Received by: (Signature)

Trip Blank Received: Yes / No  
 HCL / MeOH  
 TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: \_\_\_\_\_ °C Bottles Received: \_\_\_\_\_

If preservation required by Login: Date/Time

Relinquished by: (Signature)

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

Received for lab by: (Signature)

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

Hold: \_\_\_\_\_  
 Condition: NCF / OK

Jeremy W. Watkins

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

<b>Login #:</b> L899472	<b>Client:</b> PESENVSWA	<b>Date:</b> 3/31/17	<b>Evaluated by:</b> Jeremy
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**Non-Conformance (check applicable items)**

<b>Sample Integrity</b>	<b>Chain of Custody Clarification</b>	<b>If Broken Container:</b>
Parameter(s) past holding time	x Login Clarification Needed	Insufficient packing material around container
Improper temperature	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	
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: Received N7 instead of I5-033017. Time Matches. Logged per COC**

<b>Client informed by:</b>	Call	Email	x	Voice Mail	Date: 03/31/17	Time: 1400
<b>TSR Initials:</b> bjf	Client Contact: Bill Haldeman					

**Login Instructions:**

Log as N7-033017

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.



## MEMORANDUM

**TO:** Project File **DATE:** April 25, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** March 30, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L899472

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Six (6) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on March 30, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L899472. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L899472 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.5 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Sample J5-033017 identification on the chain of custody was corrected to read Sample N7-033017 per PES's request on March 31, 2017.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

All samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for bromoform were identified by the laboratory for all samples associated with analytical batch WG967289 (analyzed on April 5, 2017). The bromoform results are qualified by the laboratory "J0" to indicate that percent difference for the CCV is outside of laboratory acceptance criteria. **All associated sample results for bromoform are non-detected and estimated (U).**

## Method Blank Results

*USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) are not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- Low levels of acetone, naphthalene, 1,2,3-trichlorobenzene, and 1,2,4-trimethylbenzene detections were reported in the method blank (Batch WG967289). Detections are less than the RDLs but greater than the method detection limits (MDLs). Compounds 1,2,3-trichlorobenzene, and 1,2,4-trimethylbenzene are not detected in associated samples so no action is required. **Low level acetone detections are reported in all associated samples and are qualified as non-detect (U) due to blank contamination. Low level naphthalene detections are reported in samples MW104-033017 and N7-033017 and are qualified as non-detect (U) due to blank contamination.**

*Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL. No qualifications of the data are made due to the results of the method blank analysis.

*USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL.

*General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity results are significantly greater than low level alkalinity detection in the blank.

### **Trip Blank Results**

*USEPA Method 8260C (VOCs):*  
A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*

Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD for precision data.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analyses were performed on sample N7-033017 and on a non-client sample within the analytical batch. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

*USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## **Laboratory Control Samples**

### *USEPA Method 8260C (VOCs):*

LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussions:

- LCS (Batch WG967289) compound vinyl chloride percent recovery is slightly above laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken as LCSD percent recovery results are within, and MS/MSD recoveries are within criteria for these compounds.
- LCS/LCSD (Batch WG967289) RPD for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are within control limits, and MS/MSD recoveries are within criteria for these compounds.

### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for iron and manganese are within the laboratory control criteria for water.

### *General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPDs for TOC are within the laboratory control criteria for water.

## **Matrix Spike/Matrix Spike Duplicates**

### *USEPA Method 8260C (VOCs):*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD percent recoveries for target analytes are within the laboratory control criteria for water samples with the following exception:

- MS/MSD recoveries for spike compound 2-chloroethyl vinyl ether (2CEVE) were not recovered. In this case no action was taken since LCS/LCSD results for this compound are acceptable and the MS/MSD was performed on a non-client sample within the analytical batch. Refer to LCS/LCSD data for additional information on 2CEVE.



*Method RSK-175:*

Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on a non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



MW214-033017

Collected date/time: 03/30/17 08:46

SAMPLE RESULTS - 01

L899472

ONE LAB. NATIONWIDE.



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.75	U	0.873	2.50	1	04/05/2017 18:05	WG967289
Acrylonitrile	U	B J J3	0.0896	0.500	1	04/05/2017 18:05	WG967289
Benzene	U		0.133	0.500	1	04/05/2017 18:05	WG967289
Bromobenzene	U		0.0800	0.500	1	04/05/2017 18:05	WG967289
Bromodichloromethane	U		0.145	0.500	1	04/05/2017 18:05	WG967289
Bromochloromethane	U		0.186	0.500	1	04/05/2017 18:05	WG967289
Bromoform	U	UJ JO	0.157	0.500	1	04/05/2017 18:05	WG967289
Bromomethane	U		0.143	0.500	1	04/05/2017 18:05	WG967289
n-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:05	WG967289
sec-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:05	WG967289
tert-Butylbenzene	U		0.101	0.500	1	04/05/2017 18:05	WG967289
Carbon disulfide	U		0.159	0.500	1	04/05/2017 18:05	WG967289
Carbon tetrachloride	U		0.140	0.500	1	04/05/2017 18:05	WG967289
Chlorobenzene	U		0.128	0.500	1	04/05/2017 18:05	WG967289
Chlorodibromomethane	U		0.141	0.500	1	04/05/2017 18:05	WG967289
Chloroethane	U		0.877	2.50	1	04/05/2017 18:05	WG967289
2-Chloroethyl vinyl ether	U		0.0860	0.500	1	04/05/2017 18:05	WG967289
Chloroform	U		0.153	0.500	1	04/05/2017 18:05	WG967289
Chloromethane	U		0.111	0.500	1	04/05/2017 18:05	WG967289
2-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:05	WG967289
4-Chlorotoluene	U		0.325	1.00	1	04/05/2017 18:05	WG967289
1,2-Dibromo-3-Chloropropane	U		0.193	0.500	1	04/05/2017 18:05	WG967289
1,2-Dibromoethane	U		0.117	0.500	1	04/05/2017 18:05	WG967289
Dibromomethane	U		0.101	0.500	1	04/05/2017 18:05	WG967289
1,2-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:05	WG967289
1,3-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:05	WG967289
1,4-Dichlorobenzene	U		0.127	0.500	1	04/05/2017 18:05	WG967289
Dichlorodifluoromethane	U		0.114	0.500	1	04/05/2017 18:05	WG967289
1,1-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:05	WG967289
1,2-Dichloroethane	U		0.188	0.500	1	04/05/2017 18:05	WG967289
1,1-Dichloroethene	U		0.0933	0.500	1	04/05/2017 18:05	WG967289
cis-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:05	WG967289
trans-1,2-Dichloroethene	U		0.190	0.500	1	04/05/2017 18:05	WG967289
1,2-Dichloropropane	U		0.128	0.500	1	04/05/2017 18:05	WG967289
1,1-Dichloropropene	U		0.147	0.500	1	04/05/2017 18:05	WG967289
1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:05	WG967289
cis-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:05	WG967289
trans-1,3-Dichloropropene	U		0.257	5.00	1	04/05/2017 18:05	WG967289
trans-1,4-Dichloro-2-butene	U		0.0929	0.500	1	04/05/2017 18:05	WG967289
2,2-Dichloropropane	U		0.0924	0.500	1	04/05/2017 18:05	WG967289
Di-isopropyl ether	U		0.158	0.500	1	04/05/2017 18:05	WG967289
Ethylbenzene	U		0.157	1.00	1	04/05/2017 18:05	WG967289
Hexachloro-1,3-butadiene	U		0.757	2.50	1	04/05/2017 18:05	WG967289
2-Hexanone	U		0.305	1.00	1	04/05/2017 18:05	WG967289
n-Hexane	U		0.377	2.50	1	04/05/2017 18:05	WG967289
Iodomethane	U		0.126	0.500	1	04/05/2017 18:05	WG967289
Isopropylbenzene	U		0.138	0.500	1	04/05/2017 18:05	WG967289
p-Isopropyltoluene	U		1.28	2.50	1	04/05/2017 18:05	WG967289
2-Butanone (MEK)	U		1.07	2.50	1	04/05/2017 18:05	WG967289
Methylene Chloride	U		0.823	2.50	1	04/05/2017 18:05	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.102	0.500	1	04/05/2017 18:05	WG967289
Methyl tert-butyl ether	U		0.174	0.500	1	04/05/2017 18:05	WG967289
Naphthalene	U		0.162	0.500	1	04/05/2017 18:05	WG967289
n-Propylbenzene	U		0.117	0.500	1	04/05/2017 18:05	WG967289
Styrene	U		0.120	0.500	1	04/05/2017 18:05	WG967289
1,1,1,2-Tetrachloroethane	U						

Cp

Tc

Ss

Cn

Sr

Qc

GI

AI

Sc

Je  
4/25/17

MW214-033017

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 03/30/17 08:46

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:05	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:05	WG967289
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:05	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 18:05	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:05	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:05	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:05	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:05	WG967289
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:05	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:05	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:05	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:05	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:05	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:05	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:05	WG967289
Vinyl chloride	U	J4	0.118	0.500	1	04/05/2017 18:05	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:05	WG967289
(S) Toluene-d8	109			80.0-120		04/05/2017 18:05	WG967289
(S) Dibromofluoromethane	105			76.0-123		04/05/2017 18:05	WG967289
(S) 4-Bromofluorobenzene	94.7			80.0-120		04/05/2017 18:05	WG967289

1 Cp

2 Tc

3 Ss

4 Cn

5 Si

6 Qc

7 Gl

8 Al

9 Sc

8c  
7/25/17





Collected date/time: 03/30/17 10:10

L899472

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	253000		2710	20000	1	04/01/2017 13:07	<a href="#">WG966192</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	36000		51.9	1000	1	04/01/2017 09:18	<a href="#">WG966056</a>
Nitrate	U		22.7	100	1	04/01/2017 09:18	<a href="#">WG966056</a>
Sulfate	18800		77.4	5000	1	04/01/2017 09:18	<a href="#">WG966056</a>

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3440		102	1000	1	04/05/2017 19:14	<a href="#">WG967101</a>

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	487		15.0	100	1	04/05/2017 18:06	<a href="#">WG966260</a>
Manganese	178		0.250	5.00	1	04/05/2017 18:06	<a href="#">WG966260</a>

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	170		0.287	0.678	1	04/04/2017 05:24	<a href="#">WG966794</a>
Ethane	3.35		0.296	1.29	1	04/04/2017 05:24	<a href="#">WG966794</a>
Ethene	2.71		0.422	1.27	1	04/04/2017 05:24	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.84	U B J J 3	1.05	25.0	1	04/05/2017 18:25	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 18:25	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromoform	U	U J J J 0	0.186	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 18:25	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 18:25	<a href="#">WG967289</a>

JK 4/25/17



MW104-033017

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 03/30/17 10:10

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Dibromomethane	U		0.117	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 18:25	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:25	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 18:25	WG967289
cis-1,2-Dichloroethene	3.97		0.0933	0.500	1	04/05/2017 18:25	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:25	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 18:25	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 18:25	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 18:25	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:25	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:25	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 18:25	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 18:25	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 18:25	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 18:25	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 18:25	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 18:25	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 18:25	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 18:25	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 18:25	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 18:25	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 18:25	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 18:25	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 18:25	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 18:25	WG967289
Naphthalene	0.217	W BJ	0.174	0.500	1	04/05/2017 18:25	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 18:25	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 18:25	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 18:25	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:25	WG967289
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:25	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 18:25	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:25	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:25	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:25	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:25	WG967289
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:25	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:25	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:25	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:25	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:25	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:25	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:25	WG967289
Vinyl chloride	U	J4	0.118	0.500	1	04/05/2017 18:25	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:25	WG967289
(S) Toluene-d8	110			80.0-120		04/05/2017 18:25	WG967289
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:25	WG967289
(S) 4-Bromofluorobenzene	95.3			80.0-120		04/05/2017 18:25	WG967289

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

Je 4/25/17





Collected date/time: 03/30/17 10:20

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	1.40	U BJJ3	1.05	25.0	1	04/05/2017 18:45	WG967289
Acrylonitrile	U		0.873	2.50	1	04/05/2017 18:45	WG967289
Benzene	U		0.0896	0.500	1	04/05/2017 18:45	WG967289
Bromobenzene	U		0.133	0.500	1	04/05/2017 18:45	WG967289
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 18:45	WG967289
Bromochloromethane	U		0.145	0.500	1	04/05/2017 18:45	WG967289
Bromoform	U	UJ JO	0.186	0.500	1	04/05/2017 18:45	WG967289
Bromomethane	U		0.157	0.500	1	04/05/2017 18:45	WG967289
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 18:45	WG967289
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 18:45	WG967289
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 18:45	WG967289
Carbon disulfide	U		0.101	0.500	1	04/05/2017 18:45	WG967289
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 18:45	WG967289
Chlorobenzene	U		0.140	0.500	1	04/05/2017 18:45	WG967289
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 18:45	WG967289
Chloroethane	U		0.141	0.500	1	04/05/2017 18:45	WG967289
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 18:45	WG967289
Chloroform	U		0.0860	0.500	1	04/05/2017 18:45	WG967289
Chloromethane	U		0.153	0.500	1	04/05/2017 18:45	WG967289
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 18:45	WG967289
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 18:45	WG967289
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 18:45	WG967289
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 18:45	WG967289
Dibromomethane	U		0.117	0.500	1	04/05/2017 18:45	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 18:45	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 18:45	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 18:45	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 18:45	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 18:45	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 18:45	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 18:45	WG967289
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 18:45	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 18:45	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 18:45	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 18:45	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 18:45	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 18:45	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 18:45	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 18:45	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 18:45	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 18:45	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 18:45	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 18:45	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 18:45	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 18:45	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 18:45	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 18:45	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 18:45	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 18:45	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 18:45	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 18:45	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 18:45	WG967289
Naphthalene	U		0.174	0.500	1	04/05/2017 18:45	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 18:45	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 18:45	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 18:45	WG967289

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

*JC 4/25/17*



Collected date/time: 03/30/17 10:20

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 18:45	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 18:45	WG967289
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 18:45	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 18:45	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 18:45	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 18:45	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 18:45	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 18:45	WG967289
Trichloroethene	U		0.153	0.500	1	04/05/2017 18:45	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 18:45	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 18:45	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 18:45	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 18:45	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 18:45	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 18:45	WG967289
Vinyl chloride	U	J4	0.118	0.500	1	04/05/2017 18:45	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 18:45	WG967289
(S) Toluene-d8	110			80.0-120		04/05/2017 18:45	WG967289
(S) Dibromofluoromethane	106			76.0-123		04/05/2017 18:45	WG967289
(S) 4-Bromofluorobenzene	97.2			80.0-120		04/05/2017 18:45	WG967289

1 Cp

2 Tc

3 Ss

4 Cn

5 Si

6 Qc

7 Gl

8 Al

9 Sc

Handwritten signature and date: Jc 4/25/17



N7-033017

Collected date/time: 03/30/17 12:34

SAMPLE RESULTS - 04

L899472

ONE LAB. NATIONWIDE



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	118000		2710	20000	1	04/01/2017 13:15	<a href="#">WG966192</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	4730		51.9	1000	1	04/01/2017 11:42	<a href="#">WG966056</a>
Nitrate	6870		22.7	100	1	04/01/2017 11:42	<a href="#">WG966056</a>
Sulfate	25200		77.4	5000	1	04/01/2017 11:42	<a href="#">WG966056</a>

Ss

Cn

Si

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1350		102	1000	1	04/05/2017 19:32	<a href="#">WG967101</a>

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	120		15.0	100	1	04/05/2017 18:09	<a href="#">WG966260</a>
Manganese	1500		0.250	5.00	1	04/05/2017 18:09	<a href="#">WG966260</a>

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	11000		11.5	27.1	40	04/04/2017 17:19	<a href="#">WG967102</a>
Ethane	U		0.296	1.29	1	04/04/2017 05:40	<a href="#">WG966794</a>
Ethene	U		0.422	1.27	1	04/04/2017 05:40	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.16	W B J J 3	1.05	25.0	1	04/05/2017 19:05	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:05	<a href="#">WG967289</a>
Benzene	0.178	J J	0.0896	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromoform	U	J J J O	0.186	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:05	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:05	<a href="#">WG967289</a>

Handwritten note: Jc. 4/25/17



N7-033017

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE



Collected date/time: 03/30/17 12:34

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:05	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:05	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloroethene	0.773		0.188	0.500	1	04/05/2017 19:05	WG967289
cis-1,2-Dichloroethene	125		0.0933	0.500	1	04/05/2017 19:05	WG967289
trans-1,2-Dichloroethene	0.396	J	0.152	0.500	1	04/05/2017 19:05	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:05	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:05	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:05	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:05	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:05	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:05	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:05	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:05	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:05	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:05	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:05	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 19:05	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 19:05	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:05	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:05	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:05	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:05	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:05	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:05	WG967289
Naphthalene	0.189	U BJ	0.174	0.500	1	04/05/2017 19:05	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:05	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 19:05	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:05	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:05	WG967289
Tetrachloroethene	280		0.995	2.50	5	04/06/2017 18:41	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 19:05	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:05	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:05	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:05	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:05	WG967289
Trichloroethene	50.4		0.153	0.500	1	04/05/2017 19:05	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:05	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:05	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:05	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:05	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:05	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:05	WG967289
Vinyl chloride	0.310	J JJ4	0.118	0.500	1	04/05/2017 19:05	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:05	WG967289
(S) Toluene-d8	103			80.0-120		04/06/2017 18:41	WG967289
(S) Toluene-d8	107			80.0-120		04/05/2017 19:05	WG967289
(S) Dibromofluoromethane	104			76.0-123		04/05/2017 19:05	WG967289
(S) Dibromofluoromethane	106			76.0-123		04/06/2017 18:41	WG967289
(S) 4-Bromofluorobenzene	95.4			80.0-120		04/06/2017 18:41	WG967289
(S) 4-Bromofluorobenzene	96.0			80.0-120		04/05/2017 19:05	WG967289

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

J  
4/25/17





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	211000		2710	20000	1	04/01/2017 13:22	<a href="#">WG966192</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	23800		51.9	1000	1	04/01/2017 09:11	<a href="#">WG966372</a>
Nitrate	U		22.7	100	1	04/01/2017 09:11	<a href="#">WG966372</a>
Sulfate	29000		77.4	5000	1	04/01/2017 09:11	<a href="#">WG966372</a>

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	1840		102	1000	1	04/05/2017 20:00	<a href="#">WG967101</a>

5 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	18200		15.0	100	1	04/05/2017 18:13	<a href="#">WG966260</a>
Manganese	542		0.250	5.00	1	04/05/2017 18:13	<a href="#">WG966260</a>

6 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	367		0.287	0.678	1	04/04/2017 06:14	<a href="#">WG966794</a>
Ethane	0.757	J	0.296	1.29	1	04/04/2017 06:14	<a href="#">WG966794</a>
Ethene	1.27	J	0.422	1.27	1	04/04/2017 06:14	<a href="#">WG966794</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.56	U	1.05	25.0	1	04/05/2017 19:24	<a href="#">WG967289</a>
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:24	<a href="#">WG967289</a>
Benzene	U		0.0896	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromoform	U		0.186	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Bromomethane	U		0.157	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloroethane	U		0.141	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloroform	U		0.0860	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
Chloromethane	U		0.153	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:24	<a href="#">WG967289</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:24	<a href="#">WG967289</a>

GC  
4/25/17





Collected date/time: 03/30/17 12:30

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:24	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:24	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:24	WG967289
cis-1,2-Dichloroethene	0.491	J	0.0933	0.500	1	04/05/2017 19:24	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:24	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:24	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:24	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:24	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:24	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:24	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:24	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:24	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:24	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:24	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:24	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:24	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 19:24	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 19:24	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:24	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:24	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:24	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:24	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:24	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:24	WG967289
Naphthalene	U		0.174	0.500	1	04/05/2017 19:24	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:24	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 19:24	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:24	WG967289
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:24	WG967289
Tetrachloroethene	0.330	J	0.199	0.500	1	04/06/2017 18:54	WG967289
Toluene	U		0.412	1.00	1	04/05/2017 19:24	WG967289
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:24	WG967289
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:24	WG967289
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:24	WG967289
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:24	WG967289
Trichloroethene	0.203	J	0.153	0.500	1	04/05/2017 19:24	WG967289
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:24	WG967289
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:24	WG967289
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:24	WG967289
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:24	WG967289
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:24	WG967289
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:24	WG967289
Vinyl chloride	1.83	J4	0.118	0.500	1	04/05/2017 19:24	WG967289
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:24	WG967289
(S) Toluene-d8	104			80.0-120		04/06/2017 18:54	WG967289
(S) Toluene-d8	111			80.0-120		04/05/2017 19:24	WG967289
(S) Dibromofluoromethane	107			76.0-123		04/06/2017 18:54	WG967289
(S) Dibromofluoromethane	108			76.0-123		04/05/2017 19:24	WG967289
(S) 4-Bromofluorobenzene	95.5			80.0-120		04/06/2017 18:54	WG967289
(S) 4-Bromofluorobenzene	97.4			80.0-120		04/05/2017 19:24	WG967289

Cp  
Tc  
Ss  
Cn  
Sr  
Qc  
Gl  
Al  
Sc

JC  
 4/25/17





Collected date/time: 03/30/17 15:00

L899472

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.27	<i>U</i> <u>BJJ3</u>	1.05	25.0	1	04/05/2017 19:45	WG967289
Acrylonitrile	U		0.873	2.50	1	04/05/2017 19:45	WG967289
Benzene	U		0.0896	0.500	1	04/05/2017 19:45	WG967289
Bromobenzene	U		0.133	0.500	1	04/05/2017 19:45	WG967289
Bromodichloromethane	U		0.0800	0.500	1	04/05/2017 19:45	WG967289
Bromochloromethane	U		0.145	0.500	1	04/05/2017 19:45	WG967289
Bromoform	U	<i>VJ</i> <u>JG</u>	0.186	0.500	1	04/05/2017 19:45	WG967289
Bromomethane	U		0.157	0.500	1	04/05/2017 19:45	WG967289
n-Butylbenzene	U		0.143	0.500	1	04/05/2017 19:45	WG967289
sec-Butylbenzene	U		0.134	0.500	1	04/05/2017 19:45	WG967289
tert-Butylbenzene	U		0.183	0.500	1	04/05/2017 19:45	WG967289
Carbon disulfide	U		0.101	0.500	1	04/05/2017 19:45	WG967289
Carbon tetrachloride	U		0.159	0.500	1	04/05/2017 19:45	WG967289
Chlorobenzene	U		0.140	0.500	1	04/05/2017 19:45	WG967289
Chlorodibromomethane	U		0.128	0.500	1	04/05/2017 19:45	WG967289
Chloroethane	U		0.141	0.500	1	04/05/2017 19:45	WG967289
2-Chloroethyl vinyl ether	U		0.877	2.50	1	04/05/2017 19:45	WG967289
Chloroform	U		0.0860	0.500	1	04/05/2017 19:45	WG967289
Chloromethane	U		0.153	0.500	1	04/05/2017 19:45	WG967289
2-Chlorotoluene	U		0.111	0.500	1	04/05/2017 19:45	WG967289
4-Chlorotoluene	U		0.0972	0.500	1	04/05/2017 19:45	WG967289
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/05/2017 19:45	WG967289
1,2-Dibromoethane	U		0.193	0.500	1	04/05/2017 19:45	WG967289
Dibromomethane	U		0.117	0.500	1	04/05/2017 19:45	WG967289
1,2-Dichlorobenzene	U		0.101	0.500	1	04/05/2017 19:45	WG967289
1,3-Dichlorobenzene	U		0.130	0.500	1	04/05/2017 19:45	WG967289
1,4-Dichlorobenzene	U		0.121	0.500	1	04/05/2017 19:45	WG967289
Dichlorodifluoromethane	U		0.127	0.500	1	04/05/2017 19:45	WG967289
1,1-Dichloroethane	U		0.114	0.500	1	04/05/2017 19:45	WG967289
1,2-Dichloroethane	U		0.108	0.500	1	04/05/2017 19:45	WG967289
1,1-Dichloroethene	U		0.188	0.500	1	04/05/2017 19:45	WG967289
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/05/2017 19:45	WG967289
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/05/2017 19:45	WG967289
1,2-Dichloropropane	U		0.190	0.500	1	04/05/2017 19:45	WG967289
1,1-Dichloropropene	U		0.128	0.500	1	04/05/2017 19:45	WG967289
1,3-Dichloropropane	U		0.147	0.500	1	04/05/2017 19:45	WG967289
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/05/2017 19:45	WG967289
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/05/2017 19:45	WG967289
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/05/2017 19:45	WG967289
2,2-Dichloropropane	U		0.0929	0.500	1	04/05/2017 19:45	WG967289
Di-isopropyl ether	U		0.0924	0.500	1	04/05/2017 19:45	WG967289
Ethylbenzene	U		0.158	0.500	1	04/05/2017 19:45	WG967289
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/05/2017 19:45	WG967289
2-Hexanone	U		0.757	2.50	1	04/05/2017 19:45	WG967289
n-Hexane	U		0.305	1.00	1	04/05/2017 19:45	WG967289
Iodomethane	U		0.377	2.50	1	04/05/2017 19:45	WG967289
Isopropylbenzene	U		0.126	0.500	1	04/05/2017 19:45	WG967289
p-Isopropyltoluene	U		0.138	0.500	1	04/05/2017 19:45	WG967289
2-Butanone (MEK)	U		1.28	2.50	1	04/05/2017 19:45	WG967289
Methylene Chloride	U		1.07	2.50	1	04/05/2017 19:45	WG967289
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/05/2017 19:45	WG967289
Methyl tert-butyl ether	U		0.102	0.500	1	04/05/2017 19:45	WG967289
Naphthalene	U		0.174	0.500	1	04/05/2017 19:45	WG967289
n-Propylbenzene	U		0.162	0.500	1	04/05/2017 19:45	WG967289
Styrene	U		0.117	0.500	1	04/05/2017 19:45	WG967289
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/05/2017 19:45	WG967289

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

*Jc*  
*4/25/17*



Collected date/time: 03/30/17 15:00

L899472

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Tetrachloroethene	U		0.199	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Toluene	U		0.412	1.00	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Trichloroethene	U		0.153	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Vinyl acetate	U		0.645	2.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
Vinyl chloride	U	<u>J4</u>	0.118	0.500	1	04/05/2017 19:45	<a href="#">WG967289</a>
Xylenes, Total	U		0.316	1.50	1	04/05/2017 19:45	<a href="#">WG967289</a>
(S) Toluene-d8	110			80.0-120		04/05/2017 19:45	<a href="#">WG967289</a>
(S) Dibromofluoromethane	103			76.0-123		04/05/2017 19:45	<a href="#">WG967289</a>
(S) 4-Bromofluorobenzene	96.3			80.0-120		04/05/2017 19:45	<a href="#">WG967289</a>

Cp

Tc

Ss

Cn

Si

Qc

Gl

Al

Sc

*Sc*  
04/25/17



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L900217  
Samples Received: 04/04/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.





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# SAMPLE SUMMARY



MW123-040117 L900217-01 GW

Collected by  
C. DeBoer

Collected date/time  
04/01/17 08:45

Received date/time  
04/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG969487	1	04/12/17 00:32	04/12/17 00:32	LRL

<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



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.

Brian Ford  
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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.83	<u>B J J3</u>	1.05	25.0	1	04/12/2017 00:32	<a href="#">WG969487</a>
Acrylonitrile	U		0.873	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Benzene	U		0.0896	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Bromobenzene	U		0.133	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Bromodichloromethane	U		0.0800	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Bromochloromethane	U		0.145	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Bromoform	U		0.186	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Bromomethane	U		0.157	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
n-Butylbenzene	U		0.143	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
sec-Butylbenzene	U		0.134	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
tert-Butylbenzene	U		0.183	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Carbon disulfide	U		0.101	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Carbon tetrachloride	U		0.159	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Chlorobenzene	U		0.140	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Chlorodibromomethane	U		0.128	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Chloroethane	U		0.141	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Chloroform	U		0.0860	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Chloromethane	U		0.153	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
2-Chlorotoluene	U		0.111	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Dibromomethane	U		0.117	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Dichlorodifluoromethane	U		0.127	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1-Dichloroethane	U		0.114	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2-Dichloroethane	U		0.108	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1-Dichloroethene	U		0.188	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2-Dichloropropane	U		0.190	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1-Dichloropropene	U		0.128	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,3-Dichloropropane	U		0.147	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
2,2-Dichloropropane	U		0.0929	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Di-isopropyl ether	0.141	<u>J</u>	0.0924	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Ethylbenzene	U		0.158	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
2-Hexanone	U		0.757	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
n-Hexane	U		0.305	1.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
Iodomethane	U		0.377	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Isopropylbenzene	U		0.126	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
p-Isopropyltoluene	U		0.138	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
2-Butanone (MEK)	U		1.28	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Methylene Chloride	U		1.07	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Methyl tert-butyl ether	U		0.102	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Naphthalene	U		0.174	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
n-Propylbenzene	U		0.162	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Styrene	U		0.117	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Tetrachloroethene	U		0.199	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Toluene	U		0.412	1.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Trichloroethene	U		0.153	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Vinyl acetate	U		0.645	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Vinyl chloride	U		0.118	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Xylenes, Total	U		0.316	1.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
(S) Toluene-d8	103			80.0-120		04/12/2017 00:32	<a href="#">WG969487</a>
(S) Dibromofluoromethane	91.6			76.0-123		04/12/2017 00:32	<a href="#">WG969487</a>
(S) 4-Bromofluorobenzene	99.0			80.0-120		04/12/2017 00:32	<a href="#">WG969487</a>

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





Method Blank (MB)

(MB) R3210122-3 04/11/17 19:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	2.62	J	1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

<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) R3210122-3 04/11/17 19:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	89.9			76.0-123
(S) 4-Bromofluorobenzene	98.2			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) R3210122-1 04/11/17 17:22 • (LCSD) R3210122-2 04/11/17 17:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	162	101	130	80.7	10.0-160		<u>J3</u>	46.5	23
Acrylonitrile	125	129	107	103	85.4	60.0-142			18.9	20
Benzene	25.0	20.2	20.3	81.0	81.1	69.0-123			0.140	20
Bromobenzene	25.0	23.9	24.4	95.7	97.5	79.0-120			1.83	20
Bromodichloromethane	25.0	22.5	22.4	90.0	89.7	76.0-120			0.330	20
Bromochloromethane	25.0	21.7	21.2	86.7	84.8	76.0-122			2.19	20
Bromoform	25.0	20.5	20.3	82.0	81.3	67.0-132			0.860	20
Bromomethane	25.0	21.4	20.3	85.4	81.2	18.0-160			4.99	20
n-Butylbenzene	25.0	23.7	24.7	94.7	98.8	72.0-126			4.20	20
sec-Butylbenzene	25.0	21.9	25.5	87.6	102	74.0-121			15.2	20
tert-Butylbenzene	25.0	19.7	22.0	79.0	87.9	75.0-122			10.7	20
Carbon disulfide	25.0	24.6	24.2	98.2	96.9	55.0-127			1.33	20
Carbon tetrachloride	25.0	19.8	19.9	79.4	79.4	63.0-122			0.0800	20
Chlorobenzene	25.0	22.8	22.4	91.1	89.5	79.0-121			1.76	20
Chlorodibromomethane	25.0	21.7	22.1	86.8	88.5	75.0-125			1.95	20
Chloroethane	25.0	24.3	23.8	97.0	95.2	47.0-152			1.85	20
Chloroform	25.0	21.5	21.5	85.9	86.0	72.0-121			0.0800	20
Chloromethane	25.0	23.5	23.1	93.8	92.4	48.0-139			1.57	20
2-Chlorotoluene	25.0	24.0	24.9	96.2	99.5	74.0-122			3.39	20
4-Chlorotoluene	25.0	23.5	24.9	94.0	99.7	79.0-120			5.94	20
1,2-Dibromo-3-Chloropropane	25.0	20.6	16.9	82.6	67.6	64.0-127			19.9	20
1,2-Dibromoethane	25.0	21.4	22.3	85.5	89.3	77.0-123			4.28	20
Dibromomethane	25.0	20.5	20.6	82.1	82.2	78.0-120			0.170	20
1,2-Dichlorobenzene	25.0	22.7	22.4	90.9	89.7	80.0-120			1.30	20
1,3-Dichlorobenzene	25.0	21.0	24.2	83.9	96.8	72.0-123			14.3	20
1,4-Dichlorobenzene	25.0	21.9	22.9	87.4	91.7	77.0-120			4.73	20
Dichlorodifluoromethane	25.0	24.0	23.8	95.9	95.0	49.0-155			0.920	20
1,1-Dichloroethane	25.0	23.5	23.5	94.1	94.2	70.0-126			0.0900	20
1,2-Dichloroethane	25.0	22.6	22.2	90.4	88.8	67.0-126			1.78	20
1,1-Dichloroethene	25.0	23.4	23.4	93.5	93.5	64.0-129			0.000	20
cis-1,2-Dichloroethene	25.0	21.7	21.5	86.7	85.9	73.0-120			0.930	20
trans-1,2-Dichloroethene	25.0	23.0	22.4	91.9	89.5	71.0-121			2.71	20
1,2-Dichloropropane	25.0	25.3	25.3	101	101	75.0-125			0.000	20
1,1-Dichloropropene	25.0	25.2	25.1	101	100	71.0-129			0.750	20
1,3-Dichloropropane	25.0	23.5	24.6	93.9	98.2	80.0-121			4.50	20
cis-1,3-Dichloropropene	25.0	25.7	26.2	103	105	79.0-123			1.91	20
trans-1,3-Dichloropropene	25.0	22.9	23.5	91.8	94.0	74.0-127			2.42	20
trans-1,4-Dichloro-2-butene	25.0	22.0	23.1	88.2	92.2	55.0-134			4.52	20
2,2-Dichloropropane	25.0	22.3	22.6	89.1	90.4	60.0-125			1.49	20
Di-isopropyl ether	25.0	24.2	24.0	96.8	95.8	59.0-133			0.970	20

- 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) R3210122-1 04/11/17 17:22 • (LCSD) R3210122-2 04/11/17 17:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	20.7	20.2	82.8	80.6	77.0-120			2.62	20
Hexachloro-1,3-butadiene	25.0	21.6	20.4	86.6	81.8	64.0-131			5.69	20
2-Hexanone	125	118	119	94.5	95.3	58.0-147			0.760	20
n-Hexane	25.0	22.3	22.0	89.3	87.9	56.0-124			1.53	20
Iodomethane	125	102	103	81.9	82.6	57.0-140			0.880	20
Isopropylbenzene	25.0	21.1	22.5	84.4	90.0	75.0-120			6.36	20
p-Isopropyltoluene	25.0	21.8	25.2	87.0	101	74.0-126			14.7	20
2-Butanone (MEK)	125	120	109	95.9	87.0	37.0-158			9.79	20
Methylene Chloride	25.0	21.9	21.5	87.5	86.2	66.0-121			1.54	20
4-Methyl-2-pentanone (MIBK)	125	126	121	101	97.1	59.0-143			4.11	20
Methyl tert-butyl ether	25.0	22.4	21.8	89.6	87.0	64.0-123			2.94	20
Naphthalene	25.0	18.7	15.6	74.9	62.5	62.0-128			18.0	20
n-Propylbenzene	25.0	22.9	23.4	91.7	93.6	79.0-120			2.01	20
Styrene	25.0	22.1	20.2	88.3	80.9	78.0-124			8.81	20
1,1,1,2-Tetrachloroethane	25.0	22.1	21.7	88.5	87.0	75.0-122			1.78	20
1,1,2,2-Tetrachloroethane	25.0	23.3	23.0	93.4	91.9	71.0-122			1.61	20
1,1,2-Trichlorotrifluoroethane	25.0	21.0	21.0	83.8	84.0	61.0-136			0.180	20
Tetrachloroethene	25.0	22.0	23.0	88.1	92.1	70.0-127			4.39	20
Toluene	25.0	20.6	20.8	82.5	83.4	77.0-120			1.02	20
1,2,3-Trichlorobenzene	25.0	21.7	18.4	86.6	73.5	61.0-133			16.3	20
1,2,4-Trichlorobenzene	25.0	22.3	19.6	89.0	78.3	69.0-129			12.8	20
1,1,1-Trichloroethane	25.0	23.0	23.3	91.8	93.2	68.0-122			1.42	20
1,1,2-Trichloroethane	25.0	21.2	22.1	84.8	88.6	78.0-120			4.33	20
Trichloroethene	25.0	23.0	23.4	92.1	93.7	78.0-120			1.72	20
Trichlorofluoromethane	25.0	20.3	20.9	81.2	83.6	56.0-137			2.96	20
1,2,3-Trichloropropane	25.0	24.4	24.6	97.8	98.4	72.0-124			0.630	20
1,2,4-Trimethylbenzene	25.0	21.7	24.6	86.6	98.3	75.0-120			12.6	20
1,2,3-Trimethylbenzene	25.0	20.1	20.8	80.4	83.1	75.0-120			3.35	20
1,3,5-Trimethylbenzene	25.0	22.8	23.5	91.3	94.0	75.0-120			2.96	20
Vinyl acetate	125	114	107	91.3	85.7	46.0-160			6.28	20
Vinyl chloride	25.0	26.7	26.5	107	106	64.0-133			0.850	20
Xylenes, Total	75.0	63.3	60.1	84.4	80.1	77.0-120			5.19	20
(S) Toluene-d8				102	101	80.0-120				
(S) Dibromofluoromethane				92.8	91.5	76.0-123				
(S) 4-Bromofluorobenzene				107	103	80.0-120				

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



## Abbreviations and Definitions

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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

<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		

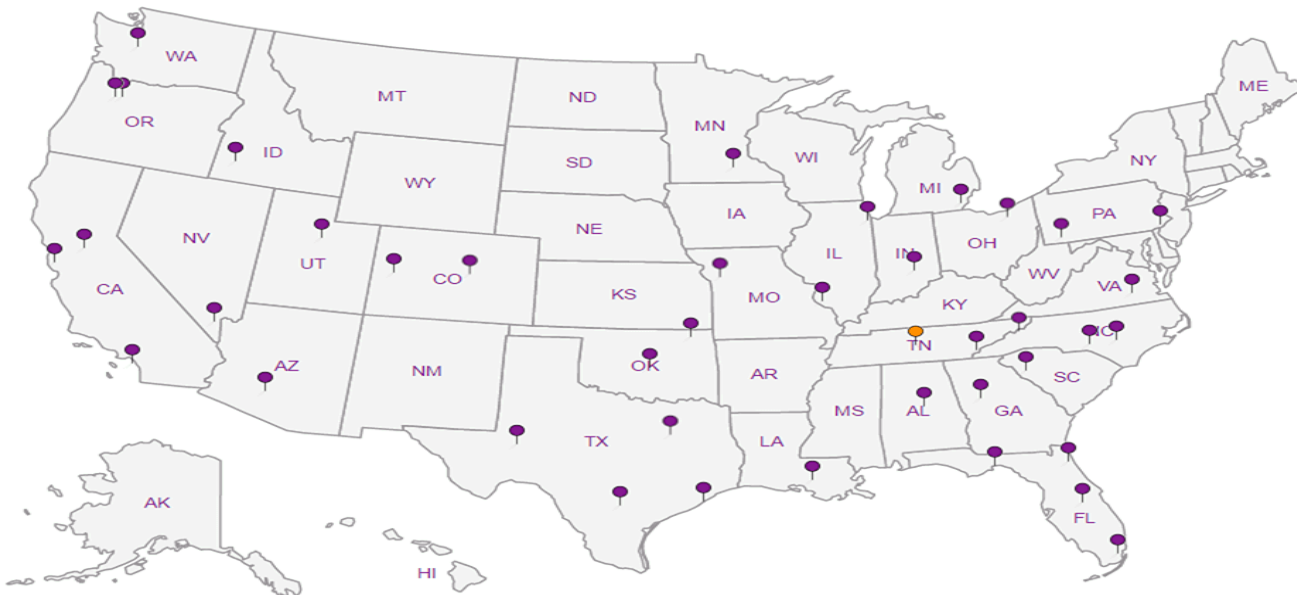
## Third Party & Federal Accreditations

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.**



<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



## MEMORANDUM

**TO:** Project File **DATE:** April 26, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** April 1, 2017- Groundwater Sampling  
**LAB:** ESC Lab ID L900217

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 1, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L900217. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L900217 is summarized below.

### **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

### **DATA VALIDATION**

#### **Completeness**

All samples were collected and analyzed as requested.

#### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees

Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

*USEPA Method 8260C:*

The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

### **Method Blank Results**

*USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- A low level acetone detection was reported in the method blank (WG969487). The detection was less than the reporting detection limit (RDL) but greater than the method detection limit (MDL). **The acetone result in sample MW123-040117 is qualified as not detected (U) due to associated method blank contamination.**

### **Trip Blank Results**

*USEPA Method 8260C (VOCs):*

A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

### **Surrogate Recoveries**

*USEPA Method 8260C (VOCs):*

The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

*USEPA Method 8260C (VOCs):*

An LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG969487) RPD for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken as LCS/LCSD percent recovery results are recovered wide but are still within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

MS/MSD analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017)

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.83	W BJJ3	1.05	25.0	1	04/12/2017 00:32	WG969487
Acrylonitrile	U		0.873	2.50	1	04/12/2017 00:32	WG969487
Benzene	U		0.0896	0.500	1	04/12/2017 00:32	WG969487
Bromobenzene	U		0.133	0.500	1	04/12/2017 00:32	WG969487
Bromodichloromethane	U		0.0800	0.500	1	04/12/2017 00:32	WG969487
Bromochloromethane	U		0.145	0.500	1	04/12/2017 00:32	WG969487
Bromoform	U		0.186	0.500	1	04/12/2017 00:32	WG969487
Bromomethane	U		0.157	0.500	1	04/12/2017 00:32	WG969487
n-Butylbenzene	U		0.143	0.500	1	04/12/2017 00:32	WG969487
sec-Butylbenzene	U		0.134	0.500	1	04/12/2017 00:32	WG969487
tert-Butylbenzene	U		0.183	0.500	1	04/12/2017 00:32	WG969487
Carbon disulfide	U		0.101	0.500	1	04/12/2017 00:32	WG969487
Carbon tetrachloride	U		0.159	0.500	1	04/12/2017 00:32	WG969487
Chlorobenzene	U		0.140	0.500	1	04/12/2017 00:32	WG969487
Chlorodibromomethane	U		0.128	0.500	1	04/12/2017 00:32	WG969487
Chloroethane	U		0.141	0.500	1	04/12/2017 00:32	WG969487
Chloroform	U		0.0860	0.500	1	04/12/2017 00:32	WG969487
Chloromethane	U		0.153	0.500	1	04/12/2017 00:32	WG969487
2-Chlorotoluene	U		0.111	0.500	1	04/12/2017 00:32	WG969487
4-Chlorotoluene	U		0.0972	0.500	1	04/12/2017 00:32	WG969487
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/12/2017 00:32	WG969487
1,2-Dibromoethane	U		0.193	0.500	1	04/12/2017 00:32	WG969487
Dibromomethane	U		0.117	0.500	1	04/12/2017 00:32	WG969487
1,2-Dichlorobenzene	U		0.101	0.500	1	04/12/2017 00:32	WG969487
1,3-Dichlorobenzene	U		0.130	0.500	1	04/12/2017 00:32	WG969487
1,4-Dichlorobenzene	U		0.121	0.500	1	04/12/2017 00:32	WG969487
Dichlorodifluoromethane	U		0.127	0.500	1	04/12/2017 00:32	WG969487
1,1-Dichloroethane	U		0.114	0.500	1	04/12/2017 00:32	WG969487
1,2-Dichloroethane	U		0.108	0.500	1	04/12/2017 00:32	WG969487
1,1-Dichloroethene	U		0.188	0.500	1	04/12/2017 00:32	WG969487
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/12/2017 00:32	WG969487
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/12/2017 00:32	WG969487
1,2-Dichloropropane	U		0.190	0.500	1	04/12/2017 00:32	WG969487
1,1-Dichloropropene	U		0.128	0.500	1	04/12/2017 00:32	WG969487
1,3-Dichloropropane	U		0.147	0.500	1	04/12/2017 00:32	WG969487
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/12/2017 00:32	WG969487
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/12/2017 00:32	WG969487
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/12/2017 00:32	WG969487
2,2-Dichloropropane	U		0.0929	0.500	1	04/12/2017 00:32	WG969487
Di-isopropyl ether	0.141	J	0.0924	0.500	1	04/12/2017 00:32	WG969487
Ethylbenzene	U		0.158	0.500	1	04/12/2017 00:32	WG969487
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/12/2017 00:32	WG969487
2-Hexanone	U		0.757	2.50	1	04/12/2017 00:32	WG969487
n-Hexane	U		0.305	1.00	1	04/12/2017 00:32	WG969487
Iodomethane	U		0.377	2.50	1	04/12/2017 00:32	WG969487
Isopropylbenzene	U		0.126	0.500	1	04/12/2017 00:32	WG969487
p-Isopropyltoluene	U		0.138	0.500	1	04/12/2017 00:32	WG969487
2-Butanone (MEK)	U		1.28	2.50	1	04/12/2017 00:32	WG969487
Methylene Chloride	U		1.07	2.50	1	04/12/2017 00:32	WG969487
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/12/2017 00:32	WG969487
Methyl tert-butyl ether	U		0.102	0.500	1	04/12/2017 00:32	WG969487
Naphthalene	U		0.174	0.500	1	04/12/2017 00:32	WG969487
n-Propylbenzene	U		0.162	0.500	1	04/12/2017 00:32	WG969487
Styrene	U		0.117	0.500	1	04/12/2017 00:32	WG969487
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/12/2017 00:32	WG969487
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/12/2017 00:32	WG969487

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

QC 4/26/17

MW123-040117

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 04/01/17 08:45

L900217

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Tetrachloroethene	U		0.199	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Toluene	U		0.412	1.00	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Trichloroethene	U		0.153	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Vinyl acetate	U		0.645	2.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
Vinyl chloride	U		0.118	0.500	1	04/12/2017 00:32	<a href="#">WG969487</a>
Xylenes, Total	U		0.316	1.50	1	04/12/2017 00:32	<a href="#">WG969487</a>
(S) Toluene-d8	103			80.0-120		04/12/2017 00:32	<a href="#">WG969487</a>
(S) Dibromofluoromethane	91.6			76.0-123		04/12/2017 00:32	<a href="#">WG969487</a>
(S) 4-Bromofluorobenzene	99.0			80.0-120		04/12/2017 00:32	<a href="#">WG969487</a>

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

JL 4/26/17



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L901706  
Samples Received: 04/11/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



MW129-041017 L901706-01 GW

Collected by  
C. DeBoer

Collected date/time  
04/10/17 14:05

Received date/time  
04/11/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG969253	1	04/11/17 11:36	04/11/17 11:36	AMC
Wet Chemistry by Method 9056A	WG969255	1	04/11/17 11:12	04/11/17 11:12	KCF
Wet Chemistry by Method 9056A	WG969853	5	04/13/17 11:59	04/13/17 11:59	SAM
Wet Chemistry by Method 9060A	WG969458	1	04/13/17 04:12	04/13/17 04:12	SJM
Metals (ICPMS) by Method 6020	WG969609	1	04/12/17 17:06	04/13/17 11:44	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG969641	1	04/13/17 01:04	04/13/17 01:04	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG971582	5	04/19/17 05:42	04/19/17 05:42	CAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG971582	50	04/20/17 00:36	04/20/17 00:36	JHH

<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





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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	308000		2710	20000	1	04/11/2017 11:36	<a href="#">WG969253</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	44200		51.9	1000	1	04/11/2017 11:12	<a href="#">WG969255</a>
Nitrate	U		22.7	100	1	04/11/2017 11:12	<a href="#">WG969255</a>
Sulfate	124000		387	25000	5	04/13/2017 11:59	<a href="#">WG969853</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2740		102	1000	1	04/13/2017 04:12	<a href="#">WG969458</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	365		15.0	100	1	04/13/2017 11:44	<a href="#">WG969609</a>
Manganese	402		0.250	5.00	1	04/13/2017 11:44	<a href="#">WG969609</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	279		0.287	0.678	1	04/13/2017 01:04	<a href="#">WG969641</a>
Ethane	26.8		0.296	1.29	1	04/13/2017 01:04	<a href="#">WG969641</a>
Ethene	U		0.422	1.27	1	04/13/2017 01:04	<a href="#">WG969641</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.25	125	5	04/19/2017 05:42	<a href="#">WG971582</a>
Acrylonitrile	U		4.36	12.5	5	04/19/2017 05:42	<a href="#">WG971582</a>
Benzene	U		0.448	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromobenzene	U		0.665	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromodichloromethane	U		0.400	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromochloromethane	U		0.725	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromoform	U		0.930	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromomethane	U		0.785	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
n-Butylbenzene	U		0.715	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
sec-Butylbenzene	U		0.670	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
tert-Butylbenzene	U		0.915	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Carbon disulfide	U		0.505	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Carbon tetrachloride	U		0.795	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chlorobenzene	U		0.700	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chlorodibromomethane	U		0.640	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloroethane	U		0.705	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloroform	U		0.430	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloromethane	U		0.765	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
2-Chlorotoluene	U		0.555	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
4-Chlorotoluene	U		0.486	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
1,2-Dibromo-3-Chloropropane	U		1.62	5.00	5	04/19/2017 05:42	<a href="#">WG971582</a>
1,2-Dibromoethane	U		0.965	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Dibromomethane	U		0.585	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.505	2.50	5	04/19/2017 05:42	WG971582
1,3-Dichlorobenzene	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,4-Dichlorobenzene	U		0.605	2.50	5	04/19/2017 05:42	WG971582
Dichlorodifluoromethane	U		0.635	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloroethane	U		0.570	2.50	5	04/19/2017 05:42	WG971582
1,2-Dichloroethane	U		0.540	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloroethene	4.86		0.940	2.50	5	04/19/2017 05:42	WG971582
cis-1,2-Dichloroethene	1420		4.66	25.0	50	04/20/2017 00:36	WG971582
trans-1,2-Dichloroethene	5.05		0.760	2.50	5	04/19/2017 05:42	WG971582
1,2-Dichloropropane	U		0.950	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloropropene	U		0.640	2.50	5	04/19/2017 05:42	WG971582
1,3-Dichloropropane	U		0.735	2.50	5	04/19/2017 05:42	WG971582
cis-1,3-Dichloropropene	U		0.488	2.50	5	04/19/2017 05:42	WG971582
trans-1,3-Dichloropropene	U		1.11	2.50	5	04/19/2017 05:42	WG971582
trans-1,4-Dichloro-2-butene	U		1.28	25.0	5	04/19/2017 05:42	WG971582
2,2-Dichloropropane	U		0.464	2.50	5	04/19/2017 05:42	WG971582
Di-isopropyl ether	U		0.462	2.50	5	04/19/2017 05:42	WG971582
Ethylbenzene	U		0.790	2.50	5	04/19/2017 05:42	WG971582
Hexachloro-1,3-butadiene	U		0.785	5.00	5	04/19/2017 05:42	WG971582
2-Hexanone	U		3.78	12.5	5	04/19/2017 05:42	WG971582
n-Hexane	U		1.52	5.00	5	04/19/2017 05:42	WG971582
Iodomethane	U	J4	18.8	125	50	04/20/2017 00:36	WG971582
Isopropylbenzene	U		0.630	2.50	5	04/19/2017 05:42	WG971582
p-Isopropyltoluene	U		0.690	2.50	5	04/19/2017 05:42	WG971582
2-Butanone (MEK)	U		6.40	12.5	5	04/19/2017 05:42	WG971582
Methylene Chloride	U		5.35	12.5	5	04/19/2017 05:42	WG971582
4-Methyl-2-pentanone (MIBK)	U		4.12	12.5	5	04/19/2017 05:42	WG971582
Methyl tert-butyl ether	U		0.510	2.50	5	04/19/2017 05:42	WG971582
Naphthalene	1.42	J	0.870	2.50	5	04/19/2017 05:42	WG971582
n-Propylbenzene	U		0.810	2.50	5	04/19/2017 05:42	WG971582
Styrene	U		0.585	2.50	5	04/19/2017 05:42	WG971582
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	04/19/2017 05:42	WG971582
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	04/19/2017 05:42	WG971582
Tetrachloroethene	194		0.995	2.50	5	04/19/2017 05:42	WG971582
Toluene	U		2.06	5.00	5	04/19/2017 05:42	WG971582
1,2,3-Trichlorobenzene	U		0.820	2.50	5	04/19/2017 05:42	WG971582
1,2,4-Trichlorobenzene	U		1.78	2.50	5	04/19/2017 05:42	WG971582
1,1,1-Trichloroethane	U		0.470	2.50	5	04/19/2017 05:42	WG971582
1,1,2-Trichloroethane	U		0.930	2.50	5	04/19/2017 05:42	WG971582
Trichloroethene	492		0.765	2.50	5	04/19/2017 05:42	WG971582
Trichlorofluoromethane	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,2,3-Trichloropropane	U		1.24	12.5	5	04/19/2017 05:42	WG971582
1,2,4-Trimethylbenzene	U		0.615	2.50	5	04/19/2017 05:42	WG971582
1,2,3-Trimethylbenzene	U		0.370	2.50	5	04/19/2017 05:42	WG971582
1,3,5-Trimethylbenzene	U		0.620	2.50	5	04/19/2017 05:42	WG971582
Vinyl acetate	U		3.22	12.5	5	04/19/2017 05:42	WG971582
Vinyl chloride	0.885	J	0.590	2.50	5	04/19/2017 05:42	WG971582
Xylenes, Total	U		1.58	7.50	5	04/19/2017 05:42	WG971582
(S) Toluene-d8	102			80.0-120		04/19/2017 05:42	WG971582
(S) Toluene-d8	103			80.0-120		04/20/2017 00:36	WG971582
(S) Dibromofluoromethane	105			76.0-123		04/19/2017 05:42	WG971582
(S) Dibromofluoromethane	110			76.0-123		04/20/2017 00:36	WG971582
(S) 4-Bromofluorobenzene	95.7			80.0-120		04/19/2017 05:42	WG971582
(S) 4-Bromofluorobenzene	102			80.0-120		04/20/2017 00:36	WG971582

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3209969-1 04/11/17 10:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3220	J	2710	20000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901406-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901406-01 04/11/17 10:32 • (DUP) R3209969-2 04/11/17 10:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	46400	47600	1	3.00		20

L901543-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901543-01 04/11/17 12:01 • (DUP) R3209969-4 04/11/17 12:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	75300	74000	1	2.00		20

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

(LCS) R3209969-3 04/11/17 11:11 • (LCSD) R3209969-5 04/11/17 12:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	101000	97300	101	97.0	85.0-115			4.00	20



Method Blank (MB)

(MB) R3210076-1 04/11/17 06:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901638-09 Original Sample (OS) • Duplicate (DUP)

(OS) L901638-09 04/11/17 13:04 • (DUP) R3210076-4 04/11/17 13:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	16300	16500	1	1		15
Nitrate	1340	1330	1	1		15

L901709-07 Original Sample (OS) • Duplicate (DUP)

(OS) L901709-07 04/11/17 16:10 • (DUP) R3210076-6 04/11/17 16:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	47100	47200	1	0		15
Nitrate	2210	2200	1	0		15

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

(LCS) R3210076-2 04/11/17 07:07 • (LCSD) R3210076-3 04/11/17 07:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39500	39500	99	99	80-120			0	15
Nitrate	8000	8180	8190	102	102	80-120			0	15

L901638-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L901638-11 04/11/17 13:29 • (MS) R3210076-5 04/11/17 13:41

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	15900	66300	101	1	80-120	
Nitrate	5000	133	5050	98	1	80-120	





[L901706-01](#)

L901709-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901709-08 04/11/17 17:00 • (MS) R3210076-7 04/11/17 17:12 • (MSD) R3210076-8 04/11/17 17:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	27000	76100	76400	98	99	1	80-120			0	15
Nitrate	5000	ND	4900	4830	98	97	1	80-120			1	15

L901705-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L901705-01 04/11/17 18:27 • (MS) R3210076-9 04/11/17 18:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5000	ND	22700	90	5	80-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3210785-2 04/13/17 09:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901882-05 Original Sample (OS) • Duplicate (DUP)

(OS) L901882-05 04/13/17 13:57 • (DUP) R3210785-7 04/13/17 14:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	ND	3640	1	23	J P1	15

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

(LCS) R3210785-3 04/13/17 09:44 • (LCSD) R3210785-4 04/13/17 09:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	40800	40900	102	102	80-120			0	15

L901882-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L901882-01 04/13/17 13:06 • (MS) R3210785-6 04/13/17 13:16

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	ND	52200	102	1	80-120	

L902037-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902037-01 04/13/17 15:49 • (MS) R3210785-8 04/13/17 15:59 • (MSD) R3210785-9 04/13/17 16:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	ND	55700	55600	104	104	1	80-120			0	15



Method Blank (MB)

(MB) R3210413-1 04/12/17 16:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901588-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901588-01 04/12/17 20:37 • (DUP) R3210413-4 04/12/17 22:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	5370	5180	1	4		20

L901588-13 Original Sample (OS) • Duplicate (DUP)

(OS) L901588-13 04/13/17 03:02 • (DUP) R3210413-7 04/13/17 03:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	4040	3960	1	2		20

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

(LCS) R3210413-2 04/12/17 18:30 • (LCSD) R3210413-3 04/12/17 20:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74700	74800	100	100	85-115			0	20

L901588-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901588-07 04/12/17 23:44 • (MS) R3210413-5 04/13/17 00:07 • (MSD) R3210413-6 04/13/17 00:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	3980	55700	56900	104	106	1	80-120			2	20



Method Blank (MB)

(MB) R3210537-1 04/13/17 10:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	0.349	J	0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3210537-2 04/13/17 10:58 • (LCSD) R3210537-3 04/13/17 11:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4880	4920	98	98	80-120			1	20
Manganese	50.0	48.1	50.0	96	100	80-120			4	20

5 Sr

6 Qc

L901739-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L901739-09 04/13/17 11:05 • (MS) R3210537-5 04/13/17 11:12 • (MSD) R3210537-6 04/13/17 11:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000		4930	4990	99	100	1	75-125			1	20
Manganese	50.0	ND	48.2	49.3	93	96	1	75-125			2	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3210496-1 04/12/17 23:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901416-03 Original Sample (OS) • Duplicate (DUP)

(OS) L901416-03 04/12/17 23:24 • (DUP) R3210496-2 04/13/17 02:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	2460	2500	10	1.67		20
Ethane	U	0.000	10	0.000		20
Ethene	U	0.000	10	0.000		20

L901992-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901992-01 04/13/17 02:44 • (DUP) R3210496-3 04/13/17 05:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3210496-4 04/13/17 05:48 • (LCSD) R3210496-5 04/13/17 06:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	63.5	64.0	93.6	94.5	70.0-130			0.870	20
Ethane	129	111	113	86.0	87.2	70.0-130			1.41	20
Ethene	127	109	110	86.1	86.8	70.0-130			0.840	20





Method Blank (MB)

(MB) R3211879-3 04/19/17 03:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
2-Chlorotoluene	U		0.111	0.500
Chloroform	U		0.0860	0.500
4-Chlorotoluene	U		0.0972	0.500
Chloromethane	U		0.153	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
cis-1,2-Dichloroethene	0.314	U	0.0933	0.500
1,1-Dichloroethane	U		0.114	0.500
1,1-Dichloropropene	U		0.128	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
1,3-Dichloropropane	U		0.147	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
Hexachloro-1,3-butadiene	U		0.157	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



Method Blank (MB)

(MB) R3211879-3 04/19/17 03:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
trans-1,3-Dichloropropene	U		0.222	0.500
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Ethylbenzene	U		0.158	0.500
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Methylene Chloride	U		1.07	2.50
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
Naphthalene	U		0.174	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	2.50
Toluene	U		0.412	1.00
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	104			76.0-123
(S) 4-Bromofluorobenzene	96.9			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) R3211879-1 04/19/17 01:06 • (LCSD) R3211879-2 04/19/17 02:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	124	134	99.5	107	10.0-160			7.26	23
Bromobenzene	25.0	25.4	25.4	101	102	79.0-120			0.290	20
Bromochloromethane	25.0	25.6	25.8	102	103	76.0-122			0.740	20
n-Butylbenzene	25.0	23.4	23.3	93.6	93.1	72.0-126			0.550	20
sec-Butylbenzene	25.0	22.5	22.5	90.1	90.0	74.0-121			0.0300	20
tert-Butylbenzene	25.0	22.5	22.6	89.9	90.2	75.0-122			0.380	20
Carbon disulfide	25.0	22.8	22.9	91.0	91.7	55.0-127			0.690	20
2-Chlorotoluene	25.0	24.8	24.7	99.2	99.0	74.0-122			0.200	20
4-Chlorotoluene	25.0	24.6	24.5	98.2	98.0	79.0-120			0.160	20
1,2-Dibromo-3-Chloropropane	25.0	22.7	23.1	90.6	92.5	64.0-127			2.02	20
1,2-Dibromoethane	25.0	25.2	25.1	101	100	77.0-123			0.500	20
Dibromomethane	25.0	24.0	24.3	96.2	97.3	78.0-120			1.17	20
1,2-Dichlorobenzene	25.0	26.6	26.4	106	106	80.0-120			0.860	20
1,3-Dichlorobenzene	25.0	25.3	25.4	101	102	72.0-123			0.340	20
1,4-Dichlorobenzene	25.0	27.2	26.8	109	107	77.0-120			1.22	20
Dichlorodifluoromethane	25.0	25.9	25.8	104	103	49.0-155			0.390	20
cis-1,2-Dichloroethene	25.0	26.7	27.3	107	109	73.0-120			2.32	20
1,1-Dichloropropene	25.0	25.7	25.7	103	103	71.0-129			0.290	20
1,3-Dichloropropane	25.0	27.1	27.1	108	109	80.0-121			0.130	20
Acrylonitrile	125	139	140	111	112	60.0-142			0.460	20
Benzene	25.0	28.0	28.3	112	113	69.0-123			1.11	20
trans-1,4-Dichloro-2-butene	25.0	16.7	16.5	66.9	66.0	55.0-134			1.28	20
2,2-Dichloropropane	25.0	18.8	19.1	75.4	76.5	60.0-125			1.42	20
Bromodichloromethane	25.0	24.3	24.1	97.2	96.5	76.0-120			0.720	20
Di-isopropyl ether	25.0	25.9	26.2	104	105	59.0-133			1.26	20
Bromoform	25.0	24.2	24.2	96.7	96.7	67.0-132			0.0500	20
Hexachloro-1,3-butadiene	25.0	21.8	22.2	87.1	88.9	64.0-131			2.10	20
2-Hexanone	125	142	146	114	117	58.0-147			2.69	20
Bromomethane	25.0	28.7	26.9	115	107	18.0-160			6.52	20
n-Hexane	25.0	25.0	25.3	100	101	56.0-124			0.940	20
Iodomethane	125	48.8	58.6	39.1	46.9	57.0-140	<u>J4</u>	<u>J4</u>	18.1	20
Isopropylbenzene	25.0	24.1	23.9	96.5	95.6	75.0-120			0.890	20
p-Isopropyltoluene	25.0	22.6	22.5	90.3	90.1	74.0-126			0.200	20
2-Butanone (MEK)	125	143	146	114	116	37.0-158			2.12	20
Carbon tetrachloride	25.0	21.6	21.9	86.3	87.7	63.0-122			1.59	20
4-Methyl-2-pentanone (MIBK)	125	142	142	113	113	59.0-143			0.200	20
Chlorobenzene	25.0	26.0	25.7	104	103	79.0-121			1.12	20
Chlorodibromomethane	25.0	23.7	23.7	94.7	94.8	75.0-125			0.110	20
Methyl tert-butyl ether	25.0	24.8	25.0	99.4	100	64.0-123			0.610	20
Chloroethane	25.0	22.4	22.8	89.5	91.2	47.0-152			1.92	20

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) R3211879-1 04/19/17 01:06 • (LCSD) R3211879-2 04/19/17 02:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	25.0	24.9	24.9	99.7	99.7	79.0-120			0.0100	20
Chloroform	25.0	25.4	25.4	101	102	72.0-121			0.180	20
Styrene	25.0	25.5	25.3	102	101	78.0-124			0.880	20
1,1,1,2-Tetrachloroethane	25.0	24.0	24.3	96.1	97.3	75.0-122			1.27	20
Chloromethane	25.0	22.1	23.3	88.4	93.2	48.0-139			5.32	20
1,1,2-Trichlorotrifluoroethane	25.0	24.8	25.1	99.1	100	61.0-136			1.32	20
1,2,3-Trichlorobenzene	25.0	24.3	24.5	97.3	98.2	61.0-133			0.870	20
1,2,4-Trichlorobenzene	25.0	24.8	24.3	99.0	97.0	69.0-129			2.04	20
Trichlorofluoromethane	25.0	24.7	23.7	98.7	95.0	56.0-137			3.86	20
1,2,3-Trichloropropane	25.0	23.2	23.3	93.0	93.1	72.0-124			0.160	20
1,1-Dichloroethane	25.0	26.0	26.7	104	107	70.0-126			2.65	20
1,2,4-Trimethylbenzene	25.0	23.2	23.4	92.7	93.7	75.0-120			1.08	20
1,2,3-Trimethylbenzene	25.0	24.6	24.5	98.3	98.0	75.0-120			0.310	20
1,2-Dichloroethane	25.0	21.4	22.1	85.8	88.5	67.0-126			3.17	20
1,1-Dichloroethene	25.0	24.0	24.6	95.9	98.5	64.0-129			2.68	20
1,3,5-Trimethylbenzene	25.0	23.2	23.2	92.9	92.8	75.0-120			0.140	20
Vinyl acetate	125	106	94.1	84.6	75.3	46.0-160			11.7	20
trans-1,2-Dichloroethene	25.0	26.1	26.1	105	105	71.0-121			0.000	20
1,2-Dichloropropane	25.0	27.5	27.0	110	108	75.0-125			1.76	20
cis-1,3-Dichloropropene	25.0	24.2	23.6	96.8	94.2	79.0-123			2.70	20
trans-1,3-Dichloropropene	25.0	23.0	22.9	92.0	91.7	74.0-127			0.340	20
Ethylbenzene	25.0	25.6	25.8	102	103	77.0-120			0.790	20
Methylene Chloride	25.0	25.4	25.8	102	103	66.0-121			1.27	20
Naphthalene	25.0	24.2	24.7	96.8	98.6	62.0-128			1.84	20
1,1,2,2-Tetrachloroethane	25.0	25.3	24.3	101	97.0	71.0-122			4.16	20
Tetrachloroethene	25.0	25.3	25.0	101	100	70.0-127			1.32	20
Toluene	25.0	26.0	26.0	104	104	77.0-120			0.340	20
1,1,1-Trichloroethane	25.0	22.9	22.9	91.4	91.5	68.0-122			0.0400	20
1,1,2-Trichloroethane	25.0	26.8	26.9	107	108	78.0-120			0.600	20
Trichloroethene	25.0	26.2	26.8	105	107	78.0-120			2.26	20
Vinyl chloride	25.0	28.6	28.8	114	115	64.0-133			0.650	20
Xylenes, Total	75.0	76.4	76.7	102	102	77.0-120			0.390	20
(S) Toluene-d8				104	103	80.0-120				
(S) Dibromofluoromethane				102	104	76.0-123				
(S) 4-Bromofluorobenzene				94.8	95.8	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

<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		

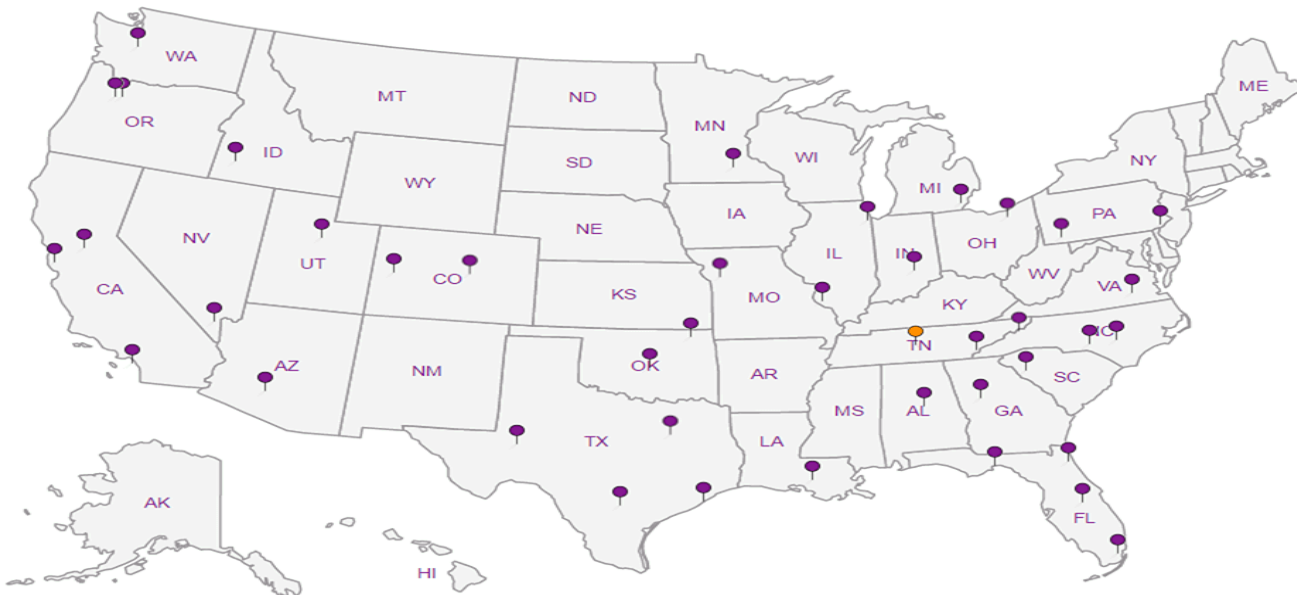
## Third Party & Federal Accreditations

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.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**PES Environmental, Inc. - WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:  
Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: bhaldeman@pesenv.com

Project  
Description: **American Linen Supply**

City/State  
Collected: *Seattle, WA*

Phone: **206-529-3980**  
Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
*C. DeBoer*

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  
*Chris DeBoer*

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

Quote #

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

Date Results Needed

immediately  
Packed on Ice: N  Y

No. of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
<i>MW12A-07/10/17</i>	<i>Grab</i>	<i>GW</i>	<i>86.5</i>	<i>4/10/17</i>	<i>1405</i>	<i>9</i>
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				
		<i>GW</i>				

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

Remarks: \*Nitrate has a 48 hour hold time

Samples returned via:  
 UPS  FedEx  Courier

Tracking # *7176 9011 7177*

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)

Date: *4/10/17*  
Time: *1510*

Received by: (Signature)

Trip Blank Received: Yes  No   
HCL / MeOH  
TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: *5.1°C* Bottles Received: *9*

Relinquished by: (Signature)

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

Received for lab by: (Signature)

Date: *4-11-17* Time: *8:45*

If preservation required by Login: Date/Time

Hold: \_\_\_\_\_ Condition: *NCF 1/OK*

Pres Chk	Analysis / Container / Preservative					
	*NO3,Cl,SO4,Alk 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3 <i>LR</i>	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl

Chain of Custody Page \_\_\_ of \_\_\_

YOUR LAB OF CHOICE

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

L # *901706*

**K019**

Acctnum: **PESENVSWA**

Template: **T121414**

Prelogin: **P592684**

TSR: **110 - Brian Ford**

PB: *3-13-176*

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

*01*

## MEMORANDUM

**TO:** Project File **DATE:** April 25, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** April 10, 2017- Groundwater Sampling  
**LAB:** ESC Lab ID L901706

---

One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 10, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following analytical parameters:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L901706. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L901706 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 5.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B and EPA Methods 9056A and 9060A):*

The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

## **Method Blank Results**

### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs) with the following discussion:

- A low level cis-1,2-dichloroethene detection was reported in the method blank (Batch WG971582). The detection was less than the reporting detection limit (RDL) but greater than the method detection limit (MDL). The cis-1,2-dichloroethene result in the associated sample, sample MW129-041017, is significantly greater than the low level detection in the blank. No action was taken.

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

### *USEPA Method 6020:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL with the following discussion:

- A low level manganese result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for manganese is significantly greater than the manganese detection in the method blank.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level alkalinity result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for alkalinity is significantly greater than low level alkalinity detection in the method blank.

## **Trip Blank Results**

### *USEPA Method 8260C (VOCs):*

A trip blank was not collected.

## **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.



## **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## **Laboratory Duplicate Analyses**

### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

### *Method RSK-175:*

Laboratory duplicate sample analysis was performed on a non-client sample. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

### *USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

### *General Chemistry:*

*SM 2320B:* Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analyses were performed on non-client samples within each analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analysis are within the laboratory control limit of 20%.

## **Surrogate Recoveries**

### *USEPA Method 8260C (VOCs):*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

## **Laboratory Control Samples**

### *USEPA Method 8260C (VOCs):*

LCS/LCSD was analyzed by USEPA Method 8260C. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD spiking compound (Batch WG971582) iodomethane (also referred to as methyl iodide) percent recovery is slightly below laboratory acceptance criteria and

qualified by the laboratory (J4). **The iodomethane result for the associated sample MW129-041017 is qualified as estimated (UJ) due to low LCS/LCSD recoveries.**

*Method RSK-175:*

LCS/LCSD was analyzed by the RSK-175 method along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSD was analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes were within the laboratory control criteria for water.

*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

Matrix spike analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*

Matrix spike analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A*: MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

MW129-041017

Collected date/time: 04/10/17 14:05

SAMPLE RESULTS - 01

L901706

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	308000		2710	20000	1	04/11/2017 11:36	<a href="#">WG969253</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	44200		51.9	1000	1	04/11/2017 11:12	<a href="#">WG969255</a>
Nitrate	U		22.7	100	1	04/11/2017 11:12	<a href="#">WG969255</a>
Sulfate	124000		387	25000	5	04/13/2017 11:59	<a href="#">WG969853</a>

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2740		102	1000	1	04/13/2017 04:12	<a href="#">WG969458</a>

Qc

Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	365		15.0	100	1	04/13/2017 11:44	<a href="#">WG969609</a>
Manganese	402		0.250	5.00	1	04/13/2017 11:44	<a href="#">WG969609</a>

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	279		0.287	0.678	1	04/13/2017 01:04	<a href="#">WG969641</a>
Ethane	26.8		0.296	1.29	1	04/13/2017 01:04	<a href="#">WG969641</a>
Ethene	U		0.422	1.27	1	04/13/2017 01:04	<a href="#">WG969641</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		5.25	125	5	04/19/2017 05:42	<a href="#">WG971582</a>
Acrylonitrile	U		4.36	12.5	5	04/19/2017 05:42	<a href="#">WG971582</a>
Benzene	U		0.448	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromobenzene	U		0.665	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromodichloromethane	U		0.400	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromochloromethane	U		0.725	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromoform	U		0.930	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Bromomethane	U		0.785	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
n-Butylbenzene	U		0.715	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
sec-Butylbenzene	U		0.670	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
tert-Butylbenzene	U		0.915	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Carbon disulfide	U		0.505	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Carbon tetrachloride	U		0.795	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chlorobenzene	U		0.700	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chlorodibromomethane	U		0.640	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloroethane	U		0.705	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloroform	U		0.430	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Chloromethane	U		0.765	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
2-Chlorotoluene	U		0.555	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
4-Chlorotoluene	U		0.486	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
1,2-Dibromo-3-Chloropropane	U		1.62	5.00	5	04/19/2017 05:42	<a href="#">WG971582</a>
1,2-Dibromoethane	U		0.965	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>
Dibromomethane	U		0.585	2.50	5	04/19/2017 05:42	<a href="#">WG971582</a>

*AC 4/25/17*



MW129-041017

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE



Collected date/time: 04/10/17 14:05

L901706

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.505	2.50	5	04/19/2017 05:42	WG971582
1,3-Dichlorobenzene	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,4-Dichlorobenzene	U		0.605	2.50	5	04/19/2017 05:42	WG971582
Dichlorodifluoromethane	U		0.635	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloroethane	U		0.570	2.50	5	04/19/2017 05:42	WG971582
1,2-Dichloroethane	U		0.540	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloroethene	4.86		0.940	2.50	5	04/19/2017 05:42	WG971582
cis-1,2-Dichloroethene	1420		4.66	25.0	50	04/20/2017 00:36	WG971582
trans-1,2-Dichloroethene	5.05		0.760	2.50	5	04/19/2017 05:42	WG971582
1,2-Dichloropropane	U		0.950	2.50	5	04/19/2017 05:42	WG971582
1,1-Dichloropropene	U		0.640	2.50	5	04/19/2017 05:42	WG971582
1,3-Dichloropropane	U		0.735	2.50	5	04/19/2017 05:42	WG971582
cis-1,3-Dichloropropene	U		0.488	2.50	5	04/19/2017 05:42	WG971582
trans-1,3-Dichloropropene	U		1.11	2.50	5	04/19/2017 05:42	WG971582
trans-1,4-Dichloro-2-butene	U		1.28	25.0	5	04/19/2017 05:42	WG971582
2,2-Dichloropropane	U		0.464	2.50	5	04/19/2017 05:42	WG971582
Di-isopropyl ether	U		0.462	2.50	5	04/19/2017 05:42	WG971582
Ethylbenzene	U		0.790	2.50	5	04/19/2017 05:42	WG971582
Hexachloro-1,3-butadiene	U		0.785	5.00	5	04/19/2017 05:42	WG971582
2-Hexanone	U		3.78	12.5	5	04/19/2017 05:42	WG971582
n-Hexane	U		1.52	5.00	5	04/19/2017 05:42	WG971582
Iodomethane	U	VJ J4	18.8	125	50	04/20/2017 00:36	WG971582
Isopropylbenzene	U		0.630	2.50	5	04/19/2017 05:42	WG971582
p-Isopropyltoluene	U		0.690	2.50	5	04/19/2017 05:42	WG971582
2-Butanone (MEK)	U		6.40	12.5	5	04/19/2017 05:42	WG971582
Methylene Chloride	U		5.35	12.5	5	04/19/2017 05:42	WG971582
4-Methyl-2-pentanone (MIBK)	U		4.12	12.5	5	04/19/2017 05:42	WG971582
Methyl tert-butyl ether	U		0.510	2.50	5	04/19/2017 05:42	WG971582
Naphthalene	1.42	J J	0.870	2.50	5	04/19/2017 05:42	WG971582
n-Propylbenzene	U		0.810	2.50	5	04/19/2017 05:42	WG971582
Styrene	U		0.585	2.50	5	04/19/2017 05:42	WG971582
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	04/19/2017 05:42	WG971582
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	04/19/2017 05:42	WG971582
Tetrachloroethene	194		0.995	2.50	5	04/19/2017 05:42	WG971582
Toluene	U		2.06	5.00	5	04/19/2017 05:42	WG971582
1,2,3-Trichlorobenzene	U		0.820	2.50	5	04/19/2017 05:42	WG971582
1,2,4-Trichlorobenzene	U		1.78	2.50	5	04/19/2017 05:42	WG971582
1,1,1-Trichloroethane	U		0.470	2.50	5	04/19/2017 05:42	WG971582
1,1,2-Trichloroethane	U		0.930	2.50	5	04/19/2017 05:42	WG971582
Trichloroethene	492		0.765	2.50	5	04/19/2017 05:42	WG971582
Trichlorofluoromethane	U		0.650	2.50	5	04/19/2017 05:42	WG971582
1,2,3-Trichloropropane	U		1.24	12.5	5	04/19/2017 05:42	WG971582
1,2,4-Trimethylbenzene	U		0.615	2.50	5	04/19/2017 05:42	WG971582
1,2,3-Trimethylbenzene	U		0.370	2.50	5	04/19/2017 05:42	WG971582
1,3,5-Trimethylbenzene	U		0.620	2.50	5	04/19/2017 05:42	WG971582
Vinyl acetate	U		3.22	12.5	5	04/19/2017 05:42	WG971582
Vinyl chloride	0.885	J J	0.590	2.50	5	04/19/2017 05:42	WG971582
Xylenes, Total	U		1.58	7.50	5	04/19/2017 05:42	WG971582
(S) Toluene-d8	102			80.0-120		04/19/2017 05:42	WG971582
(S) Toluene-d8	103			80.0-120		04/20/2017 00:36	WG971582
(S) Dibromofluoromethane	105			76.0-123		04/19/2017 05:42	WG971582
(S) Dibromofluoromethane	110			76.0-123		04/20/2017 00:36	WG971582
(S) 4-Bromofluorobenzene	95.7			80.0-120		04/19/2017 05:42	WG971582
(S) 4-Bromofluorobenzene	102			80.0-120		04/20/2017 00:36	WG971582

CP

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

9c  
4/25/17



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L902977  
Samples Received: 04/15/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.



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# SAMPLE SUMMARY



MW106-041417 L902977-01 GW

Collected by  
Chris D

Collected date/time  
04/14/17 14:15

Received date/time  
04/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG971339	1	04/18/17 09:37	04/18/17 09:37	AMC
Wet Chemistry by Method 9056A	WG970796	1	04/15/17 15:21	04/15/17 15:21	MCG
Wet Chemistry by Method 9060A	WG971114	10	04/17/17 15:16	04/17/17 15:16	SJM
Metals (ICPMS) by Method 6020	WG970972	1	04/17/17 19:24	04/18/17 11:30	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG971361	1	04/18/17 12:02	04/18/17 12:02	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG974106	1	04/26/17 23:40	04/26/17 23:40	LRL

<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



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.

Brian Ford  
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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	309000		2710	20000	1	04/18/2017 09:37	<a href="#">WG971339</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	28700		51.9	1000	1	04/15/2017 15:21	<a href="#">WG970796</a>
Nitrate	U		22.7	100	1	04/15/2017 15:21	<a href="#">WG970796</a>
Sulfate	17900		77.4	5000	1	04/15/2017 15:21	<a href="#">WG970796</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	5930	J	1020	10000	10	04/17/2017 15:16	<a href="#">WG971114</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	14100		15.0	100	1	04/18/2017 11:30	<a href="#">WG970972</a>
Manganese	1080		0.250	5.00	1	04/18/2017 11:30	<a href="#">WG970972</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	79.5		0.287	0.678	1	04/18/2017 12:02	<a href="#">WG971361</a>
Ethane	U		0.296	1.29	1	04/18/2017 12:02	<a href="#">WG971361</a>
Ethene	2.62		0.422	1.27	1	04/18/2017 12:02	<a href="#">WG971361</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.53	J J4	1.05	25.0	1	04/26/2017 23:40	<a href="#">WG974106</a>
Acrylonitrile	U		0.873	2.50	1	04/26/2017 23:40	<a href="#">WG974106</a>
Benzene	U		0.0896	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Bromobenzene	U		0.133	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Bromodichloromethane	U		0.0800	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Bromochloromethane	U		0.145	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Bromoform	U		0.186	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Bromomethane	U		0.157	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
n-Butylbenzene	U		0.143	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
sec-Butylbenzene	U		0.134	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
tert-Butylbenzene	U		0.183	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Carbon disulfide	0.641		0.101	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Carbon tetrachloride	U		0.159	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Chlorobenzene	U		0.140	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Chlorodibromomethane	U		0.128	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Chloroethane	U		0.141	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Chloroform	U		0.0860	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Chloromethane	U		0.153	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
2-Chlorotoluene	U		0.111	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/26/2017 23:40	<a href="#">WG974106</a>
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>
Dibromomethane	U		0.117	0.500	1	04/26/2017 23:40	<a href="#">WG974106</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 04/14/17 14:15

L902977

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2017 23:40	WG974106	<sup>1</sup> Cp
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2017 23:40	WG974106	<sup>2</sup> Tc
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2017 23:40	WG974106	
Dichlorodifluoromethane	U		0.127	0.500	1	04/26/2017 23:40	WG974106	<sup>3</sup> Ss
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2017 23:40	WG974106	
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2017 23:40	WG974106	<sup>4</sup> Cn
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2017 23:40	WG974106	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	04/26/2017 23:40	WG974106	
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2017 23:40	WG974106	<sup>5</sup> Sr
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2017 23:40	WG974106	
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2017 23:40	WG974106	<sup>6</sup> Qc
1,3-Dichloropropane	U		0.147	0.500	1	04/26/2017 23:40	WG974106	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2017 23:40	WG974106	
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2017 23:40	WG974106	<sup>7</sup> Gl
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2017 23:40	WG974106	
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2017 23:40	WG974106	<sup>8</sup> Al
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2017 23:40	WG974106	
Ethylbenzene	U		0.158	0.500	1	04/26/2017 23:40	WG974106	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2017 23:40	WG974106	<sup>9</sup> Sc
2-Hexanone	U		0.757	2.50	1	04/26/2017 23:40	WG974106	
n-Hexane	U		0.305	1.00	1	04/26/2017 23:40	WG974106	
Iodomethane	U		0.377	2.50	1	04/26/2017 23:40	WG974106	
Isopropylbenzene	U		0.126	0.500	1	04/26/2017 23:40	WG974106	
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2017 23:40	WG974106	
2-Butanone (MEK)	U		1.28	2.50	1	04/26/2017 23:40	WG974106	
Methylene Chloride	U		1.07	2.50	1	04/26/2017 23:40	WG974106	
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/26/2017 23:40	WG974106	
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2017 23:40	WG974106	
Naphthalene	U		0.174	0.500	1	04/26/2017 23:40	WG974106	
n-Propylbenzene	U		0.162	0.500	1	04/26/2017 23:40	WG974106	
Styrene	U		0.117	0.500	1	04/26/2017 23:40	WG974106	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2017 23:40	WG974106	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2017 23:40	WG974106	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2017 23:40	WG974106	
Tetrachloroethene	U		0.199	0.500	1	04/26/2017 23:40	WG974106	
Toluene	U		0.412	1.00	1	04/26/2017 23:40	WG974106	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2017 23:40	WG974106	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2017 23:40	WG974106	
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2017 23:40	WG974106	
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2017 23:40	WG974106	
Trichloroethene	U		0.153	0.500	1	04/26/2017 23:40	WG974106	
Trichlorofluoromethane	U		0.130	0.500	1	04/26/2017 23:40	WG974106	
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2017 23:40	WG974106	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2017 23:40	WG974106	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2017 23:40	WG974106	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2017 23:40	WG974106	
Vinyl acetate	U	J4	0.645	2.50	1	04/26/2017 23:40	WG974106	
Vinyl chloride	U		0.118	0.500	1	04/26/2017 23:40	WG974106	
Xylenes, Total	U		0.316	1.50	1	04/26/2017 23:40	WG974106	
(S) Toluene-d8	107			80.0-120		04/26/2017 23:40	WG974106	
(S) Dibromofluoromethane	111			76.0-123		04/26/2017 23:40	WG974106	
(S) 4-Bromofluorobenzene	96.7			80.0-120		04/26/2017 23:40	WG974106	



Method Blank (MB)

(MB) R3211720-1 04/18/17 08:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity	U		2710	20000

<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

L902903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902903-01 04/18/17 08:20 • (DUP) R3211720-2 04/18/17 08:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	460000	489000	1	6.00		20

L903033-08 Original Sample (OS) • Duplicate (DUP)

(OS) L903033-08 04/18/17 11:08 • (DUP) R3211720-5 04/18/17 11:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	39100	37700	1	4.00		20

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

(LCS) R3211720-3 04/18/17 09:14 • (LCSD) R3211720-4 04/18/17 10:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	97900	98100	98.0	98.0	85.0-115			0.000	20



Method Blank (MB)

(MB) R3211274-1 04/15/17 05:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L902943-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902943-01 04/15/17 13:03 • (DUP) R3211274-4 04/15/17 13:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	357000	354000	10	1		15
Nitrate	64000	70800	10	10		15
Sulfate	946000	946000	10	0		15

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

(LCS) R3211274-2 04/15/17 06:07 • (LCSD) R3211274-3 04/15/17 06:22

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39600	39700	99	99	80-120			0	15
Nitrate	8000	8120	8120	102	102	80-120			0	15
Sulfate	40000	39800	39800	100	99	80-120			0	15

L902977-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902977-01 04/15/17 15:21 • (MS) R3211274-5 04/15/17 15:37 • (MSD) R3211274-6 04/15/17 15:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	28700	78200	78500	99	99	1	80-120			0	15
Nitrate	5000	U	5030	5040	101	101	1	80-120			0	15
Sulfate	50000	17900	68100	68100	100	100	1	80-120			0	15



Method Blank (MB)

(MB) R3211244-1 04/17/17 09:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

<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

L902826-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902826-01 04/17/17 11:46 • (DUP) R3211244-3 04/17/17 12:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	5220	4720	1	10		20

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

(LCS) R3211244-2 04/17/17 11:26 • (LCSD) R3211244-4 04/17/17 13:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74800	77500	100	103	85-115			4	20

L902996-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902996-01 04/17/17 15:36 • (MS) R3211244-5 04/17/17 15:56 • (MSD) R3211244-6 04/17/17 16:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1980	54400	54600	105	105	1	80-120			0	20



Method Blank (MB)

(MB) R3211509-1 04/18/17 10:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	0.274	J	0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3211509-2 04/18/17 10:38 • (LCSD) R3211509-3 04/18/17 10:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5040	5080	101	102	80-120			1	20
Manganese	50.0	49.2	48.9	98	98	80-120			1	20

5 Sr

6 Qc

L902939-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902939-02 04/18/17 10:45 • (MS) R3211509-5 04/18/17 10:52 • (MSD) R3211509-6 04/18/17 10:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	ND	4910	5010	98	100	1	75-125			2	20
Manganese	50.0	246	290	291	88	90	1	75-125			0	20

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3211767-1 04/18/17 11:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L902972-01 Original Sample (OS) • Duplicate (DUP)

(OS) L902972-01 04/18/17 11:45 • (DUP) R3211767-2 04/18/17 14:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L903022-09 Original Sample (OS) • Duplicate (DUP)

(OS) L903022-09 04/18/17 15:21 • (DUP) R3211767-3 04/18/17 18:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	2730	3140	1	14.1	E	20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

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

(LCS) R3211767-4 04/18/17 18:24 • (LCSD) R3211767-5 04/18/17 18:40

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	66.2	66.3	97.7	97.8	70.0-130			0.0800	20
Ethane	129	118	118	91.3	91.4	70.0-130			0.180	20
Ethene	127	115	115	90.8	90.7	70.0-130			0.110	20



Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

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



Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	108			80.0-120
(S) Dibromofluoromethane	107			76.0-123
(S) 4-Bromofluorobenzene	96.3			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) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	230	205	184	164	10.0-160	J4	J4	11.6	23
Acrylonitrile	125	148	139	119	111	60.0-142			6.33	20
Benzene	25.0	26.8	26.7	107	107	69.0-123			0.350	20
Bromobenzene	25.0	23.2	23.9	92.8	95.7	79.0-120			3.03	20
Bromodichloromethane	25.0	24.7	24.8	98.9	99.2	76.0-120			0.280	20
Bromochloromethane	25.0	23.8	23.8	95.0	95.0	76.0-122			0.0300	20
Bromoform	25.0	22.6	22.6	90.5	90.4	67.0-132			0.0700	20
Bromomethane	25.0	26.5	26.8	106	107	18.0-160			0.970	20
n-Butylbenzene	25.0	22.5	22.8	89.9	91.2	72.0-126			1.53	20
sec-Butylbenzene	25.0	21.8	22.3	87.2	89.3	74.0-121			2.31	20
tert-Butylbenzene	25.0	21.4	21.8	85.7	87.3	75.0-122			1.83	20
Carbon disulfide	25.0	24.9	24.9	99.5	99.4	55.0-127			0.0600	20
Carbon tetrachloride	25.0	27.4	27.3	110	109	63.0-122			0.530	20
Chlorobenzene	25.0	21.9	22.5	87.6	90.1	79.0-121			2.87	20
Chlorodibromomethane	25.0	22.1	22.3	88.6	89.0	75.0-125			0.500	20
Chloroethane	25.0	27.3	27.6	109	110	47.0-152			1.10	20
Chloroform	25.0	25.8	25.7	103	103	72.0-121			0.420	20
Chloromethane	25.0	28.7	28.7	115	115	48.0-139			0.0200	20
2-Chlorotoluene	25.0	22.7	23.4	90.8	93.6	74.0-122			3.01	20
4-Chlorotoluene	25.0	21.9	22.5	87.5	90.0	79.0-120			2.78	20
1,2-Dibromo-3-Chloropropane	25.0	24.2	23.9	96.8	95.6	64.0-127			1.23	20
1,2-Dibromoethane	25.0	23.1	23.0	92.5	92.1	77.0-123			0.390	20
Dibromomethane	25.0	25.5	24.8	102	99.1	78.0-120			2.86	20
1,2-Dichlorobenzene	25.0	22.6	23.0	90.3	92.2	80.0-120			2.10	20
1,3-Dichlorobenzene	25.0	22.3	22.7	89.3	90.9	72.0-123			1.85	20
1,4-Dichlorobenzene	25.0	23.5	23.9	94.0	95.7	77.0-120			1.77	20
Dichlorodifluoromethane	25.0	25.8	24.6	103	98.5	49.0-155			4.53	20
1,1-Dichloroethane	25.0	26.4	26.3	106	105	70.0-126			0.540	20
1,2-Dichloroethane	25.0	26.3	25.7	105	103	67.0-126			2.30	20
1,1-Dichloroethene	25.0	25.0	24.9	100	99.7	64.0-129			0.340	20
cis-1,2-Dichloroethene	25.0	24.6	24.7	98.5	98.7	73.0-120			0.280	20
trans-1,2-Dichloroethene	25.0	24.5	24.4	98.0	97.5	71.0-121			0.490	20
1,2-Dichloropropane	25.0	25.8	26.0	103	104	75.0-125			0.670	20
1,1-Dichloropropene	25.0	25.3	25.1	101	101	71.0-129			0.460	20
1,3-Dichloropropane	25.0	24.1	24.2	96.5	96.6	80.0-121			0.120	20
cis-1,3-Dichloropropene	25.0	24.3	24.6	97.2	98.3	79.0-123			1.16	20
trans-1,3-Dichloropropene	25.0	24.4	24.5	97.6	98.2	74.0-127			0.580	20
trans-1,4-Dichloro-2-butene	25.0	20.6	20.2	82.6	80.9	55.0-134			2.09	20
2,2-Dichloropropane	25.0	19.9	19.7	79.7	78.7	60.0-125			1.23	20
Di-isopropyl ether	25.0	29.1	28.6	116	114	59.0-133			1.69	20

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) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	22.7	23.4	90.8	93.7	77.0-120			3.10	20
Hexachloro-1,3-butadiene	25.0	21.2	21.6	84.8	86.2	64.0-131			1.73	20
2-Hexanone	125	164	153	131	123	58.0-147			6.47	20
n-Hexane	25.0	23.5	23.4	94.0	93.8	56.0-124			0.280	20
Iodomethane	125	121	122	96.6	97.6	57.0-140			1.11	20
Isopropylbenzene	25.0	22.0	22.7	88.2	90.9	75.0-120			2.99	20
p-Isopropyltoluene	25.0	21.7	22.0	86.6	88.1	74.0-126			1.72	20
2-Butanone (MEK)	125	184	169	148	135	37.0-158			9.01	20
Methylene Chloride	25.0	25.8	25.6	103	103	66.0-121			0.560	20
4-Methyl-2-pentanone (MIBK)	125	153	146	122	117	59.0-143			4.80	20
Methyl tert-butyl ether	25.0	27.8	27.0	111	108	64.0-123			3.06	20
Naphthalene	25.0	23.9	23.5	95.8	94.2	62.0-128			1.70	20
n-Propylbenzene	25.0	22.3	22.8	89.1	91.1	79.0-120			2.14	20
Styrene	25.0	23.1	23.8	92.5	95.4	78.0-124			3.01	20
1,1,1,2-Tetrachloroethane	25.0	21.4	22.2	85.6	88.7	75.0-122			3.54	20
1,1,2,2-Tetrachloroethane	25.0	21.0	20.4	84.0	81.8	71.0-122			2.71	20
1,1,2-Trichlorotrifluoroethane	25.0	23.0	23.2	91.8	92.8	61.0-136			1.06	20
Tetrachloroethene	25.0	21.4	21.9	85.5	87.4	70.0-127			2.27	20
Toluene	25.0	24.7	25.3	98.9	101	77.0-120			2.23	20
1,2,3-Trichlorobenzene	25.0	21.9	22.1	87.8	88.5	61.0-133			0.820	20
1,2,4-Trichlorobenzene	25.0	21.5	21.7	85.9	87.0	69.0-129			1.26	20
1,1,1-Trichloroethane	25.0	24.6	24.4	98.3	97.4	68.0-122			0.890	20
1,1,2-Trichloroethane	25.0	24.1	23.9	96.4	95.7	78.0-120			0.700	20
Trichloroethene	25.0	25.1	25.4	100	102	78.0-120			1.04	20
Trichlorofluoromethane	25.0	25.1	24.8	100	99.2	56.0-137			1.14	20
1,2,3-Trichloropropane	25.0	23.2	23.1	92.6	92.5	72.0-124			0.150	20
1,2,4-Trimethylbenzene	25.0	21.5	22.1	86.1	88.5	75.0-120			2.73	20
1,2,3-Trimethylbenzene	25.0	23.9	24.3	95.5	97.2	75.0-120			1.83	20
1,3,5-Trimethylbenzene	25.0	21.8	22.4	87.4	89.6	75.0-120			2.51	20
Vinyl acetate	125	50.9	49.2	40.7	39.4	46.0-160	J4	J4	3.32	20
Vinyl chloride	25.0	28.4	28.4	113	114	64.0-133			0.0700	20
Xylenes, Total	75.0	68.2	70.3	90.9	93.7	77.0-120			3.03	20
(S) Toluene-d8				107	107	80.0-120				
(S) Dibromofluoromethane				107	105	76.0-123				
(S) 4-Bromofluorobenzene				97.1	98.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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.
J4	The associated batch QC was outside the established quality control range for accuracy.

<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		

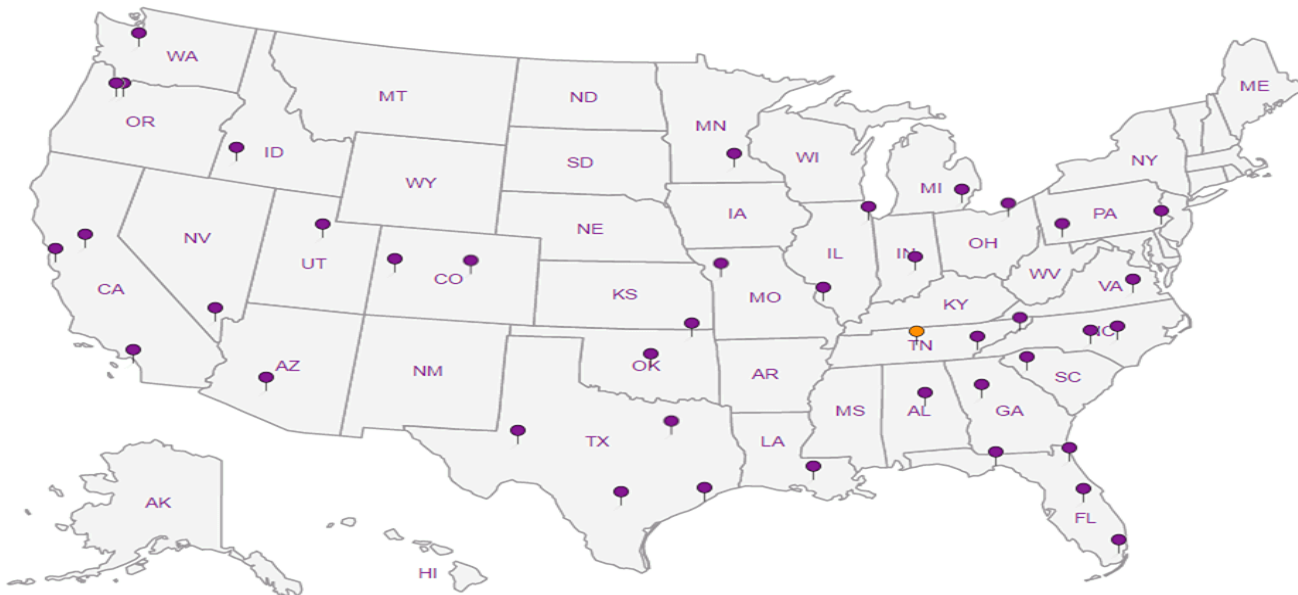
## Third Party & Federal Accreditations

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.**





## MEMORANDUM

**TO:** Project File **DATE:** May 9, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle, WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** April 14, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L902977

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 14, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020 (ICP-MS);
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L902977. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L902977 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

The sample was collected and analyzed as requested.

### **Sample Collection and Preservation**

Sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.8 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.



## **Method Blank Results**

### *USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) are not detected in the method blank at or above the reported detection limits (RDLs).

### *Method RSK-175:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) are not detected in the method blank at or above the RDL. No qualifications of the data are made due to the results of the method blank analysis.

### *USEPA Method 6020:*

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) are not detected in the method blank at or above the RDL with the following discussion:

- A low level manganese result was reported in the method blank between the RDL and MDL. No action was necessary as associated sample result for manganese is significantly greater than the manganese detection in the method blank.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (alkalinity, anions, and TOC) are not detected in the method blanks at or above the RDL.

## **Trip Blank Results**

### *USEPA Method 8260C (VOCs):*

A trip blank was not collected.

## **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

## **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

## **Laboratory Duplicate Analyses**

### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*

Laboratory duplicate sample analyses were performed on sample MW106-041417 and on a non-client sample within the analytical batch. Non-client sample/sample duplicate results exceeded the upper limit of the calibration range but no action was taken since it is a non-client sample. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* Laboratory duplicate sample analysis was performed on non-client sample within the analytical batch. The primary/duplicate RPDs for alkalinity analysis are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate sample analysis was performed on non-client sample within the analytical batch. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analysis are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* Laboratory duplicate sample analysis was performed non-client sample within the analytical batch. The primary/duplicate RPDs for TOC analysis are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

*USEPA Method 8260C (VOCs):*

The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

*USEPA Method 8260C (VOCs):*

LCS/LCSDs were analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussions:

- LCS/LCSD (Batch WG974106) compounds acetone and vinyl acetate percent recoveries are outside of laboratory acceptance criteria and qualified by the laboratory (J4). **Acetone was detected at a low level in sample MW106-041417 and is estimated (J) due to elevated LCS/LCSD recoveries. Vinyl acetate was not detected in sample MW106-041417 and the result is estimated (UJ) due to low LCS/LCSD recoveries.**

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for iron and manganese are within the laboratory control criteria for water.

*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPDs for TOC are within the laboratory control criteria for water.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C (VOCs):*

Matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on VOC samples. Refer to LCS/LCSD results for additional information.

*Method RSK-175:*

MS/MSD analysis was not performed on the dissolved gas samples. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analysis was performed on sample MW106-041417. MS/MSD % Rs and RPDs for anions are within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC are within the laboratory control criteria for water.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group are acceptable for the project.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L904441  
Samples Received: 04/22/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford  
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.





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# SAMPLE SUMMARY



MW105-042117 L904441-01 GW

Collected by: Chris D  
 Collected date/time: 04/21/17 12:15  
 Received date/time: 04/22/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG974106	1	04/26/17 23:55	04/26/17 23:55	LRL

<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



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.

Brian Ford  
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



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.44	J J4	1.05	25.0	1	04/26/2017 23:55	WG974106
Acrylonitrile	U		0.873	2.50	1	04/26/2017 23:55	WG974106
Benzene	U		0.0896	0.500	1	04/26/2017 23:55	WG974106
Bromobenzene	U		0.133	0.500	1	04/26/2017 23:55	WG974106
Bromodichloromethane	U		0.0800	0.500	1	04/26/2017 23:55	WG974106
Bromochloromethane	U		0.145	0.500	1	04/26/2017 23:55	WG974106
Bromoform	U		0.186	0.500	1	04/26/2017 23:55	WG974106
Bromomethane	U		0.157	0.500	1	04/26/2017 23:55	WG974106
n-Butylbenzene	U		0.143	0.500	1	04/26/2017 23:55	WG974106
sec-Butylbenzene	U		0.134	0.500	1	04/26/2017 23:55	WG974106
tert-Butylbenzene	U		0.183	0.500	1	04/26/2017 23:55	WG974106
Carbon disulfide	0.192	J	0.101	0.500	1	04/26/2017 23:55	WG974106
Carbon tetrachloride	U		0.159	0.500	1	04/26/2017 23:55	WG974106
Chlorobenzene	U		0.140	0.500	1	04/26/2017 23:55	WG974106
Chlorodibromomethane	U		0.128	0.500	1	04/26/2017 23:55	WG974106
Chloroethane	U		0.141	0.500	1	04/26/2017 23:55	WG974106
Chloroform	U		0.0860	0.500	1	04/26/2017 23:55	WG974106
Chloromethane	U		0.153	0.500	1	04/26/2017 23:55	WG974106
2-Chlorotoluene	U		0.111	0.500	1	04/26/2017 23:55	WG974106
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2017 23:55	WG974106
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/26/2017 23:55	WG974106
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2017 23:55	WG974106
Dibromomethane	U		0.117	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2017 23:55	WG974106
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2017 23:55	WG974106
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2017 23:55	WG974106
Dichlorodifluoromethane	U		0.127	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2017 23:55	WG974106
cis-1,2-Dichloroethene	0.155	J	0.0933	0.500	1	04/26/2017 23:55	WG974106
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2017 23:55	WG974106
1,3-Dichloropropane	U		0.147	0.500	1	04/26/2017 23:55	WG974106
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2017 23:55	WG974106
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2017 23:55	WG974106
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2017 23:55	WG974106
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2017 23:55	WG974106
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2017 23:55	WG974106
Ethylbenzene	U		0.158	0.500	1	04/26/2017 23:55	WG974106
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2017 23:55	WG974106
2-Hexanone	U		0.757	2.50	1	04/26/2017 23:55	WG974106
n-Hexane	U		0.305	1.00	1	04/26/2017 23:55	WG974106
Iodomethane	U		0.377	2.50	1	04/26/2017 23:55	WG974106
Isopropylbenzene	U		0.126	0.500	1	04/26/2017 23:55	WG974106
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2017 23:55	WG974106
2-Butanone (MEK)	U		1.28	2.50	1	04/26/2017 23:55	WG974106
Methylene Chloride	U		1.07	2.50	1	04/26/2017 23:55	WG974106
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/26/2017 23:55	WG974106
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2017 23:55	WG974106
Naphthalene	U		0.174	0.500	1	04/26/2017 23:55	WG974106
n-Propylbenzene	U		0.162	0.500	1	04/26/2017 23:55	WG974106
Styrene	U		0.117	0.500	1	04/26/2017 23:55	WG974106
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2017 23:55	WG974106
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2017 23:55	WG974106

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Tetrachloroethene	U		0.199	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Toluene	0.544	J	0.412	1.00	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Trichloroethene	U		0.153	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Trichlorofluoromethane	U		0.130	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Vinyl acetate	U	J4	0.645	2.50	1	04/26/2017 23:55	<a href="#">WG974106</a>
Vinyl chloride	1.95		0.118	0.500	1	04/26/2017 23:55	<a href="#">WG974106</a>
Xylenes, Total	U		0.316	1.50	1	04/26/2017 23:55	<a href="#">WG974106</a>
(S) Toluene-d8	107			80.0-120		04/26/2017 23:55	<a href="#">WG974106</a>
(S) Dibromofluoromethane	109			76.0-123		04/26/2017 23:55	<a href="#">WG974106</a>
(S) 4-Bromofluorobenzene	95.1			80.0-120		04/26/2017 23:55	<a href="#">WG974106</a>

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





Method Blank (MB)

(MB) R3213841-4 04/26/17 17:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	2.50
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	0.500
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	0.500
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	1.00
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	0.500
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

<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) R3213841-4 04/26/17 17:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	2.50
n-Hexane	U		0.305	1.00
Iodomethane	U		0.377	2.50
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	2.50
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	0.500
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	0.500
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	2.50
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	108			80.0-120
(S) Dibromofluoromethane	107			76.0-123
(S) 4-Bromofluorobenzene	96.3			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) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	230	205	184	164	10.0-160	J4	J4	11.6	23
Acrylonitrile	125	148	139	119	111	60.0-142			6.33	20
Benzene	25.0	26.8	26.7	107	107	69.0-123			0.350	20
Bromobenzene	25.0	23.2	23.9	92.8	95.7	79.0-120			3.03	20
Bromodichloromethane	25.0	24.7	24.8	98.9	99.2	76.0-120			0.280	20
Bromochloromethane	25.0	23.8	23.8	95.0	95.0	76.0-122			0.0300	20
Bromoform	25.0	22.6	22.6	90.5	90.4	67.0-132			0.0700	20
Bromomethane	25.0	26.5	26.8	106	107	18.0-160			0.970	20
n-Butylbenzene	25.0	22.5	22.8	89.9	91.2	72.0-126			1.53	20
sec-Butylbenzene	25.0	21.8	22.3	87.2	89.3	74.0-121			2.31	20
tert-Butylbenzene	25.0	21.4	21.8	85.7	87.3	75.0-122			1.83	20
Carbon disulfide	25.0	24.9	24.9	99.5	99.4	55.0-127			0.0600	20
Carbon tetrachloride	25.0	27.4	27.3	110	109	63.0-122			0.530	20
Chlorobenzene	25.0	21.9	22.5	87.6	90.1	79.0-121			2.87	20
Chlorodibromomethane	25.0	22.1	22.3	88.6	89.0	75.0-125			0.500	20
Chloroethane	25.0	27.3	27.6	109	110	47.0-152			1.10	20
Chloroform	25.0	25.8	25.7	103	103	72.0-121			0.420	20
Chloromethane	25.0	28.7	28.7	115	115	48.0-139			0.0200	20
2-Chlorotoluene	25.0	22.7	23.4	90.8	93.6	74.0-122			3.01	20
4-Chlorotoluene	25.0	21.9	22.5	87.5	90.0	79.0-120			2.78	20
1,2-Dibromo-3-Chloropropane	25.0	24.2	23.9	96.8	95.6	64.0-127			1.23	20
1,2-Dibromoethane	25.0	23.1	23.0	92.5	92.1	77.0-123			0.390	20
Dibromomethane	25.0	25.5	24.8	102	99.1	78.0-120			2.86	20
1,2-Dichlorobenzene	25.0	22.6	23.0	90.3	92.2	80.0-120			2.10	20
1,3-Dichlorobenzene	25.0	22.3	22.7	89.3	90.9	72.0-123			1.85	20
1,4-Dichlorobenzene	25.0	23.5	23.9	94.0	95.7	77.0-120			1.77	20
Dichlorodifluoromethane	25.0	25.8	24.6	103	98.5	49.0-155			4.53	20
1,1-Dichloroethane	25.0	26.4	26.3	106	105	70.0-126			0.540	20
1,2-Dichloroethane	25.0	26.3	25.7	105	103	67.0-126			2.30	20
1,1-Dichloroethene	25.0	25.0	24.9	100	99.7	64.0-129			0.340	20
cis-1,2-Dichloroethene	25.0	24.6	24.7	98.5	98.7	73.0-120			0.280	20
trans-1,2-Dichloroethene	25.0	24.5	24.4	98.0	97.5	71.0-121			0.490	20
1,2-Dichloropropane	25.0	25.8	26.0	103	104	75.0-125			0.670	20
1,1-Dichloropropene	25.0	25.3	25.1	101	101	71.0-129			0.460	20
1,3-Dichloropropane	25.0	24.1	24.2	96.5	96.6	80.0-121			0.120	20
cis-1,3-Dichloropropene	25.0	24.3	24.6	97.2	98.3	79.0-123			1.16	20
trans-1,3-Dichloropropene	25.0	24.4	24.5	97.6	98.2	74.0-127			0.580	20
trans-1,4-Dichloro-2-butene	25.0	20.6	20.2	82.6	80.9	55.0-134			2.09	20
2,2-Dichloropropane	25.0	19.9	19.7	79.7	78.7	60.0-125			1.23	20
Di-isopropyl ether	25.0	29.1	28.6	116	114	59.0-133			1.69	20

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) R3213841-1 04/26/17 16:26 • (LCSD) R3213841-3 04/26/17 16:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	22.7	23.4	90.8	93.7	77.0-120			3.10	20
Hexachloro-1,3-butadiene	25.0	21.2	21.6	84.8	86.2	64.0-131			1.73	20
2-Hexanone	125	164	153	131	123	58.0-147			6.47	20
n-Hexane	25.0	23.5	23.4	94.0	93.8	56.0-124			0.280	20
Iodomethane	125	121	122	96.6	97.6	57.0-140			1.11	20
Isopropylbenzene	25.0	22.0	22.7	88.2	90.9	75.0-120			2.99	20
p-Isopropyltoluene	25.0	21.7	22.0	86.6	88.1	74.0-126			1.72	20
2-Butanone (MEK)	125	184	169	148	135	37.0-158			9.01	20
Methylene Chloride	25.0	25.8	25.6	103	103	66.0-121			0.560	20
4-Methyl-2-pentanone (MIBK)	125	153	146	122	117	59.0-143			4.80	20
Methyl tert-butyl ether	25.0	27.8	27.0	111	108	64.0-123			3.06	20
Naphthalene	25.0	23.9	23.5	95.8	94.2	62.0-128			1.70	20
n-Propylbenzene	25.0	22.3	22.8	89.1	91.1	79.0-120			2.14	20
Styrene	25.0	23.1	23.8	92.5	95.4	78.0-124			3.01	20
1,1,1,2-Tetrachloroethane	25.0	21.4	22.2	85.6	88.7	75.0-122			3.54	20
1,1,2,2-Tetrachloroethane	25.0	21.0	20.4	84.0	81.8	71.0-122			2.71	20
1,1,2-Trichlorotrifluoroethane	25.0	23.0	23.2	91.8	92.8	61.0-136			1.06	20
Tetrachloroethene	25.0	21.4	21.9	85.5	87.4	70.0-127			2.27	20
Toluene	25.0	24.7	25.3	98.9	101	77.0-120			2.23	20
1,2,3-Trichlorobenzene	25.0	21.9	22.1	87.8	88.5	61.0-133			0.820	20
1,2,4-Trichlorobenzene	25.0	21.5	21.7	85.9	87.0	69.0-129			1.26	20
1,1,1-Trichloroethane	25.0	24.6	24.4	98.3	97.4	68.0-122			0.890	20
1,1,2-Trichloroethane	25.0	24.1	23.9	96.4	95.7	78.0-120			0.700	20
Trichloroethene	25.0	25.1	25.4	100	102	78.0-120			1.04	20
Trichlorofluoromethane	25.0	25.1	24.8	100	99.2	56.0-137			1.14	20
1,2,3-Trichloropropane	25.0	23.2	23.1	92.6	92.5	72.0-124			0.150	20
1,2,4-Trimethylbenzene	25.0	21.5	22.1	86.1	88.5	75.0-120			2.73	20
1,2,3-Trimethylbenzene	25.0	23.9	24.3	95.5	97.2	75.0-120			1.83	20
1,3,5-Trimethylbenzene	25.0	21.8	22.4	87.4	89.6	75.0-120			2.51	20
Vinyl acetate	125	50.9	49.2	40.7	39.4	46.0-160	J4	J4	3.32	20
Vinyl chloride	25.0	28.4	28.4	113	114	64.0-133			0.0700	20
Xylenes, Total	75.0	68.2	70.3	90.9	93.7	77.0-120			3.03	20
(S) Toluene-d8				107	107	80.0-120				
(S) Dibromofluoromethane				107	105	76.0-123				
(S) 4-Bromofluorobenzene				97.1	98.9	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Abbreviations and Definitions

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

J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

<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		

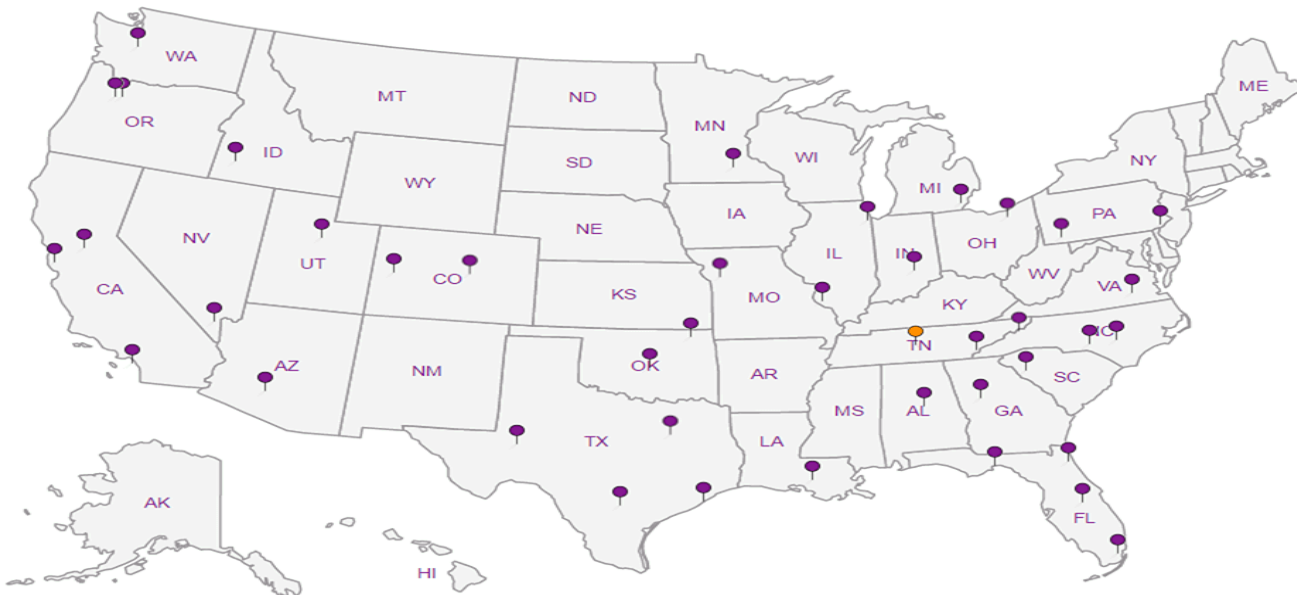
## Third Party & Federal Accreditations


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.**



<b>PES Environmental, Inc.- WA</b> 1215 Fourth Ave., Suite 1350 Seattle, WA 98161		Billing Information: <b>Attn: Accounts Payable</b> 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161		Pres Chk		Analysis / Container / Preservative						Chain of Custody Page <u>    </u> of <u>    </u>		
Report to: <b>Bill Haldeman</b>		Email To: <b>bhaldeman@pesenv.com</b>										 YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859		
Project Description: <b>American Linen Supply</b>		City/State Collected: <b>Seattle, WA</b>										L # <b>904441</b> <b>G081</b>		
Phone: <b>206-529-3980</b> Fax: <b>206-529-3985</b>		Client Project # <b>1413.001.02.002</b>		Lab Project # <b>PESENVSWA-141300102</b>								Acctnum: <b>PESENVSWA</b> Template: <b>T121414</b> Prelogin: <b>P592684</b> TSR: <b>110 - Brian Ford</b> PB: <b>3-13-176</b>		
Collected by (print): <b>Chris DeBoer</b>		Site/Facility ID # <b>700 DEXTER AVE N SEATTLE</b>		P.O. #								Shipped Via: <b>FedEX Ground</b>		
Collected by (signature): <b>Chris DeBoer</b>		<b>Rush?</b> (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #								Remarks      Sample # (lab only)		
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/> X		Date Results Needed		No. of Cntrs										
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	* NO3,Cl,SO4,Aik 250mlHDPE-NoPres	NWTPhGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl		
<b>MW105-042117</b>		<b>Grab</b>	<b>GW</b>	<b>131</b>	<b>4/21/17</b>	<b>1215</b>							<b>4</b>	
			<b>GW</b>											
			<b>GW</b>											
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			<b>GW</b>											
* Matrix: SS - Soil   AIR - Air   F - Filter GW - Groundwater   B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____		Remarks: *Nitrate has a 48 hour hold time		Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # <b>7176 9011 7258</b>		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				
Relinquished by: (Signature) <b>Chris DeBoer</b>		Date: <b>4/21/17</b>	Time: <b>1500</b>	Received by: (Signature)		Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		HCL/MeOH TBR		Bottles Received: <b>4</b>		If preservation required by Login: Date/Time		
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)		Temp: <b>0W 5C</b>		Date: <b>4/21/17</b>		Time: <b>0845</b>		Hold:		
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature)		Date:		Time:		Hold:		Condition: NCF <input checked="" type="checkbox"/> OK		

## MEMORANDUM

**TO:** Project File **DATE:** May 9, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** April 21, 2017- Groundwater Sampling  
**LAB:** ESC Lab ID L904441

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One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on April 21, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L904441. This quarterly monitoring round occurred between March 20 and April 21 of 2017. Associated sample data are reported in twelve ESC SDGs (SDGs L897427, L897678, L897952, L898272, L898516, L898812, L899176, L899472, L900217, L901706, L902977 and L904441). The quality assurance review of the sample data associated with SDG L904441 is summarized below.

### **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

### **DATA VALIDATION**

#### **Completeness**

The sample was collected and analyzed as requested.

#### **Sample Collection and Preservation**

The sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and sample were received at 4.2 degrees

Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory reported that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

*USEPA Method 8260C:*

The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required with this deliverable. No discrepancies were noted by the laboratory.

### **Method Blank Results**

*USEPA Method 8260C (VOCs):*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

### **Trip Blank Results**

*USEPA Method 8260C (VOCs):*

A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDG L898516 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

### **Surrogate Recoveries**

*USEPA Method 8260C (VOCs):*

The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

#### *USEPA Method 8260C (VOCs):*

An LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds were within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG974106) compounds acetone and vinyl acetate percent recoveries are outside of laboratory acceptance criteria and qualified by the laboratory (J4).  
**Acetone was detected at a low level in sample MW105-042117 and is estimated (J) due to elevated LCS/LCSD recoveries. Vinyl acetate was not detected in sample MW105-042117 and the result is estimated (UJ) due to low LCS/LCSD recoveries.**

### **Matrix Spike/Matrix Spike Duplicates**

#### *USEPA Method 8260C (VOCs):*

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed on VOCs. Refer to LCS/LCSD results for additional information.

### **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

### **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017)

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.





Collected date/time: 04/21/17 12:15

L904441

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.44	J J4	1.05	25.0	1	04/26/2017 23:55	WG974106
Acrylonitrile	U		0.873	2.50	1	04/26/2017 23:55	WG974106
Benzene	U		0.0896	0.500	1	04/26/2017 23:55	WG974106
Bromobenzene	U		0.133	0.500	1	04/26/2017 23:55	WG974106
Bromodichloromethane	U		0.0800	0.500	1	04/26/2017 23:55	WG974106
Bromochloromethane	U		0.145	0.500	1	04/26/2017 23:55	WG974106
Bromoform	U		0.186	0.500	1	04/26/2017 23:55	WG974106
Bromomethane	U		0.157	0.500	1	04/26/2017 23:55	WG974106
n-Butylbenzene	U		0.143	0.500	1	04/26/2017 23:55	WG974106
sec-Butylbenzene	U		0.134	0.500	1	04/26/2017 23:55	WG974106
tert-Butylbenzene	U		0.183	0.500	1	04/26/2017 23:55	WG974106
Carbon disulfide	0.192	J J	0.101	0.500	1	04/26/2017 23:55	WG974106
Carbon tetrachloride	U		0.159	0.500	1	04/26/2017 23:55	WG974106
Chlorobenzene	U		0.140	0.500	1	04/26/2017 23:55	WG974106
Chlorodibromomethane	U		0.128	0.500	1	04/26/2017 23:55	WG974106
Chloroethane	U		0.141	0.500	1	04/26/2017 23:55	WG974106
Chloroform	U		0.0860	0.500	1	04/26/2017 23:55	WG974106
Chloromethane	U		0.153	0.500	1	04/26/2017 23:55	WG974106
2-Chlorotoluene	U		0.111	0.500	1	04/26/2017 23:55	WG974106
4-Chlorotoluene	U		0.0972	0.500	1	04/26/2017 23:55	WG974106
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	04/26/2017 23:55	WG974106
1,2-Dibromoethane	U		0.193	0.500	1	04/26/2017 23:55	WG974106
Dibromomethane	U		0.117	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichlorobenzene	U		0.101	0.500	1	04/26/2017 23:55	WG974106
1,3-Dichlorobenzene	U		0.130	0.500	1	04/26/2017 23:55	WG974106
1,4-Dichlorobenzene	U		0.121	0.500	1	04/26/2017 23:55	WG974106
Dichlorodifluoromethane	U		0.127	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloroethane	U		0.114	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichloroethane	U		0.108	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloroethene	U		0.188	0.500	1	04/26/2017 23:55	WG974106
cis-1,2-Dichloroethene	0.155	J J	0.0933	0.500	1	04/26/2017 23:55	WG974106
trans-1,2-Dichloroethene	U		0.152	0.500	1	04/26/2017 23:55	WG974106
1,2-Dichloropropane	U		0.190	0.500	1	04/26/2017 23:55	WG974106
1,1-Dichloropropene	U		0.128	0.500	1	04/26/2017 23:55	WG974106
1,3-Dichloropropane	U		0.147	0.500	1	04/26/2017 23:55	WG974106
cis-1,3-Dichloropropene	U		0.0976	0.500	1	04/26/2017 23:55	WG974106
trans-1,3-Dichloropropene	U		0.222	0.500	1	04/26/2017 23:55	WG974106
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	04/26/2017 23:55	WG974106
2,2-Dichloropropane	U		0.0929	0.500	1	04/26/2017 23:55	WG974106
Di-isopropyl ether	U		0.0924	0.500	1	04/26/2017 23:55	WG974106
Ethylbenzene	U		0.158	0.500	1	04/26/2017 23:55	WG974106
Hexachloro-1,3-butadiene	U		0.157	1.00	1	04/26/2017 23:55	WG974106
2-Hexanone	U		0.757	2.50	1	04/26/2017 23:55	WG974106
n-Hexane	U		0.305	1.00	1	04/26/2017 23:55	WG974106
Iodomethane	U		0.377	2.50	1	04/26/2017 23:55	WG974106
Isopropylbenzene	U		0.126	0.500	1	04/26/2017 23:55	WG974106
p-Isopropyltoluene	U		0.138	0.500	1	04/26/2017 23:55	WG974106
2-Butanone (MEK)	U		1.28	2.50	1	04/26/2017 23:55	WG974106
Methylene Chloride	U		1.07	2.50	1	04/26/2017 23:55	WG974106
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	04/26/2017 23:55	WG974106
Methyl tert-butyl ether	U		0.102	0.500	1	04/26/2017 23:55	WG974106
Naphthalene	U		0.174	0.500	1	04/26/2017 23:55	WG974106
n-Propylbenzene	U		0.162	0.500	1	04/26/2017 23:55	WG974106
Styrene	U		0.117	0.500	1	04/26/2017 23:55	WG974106
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	04/26/2017 23:55	WG974106
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	04/26/2017 23:55	WG974106

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

*Jc*  
5/19/17

MW105-042117

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 04/21/17 12:15

L904441

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	04/26/2017 23:55	WG974106
Tetrachloroethene	U		0.199	0.500	1	04/26/2017 23:55	WG974106
Toluene	0.544	J	0.412	1.00	1	04/26/2017 23:55	WG974106
1,2,3-Trichlorobenzene	U	J	0.164	0.500	1	04/26/2017 23:55	WG974106
1,2,4-Trichlorobenzene	U		0.355	0.500	1	04/26/2017 23:55	WG974106
1,1,1-Trichloroethane	U		0.0940	0.500	1	04/26/2017 23:55	WG974106
1,1,2-Trichloroethane	U		0.186	0.500	1	04/26/2017 23:55	WG974106
Trichloroethene	U		0.153	0.500	1	04/26/2017 23:55	WG974106
Trichlorofluoromethane	U		0.130	0.500	1	04/26/2017 23:55	WG974106
1,2,3-Trichloropropane	U		0.247	2.50	1	04/26/2017 23:55	WG974106
1,2,4-Trimethylbenzene	U		0.123	0.500	1	04/26/2017 23:55	WG974106
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	04/26/2017 23:55	WG974106
1,3,5-Trimethylbenzene	U		0.124	0.500	1	04/26/2017 23:55	WG974106
Vinyl acetate	U	VJ J4	0.645	2.50	1	04/26/2017 23:55	WG974106
Vinyl chloride	1.95		0.118	0.500	1	04/26/2017 23:55	WG974106
Xylenes, Total	U		0.316	1.50	1	04/26/2017 23:55	WG974106
(S) Toluene-d8	107			80.0-120		04/26/2017 23:55	WG974106
(S) Dibromofluoromethane	109			76.0-123		04/26/2017 23:55	WG974106
(S) 4-Bromofluorobenzene	95.1			80.0-120		04/26/2017 23:55	WG974106

1 Cp

2 Tc

3 Ss

4 Cn

Sr

6 Qc

7 Gl

8 Al

9 Sc

Jc  
5/9/17



## **PES Environmental, Inc.- WA**

Sample Delivery Group: L915737  
Samples Received: 06/14/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161










Entire Report Reviewed By:



Brian Ford  
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.



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<b>Tc: Table of Contents</b>	<b>2</b>	
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<b>Cn: Case Narrative</b>	<b>4</b>	
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# SAMPLE SUMMARY



## SCS-2-061217 L915737-01 GW

Collected by Shannon McKernan  
 Collected date/time 06/12/17 16:35  
 Received date/time 06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG989953	5	06/16/17 12:21	06/16/17 12:21	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/22/17 01:54	06/22/17 01:54	JHH

1  
Cp

2  
Tc

3  
Ss

## GEI-1-061317 L915737-02 GW

Collected by Shannon McKernan  
 Collected date/time 06/13/17 10:35  
 Received date/time 06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG990917	1	06/21/17 17:10	06/21/17 17:10	MCG
Wet Chemistry by Method 9056A	WG989143	1	06/14/17 21:27	06/14/17 21:27	KCF
Wet Chemistry by Method 9060A	WG989915	1	06/16/17 16:02	06/16/17 16:02	SJM
Metals (ICPMS) by Method 6020A	WG990560	1	06/19/17 19:03	06/21/17 14:07	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG989413	1	06/15/17 13:37	06/15/17 13:37	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG989637	20	06/15/17 14:51	06/15/17 14:51	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/22/17 02:17	06/22/17 02:17	JHH

4  
Cn

5  
Sr

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Qc

7  
Gl

8  
Al

9  
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.

Brian Ford  
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



## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	901		158	500	5	06/16/2017 12:21	<a href="#">WG989953</a>
(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-122		06/16/2017 12:21	<a href="#">WG989953</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	7.95	<u>J JO</u>	1.05	25.0	1	06/22/2017 01:54	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Benzene	58.9		0.0896	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
n-Butylbenzene	1.97		0.143	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
sec-Butylbenzene	1.78		0.134	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Carbon disulfide	0.147	<u>J JO</u>	0.101	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Di-isopropyl ether	1.07		0.0924	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Ethylbenzene	141		0.158	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Hexanone	U		0.757	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
n-Hexane	4.86	<u>J</u>	0.305	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Iodomethane	U		0.377	10.0	1	06/22/2017 01:54	<a href="#">WG989777</a>
Isopropylbenzene	16.3		0.126	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
p-Isopropyltoluene	0.298	<u>J</u>	0.138	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Methylene Chloride	U		1.07	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/12/17 16:35

L915737

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Naphthalene	54.3		0.174	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
n-Propylbenzene	34.2		0.162	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Styrene	U		0.117	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Toluene	4.49		0.412	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Trichloroethene	U		0.153	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2,4-Trimethylbenzene	41.7		0.123	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2,3-Trimethylbenzene	51.2		0.0739	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,3,5-Trimethylbenzene	2.83		0.124	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Vinyl acetate	U		0.645	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Vinyl chloride	U		0.118	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Xylenes, Total	70.4		0.316	1.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
(S) Toluene-d8	96.2			80.0-120		06/22/2017 01:54	<a href="#">WG989777</a>
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 01:54	<a href="#">WG989777</a>
(S) 4-Bromofluorobenzene	99.4			80.0-120		06/22/2017 01:54	<a href="#">WG989777</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	304000		2710	20000	1	06/21/2017 17:10	<a href="#">WG990917</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	14600		51.9	1000	1	06/14/2017 21:27	<a href="#">WG989143</a>
Nitrate	79.2	J	22.7	100	1	06/14/2017 21:27	<a href="#">WG989143</a>
Sulfate	25300		77.4	5000	1	06/14/2017 21:27	<a href="#">WG989143</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6730		102	1000	1	06/16/2017 16:02	<a href="#">WG989915</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	9050		15.0	100	1	06/21/2017 14:07	<a href="#">WG990560</a>
Manganese	1500		0.250	5.00	1	06/21/2017 14:07	<a href="#">WG990560</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	10600		5.74	13.6	20	06/15/2017 14:51	<a href="#">WG989637</a>
Ethane	U		0.296	1.29	1	06/15/2017 13:37	<a href="#">WG989413</a>
Ethene	U		0.422	1.27	1	06/15/2017 13:37	<a href="#">WG989413</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	JO	1.05	25.0	1	06/22/2017 02:17	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/22/2017 02:17	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/22/2017 02:17	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 02:17	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 02:17	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 02:17	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 02:17	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 02:17	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 02:17	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 02:17	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 02:17	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 02:17	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 02:17	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 02:17	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 02:17	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 02:17	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 02:17	WG989777
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/22/2017 02:17	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 02:17	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 02:17	WG989777
Ethylbenzene	0.244	U	0.158	0.500	1	06/22/2017 02:17	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 02:17	WG989777
2-Hexanone	U		0.757	5.00	1	06/22/2017 02:17	WG989777
n-Hexane	U		0.305	5.00	1	06/22/2017 02:17	WG989777
Iodomethane	U		0.377	10.0	1	06/22/2017 02:17	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 02:17	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 02:17	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 02:17	WG989777
Methylene Chloride	U		1.07	2.50	1	06/22/2017 02:17	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 02:17	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 02:17	WG989777
Naphthalene	1.02	U	0.174	2.50	1	06/22/2017 02:17	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 02:17	WG989777
Styrene	U		0.117	0.500	1	06/22/2017 02:17	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 02:17	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 02:17	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 02:17	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 02:17	WG989777
Toluene	U		0.412	0.500	1	06/22/2017 02:17	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 02:17	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 02:17	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 02:17	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 02:17	WG989777
Trichloroethene	U		0.153	0.500	1	06/22/2017 02:17	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 02:17	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 02:17	WG989777
1,2,4-Trimethylbenzene	0.200	U	0.123	0.500	1	06/22/2017 02:17	WG989777
1,2,3-Trimethylbenzene	0.200	U	0.0739	0.500	1	06/22/2017 02:17	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 02:17	WG989777
Vinyl acetate	U		0.645	5.00	1	06/22/2017 02:17	WG989777
Vinyl chloride	U		0.118	0.500	1	06/22/2017 02:17	WG989777
Xylenes, Total	U		0.316	1.50	1	06/22/2017 02:17	WG989777
(S) Toluene-d8	98.9			80.0-120		06/22/2017 02:17	WG989777
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 02:17	WG989777
(S) 4-Bromofluorobenzene	97.6			80.0-120		06/22/2017 02:17	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3227879-1 06/21/17 14:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

<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

L915760-01 Original Sample (OS) • Duplicate (DUP)

(OS) L915760-01 06/21/17 14:42 • (DUP) R3227879-2 06/21/17 14:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	97600	99000	1	1.00		20

L915760-04 Original Sample (OS) • Duplicate (DUP)

(OS) L915760-04 06/21/17 17:43 • (DUP) R3227879-7 06/21/17 17:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	307000	308000	1	0.000		20

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

(LCS) R3227879-3 06/21/17 15:35 • (LCSD) R3227879-6 06/21/17 17:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	107000	109000	107	109	85.0-115			1.00	20



Method Blank (MB)

(MB) R3225798-1 06/14/17 15:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	137	↓	51.9	1000
Nitrate	U		22.7	100
Sulfate	87.1	↓	77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L914573-03 Original Sample (OS) • Duplicate (DUP)

(OS) L914573-03 06/14/17 17:22 • (DUP) R3225798-4 06/14/17 17:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	842	766	5	9		15
Sulfate	142000	140000	5	1		15

L915760-01 Original Sample (OS) • Duplicate (DUP)

(OS) L915760-01 06/14/17 21:56 • (DUP) R3225798-6 06/14/17 22:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	10900	10700	1	2		15
Nitrate	439	444	1	1		15
Sulfate	5350	5320	1	1		15

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

(LCS) R3225798-2 06/14/17 16:10 • (LCSD) R3225798-3 06/14/17 16:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39200	39400	98	98	80-120			0	15
Nitrate	8000	8060	8080	101	101	80-120			0	15
Sulfate	40000	39600	39700	99	99	80-120			0	15

L915713-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L915713-01 06/14/17 18:49 • (MS) R3225798-5 06/14/17 19:03

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Nitrate	5000	ND	4660	92	1	80-120	
Sulfate	50000	9190	59400	100	1	80-120	



L915760-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L915760-03 06/14/17 22:39 • (MS) R3225798-7 06/14/17 22:54 • (MSD) R3225798-8 06/14/17 23:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	1960	52500	52700	101	102	1	80-120			1	15
Nitrate	5000	551	5670	5550	102	100	1	80-120			2	15
Sulfate	50000	1580	52100	52100	101	101	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) R3226627-1 06/16/17 12:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

<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

L915586-04 Original Sample (OS) • Duplicate (DUP)

(OS) L915586-04 06/16/17 14:46 • (DUP) R3226627-3 06/16/17 15:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1420	1490	1	5		20

L916081-03 Original Sample (OS) • Duplicate (DUP)

(OS) L916081-03 06/16/17 21:50 • (DUP) R3226627-7 06/16/17 22:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1020	992	1	3	J	20

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

(LCS) R3226627-2 06/16/17 14:12 • (LCSD) R3226627-4 06/16/17 16:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71200	71600	95	96	85-115			1	20

L915799-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L915799-01 06/16/17 17:27 • (MS) R3226627-5 06/16/17 17:45 • (MSD) R3226627-6 06/16/17 18:02

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	6600	50500	49600	88	86	1	80-120			2	20



Method Blank (MB)

(MB) R3227505-1 06/21/17 13:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Iron	U		15.0	100
Manganese	0.371	J	0.250	5.00

1 Cp

2 Tc

3 Ss

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

(LCS) R3227505-2 06/21/17 13:39 • (LCSD) R3227505-3 06/21/17 13:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Iron	5000	4780	4760	96	95	80-120			0	20
Manganese	50.0	45.8	45.4	92	91	80-120			1	20

4 Cn

5 Sr

6 Qc

L916657-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916657-02 06/21/17 13:46 • (MS) R3227505-5 06/21/17 13:53 • (MSD) R3227505-6 06/21/17 13:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Iron	5000	17.9	4710	4650	94	93	1	75-125			1	20
Manganese	50.0	144	190	189	92	89	1	75-125			1	20

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3226859-3 06/16/17 11:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	99.6			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) R3226859-1 06/16/17 10:16 • (LCSD) R3226859-2 06/16/17 10:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	5730	5810	104	106	72.0-134			1.42	20
(S) a,a,a-Trifluorotoluene(FID)				105	105	77.0-122				

L915737-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L915737-01 06/16/17 12:21 • (MS) R3226859-4 06/16/17 12:42 • (MSD) R3226859-5 06/16/17 13:03

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	901	31400	31500	111	111	5	23.0-159			0.550	20
(S) a,a,a-Trifluorotoluene(FID)					103	102		77.0-122				



Method Blank (MB)

(MB) R3225974-1 06/15/17 12:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L915690-03 Original Sample (OS) • Duplicate (DUP)

(OS) L915690-03 06/15/17 13:22 • (DUP) R3225974-2 06/15/17 13:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L915951-01 Original Sample (OS) • Duplicate (DUP)

(OS) L915951-01 06/15/17 13:41 • (DUP) R3225974-3 06/15/17 14:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

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

(LCS) R3225974-4 06/15/17 14:12 • (LCSD) R3225974-5 06/15/17 14:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethane	129	138	130	107	101	70.0-130			5.62	20
Ethene	127	132	124	104	98.0	70.0-130			6.02	20



Method Blank (MB)

(MB) R3226033-1 06/15/17 14:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

<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

L915669-03 Original Sample (OS) • Duplicate (DUP)

(OS) L915669-03 06/15/17 15:05 • (DUP) R3226033-2 06/15/17 15:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	10500	8910	10	16.5		20

L915951-07 Original Sample (OS) • Duplicate (DUP)

(OS) L915951-07 06/15/17 15:20 • (DUP) R3226033-3 06/15/17 15:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	10500	8940	20	16.4		20

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

(LCS) R3226033-4 06/15/17 15:30 • (LCSD) R3226033-5 06/15/17 15:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	69.5	71.2	103	105	70.0-130			2.47	20



Method Blank (MB)

(MB) R3227153-3 06/17/17 11:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500
2-Hexanone	U		0.757	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



Method Blank (MB)

(MB) R3227153-3 06/17/17 11:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
n-Hexane	U		0.305	5.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
Methyl tert-butyl ether	U		0.102	0.500
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Naphthalene	U		0.174	2.50
1,1,2,2-Tetrachloroethane	U		0.130	0.500
n-Propylbenzene	U		0.162	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
Toluene	U		0.412	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
Trichloroethene	U		0.153	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,2,4-Trimethylbenzene	U		0.123	0.500
Vinyl chloride	U		0.118	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	99.8			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) R3227153-1 06/17/17 08:45 • (LCSD) R3227153-2 06/17/17 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	25.0	25.8	25.9	103	104	76.0-122			0.370	20
Acetone	125	142	140	113	112	10.0-160			0.890	23
Acrylonitrile	125	121	129	97.1	103	60.0-142			5.78	20
Benzene	25.0	25.0	25.1	99.9	101	69.0-123			0.620	20
trans-1,4-Dichloro-2-butene	25.0	19.0	19.9	75.8	79.5	55.0-134			4.72	20
Bromobenzene	25.0	24.0	24.5	96.0	98.1	79.0-120			2.17	20
Bromodichloromethane	25.0	25.5	25.0	102	99.9	76.0-120			2.25	20
Bromoform	25.0	26.3	26.8	105	107	67.0-132			1.99	20
2-Hexanone	125	144	144	115	115	58.0-147			0.210	20
Bromomethane	25.0	19.2	18.0	76.8	72.0	18.0-160			6.48	20
Iodomethane	125	103	117	82.1	93.4	57.0-140			12.8	20
n-Butylbenzene	25.0	23.6	24.5	94.3	97.9	72.0-126			3.74	20
sec-Butylbenzene	25.0	23.3	24.5	93.3	98.0	74.0-121			4.92	20
tert-Butylbenzene	25.0	23.3	24.5	93.4	98.2	75.0-122			5.02	20
Carbon disulfide	25.0	29.7	30.3	119	121	55.0-127			1.94	20
Carbon tetrachloride	25.0	26.4	26.9	105	108	63.0-122			2.00	20
Chlorobenzene	25.0	25.4	26.2	102	105	79.0-121			2.85	20
Chlorodibromomethane	25.0	27.2	27.2	109	109	75.0-125			0.0900	20
Chloroethane	25.0	22.2	22.2	88.9	88.7	47.0-152			0.230	20
Chloroform	25.0	24.1	24.0	96.4	96.1	72.0-121			0.370	20
Chloromethane	25.0	21.5	22.2	85.9	88.8	48.0-139			3.41	20
2-Chlorotoluene	25.0	24.2	24.8	96.9	99.3	74.0-122			2.46	20
4-Chlorotoluene	25.0	24.6	25.5	98.6	102	79.0-120			3.57	20
1,2-Dibromo-3-Chloropropane	25.0	22.4	23.6	89.6	94.5	64.0-127			5.33	20
1,2-Dibromoethane	25.0	25.7	26.7	103	107	77.0-123			3.65	20
1,2-Dichlorobenzene	25.0	25.6	26.0	102	104	80.0-120			1.68	20
Dibromomethane	25.0	25.5	25.8	102	103	78.0-120			1.10	20
1,3-Dichlorobenzene	25.0	24.8	25.3	99.3	101	72.0-123			1.98	20
1,4-Dichlorobenzene	25.0	24.9	24.9	99.4	99.4	77.0-120			0.0300	20
Dichlorodifluoromethane	25.0	25.7	25.3	103	101	49.0-155			1.31	20
1,1-Dichloroethane	25.0	24.9	25.0	99.6	100	70.0-126			0.570	20
1,2-Dichloroethane	25.0	25.6	25.6	102	103	67.0-126			0.270	20
1,1-Dichloroethene	25.0	29.1	29.2	116	117	64.0-129			0.400	20
Vinyl acetate	125	80.5	88.2	64.4	70.6	46.0-160			9.15	20
cis-1,2-Dichloroethene	25.0	24.6	25.5	98.6	102	73.0-120			3.44	20
trans-1,2-Dichloroethene	25.0	25.1	25.6	100	103	71.0-121			2.25	20
1,2-Dichloropropane	25.0	25.0	25.3	100	101	75.0-125			1.08	20
1,1-Dichloropropene	25.0	25.7	26.1	103	104	71.0-129			1.41	20
1,3-Dichloropropane	25.0	25.6	25.9	103	103	80.0-121			0.810	20
cis-1,3-Dichloropropene	25.0	24.7	24.9	98.9	99.4	79.0-123			0.570	20

1 Cp

2 Tc

3 Ss

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5 Sr

6 Qc

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9 Sc



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

(LCS) R3227153-1 06/17/17 08:45 • (LCSD) R3227153-2 06/17/17 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	25.0	24.7	24.9	98.9	99.8	74.0-127			0.880	20
2,2-Dichloropropane	25.0	22.3	22.6	89.0	90.2	60.0-125			1.36	20
Di-isopropyl ether	25.0	25.2	25.2	101	101	59.0-133			0.0700	20
Ethylbenzene	25.0	25.7	26.4	103	105	77.0-120			2.59	20
Hexachloro-1,3-butadiene	25.0	23.5	24.0	94.0	95.8	64.0-131			1.93	20
n-Hexane	25.0	23.5	23.4	94.1	93.7	56.0-124			0.390	20
Isopropylbenzene	25.0	24.4	25.2	97.4	101	75.0-120			3.27	20
p-Isopropyltoluene	25.0	23.6	24.6	94.6	98.4	74.0-126			3.95	20
2-Butanone (MEK)	125	122	122	97.9	97.4	37.0-158			0.480	20
Methylene Chloride	25.0	24.7	24.7	98.8	98.8	66.0-121			0.0300	20
4-Methyl-2-pentanone (MIBK)	125	127	129	102	103	59.0-143			1.85	20
Methyl tert-butyl ether	25.0	25.3	25.0	101	99.9	64.0-123			1.17	20
Naphthalene	25.0	22.4	23.5	89.6	94.0	62.0-128			4.87	20
n-Propylbenzene	25.0	24.1	24.6	96.5	98.4	79.0-120			1.93	20
Styrene	25.0	25.4	25.7	101	103	78.0-124			1.15	20
1,1,1,2-Tetrachloroethane	25.0	25.9	25.8	104	103	75.0-122			0.650	20
1,1,2,2-Tetrachloroethane	25.0	22.1	22.9	88.4	91.6	71.0-122			3.56	20
Tetrachloroethene	25.0	26.2	26.6	105	106	70.0-127			1.53	20
Toluene	25.0	25.8	25.8	103	103	77.0-120			0.0800	20
1,1,2-Trichlorotrifluoroethane	25.0	28.8	29.2	115	117	61.0-136			1.54	20
1,2,3-Trichlorobenzene	25.0	22.5	22.6	90.2	90.5	61.0-133			0.370	20
1,1,1-Trichloroethane	25.0	26.8	27.0	107	108	68.0-122			0.740	20
1,2,4-Trichlorobenzene	25.0	25.1	26.4	100	106	69.0-129			5.32	20
1,1,2-Trichloroethane	25.0	25.7	26.1	103	104	78.0-120			1.56	20
Trichloroethene	25.0	26.5	27.4	106	110	78.0-120			3.37	20
Trichlorofluoromethane	25.0	26.3	26.2	105	105	56.0-137			0.420	20
1,2,3-Trichloropropane	25.0	22.8	24.5	91.2	97.9	72.0-124			7.10	20
1,2,3-Trimethylbenzene	25.0	25.2	25.8	101	103	75.0-120			2.40	20
1,2,4-Trimethylbenzene	25.0	24.6	24.9	98.5	99.6	75.0-120			1.20	20
1,3,5-Trimethylbenzene	25.0	24.1	24.4	96.6	97.5	75.0-120			0.900	20
Vinyl chloride	25.0	24.6	25.2	98.5	101	64.0-133			2.48	20
Xylenes, Total	75.0	75.8	75.8	101	101	77.0-120			0.000	20
(S) Toluene-d8				106	106	80.0-120				
(S) Dibromofluoromethane				98.8	99.2	76.0-123				
(S) 4-Bromofluorobenzene				101	103	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



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: Calibration verification outside of acceptance limits. Result is estimated.

<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		

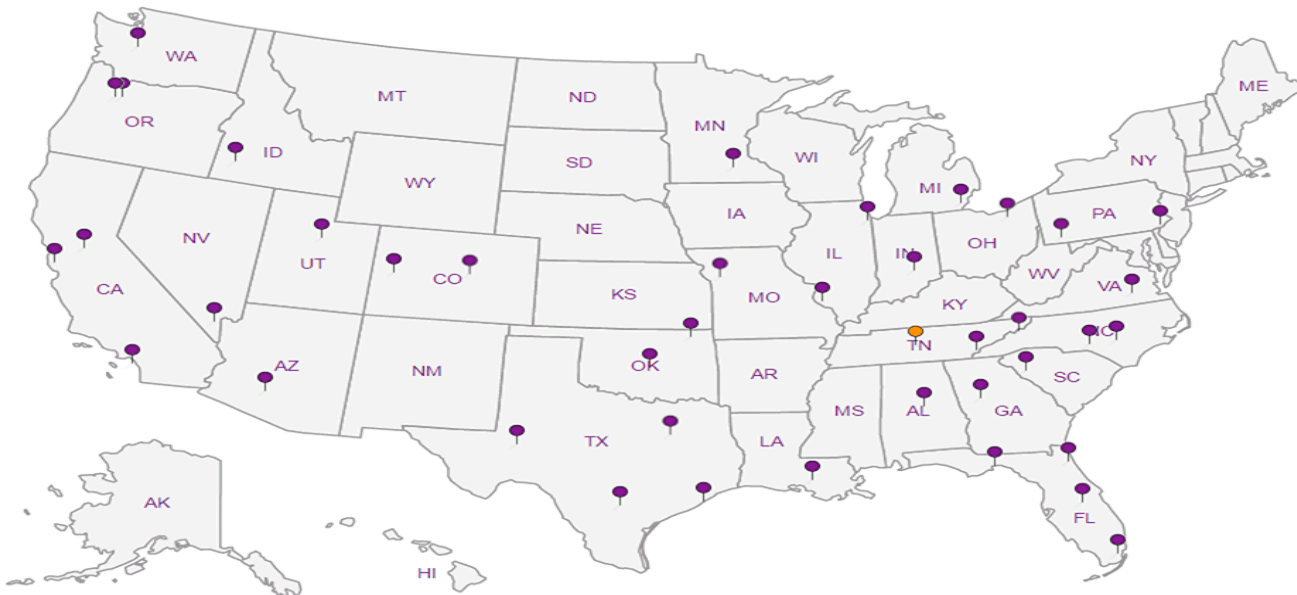
## Third Party & Federal Accreditations

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.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:  
Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: [bhaldeman@pesenv.com](mailto:bhaldeman@pesenv.com)

Project  
Description: **American Linen Supply**

City/State: **SEATTLE, WA**  
Collected:

Phone: **206-529-3980**  
Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
**SHANNON MCKERNAN**

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N  Y

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page      of     



YOUR LAB OF CHOICE

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



L# **L915737**  
**H114**

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **S-31-176**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk, Cl, NO3, SO4 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
SOS-2-061217	GRAB	GW	20.8	6/12/17	1635	6	X	X	X	X	X	X		-2
GFI-1-061317	GRAB	GW	32	6/13/17	1035	89	X	X	X	X	X	X		2
F-MW-131-061317	GRAB	GW	68	6/13/17		89	X	X	X	X	X	X		3
		GW												
		GW												
		GW												
		GW												
		GW												
		GW												

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

Remarks: \*NO3 nitrate has a 48 hour holding time

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **7372 1955 0605**

Relinquished by: (Signature) <i>[Signature]</i>	Date: <b>6/13/17</b>	Time: <b>1545</b>	Received by: (Signature)	Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>2.1m</b> °C Bottles Received: <b>15</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <b>06-14-2017</b> Time: <b>0845</b> Hold: Condition: <b>NCF 10K</b>



## MEMORANDUM

**TO:** Project File **DATE:** July 24, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** June 12 and 13, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L915737

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Two (2) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 12 and 13, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L915737. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L915737 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *NWTPH-Gx Method:*

The sample was analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

## **Initial and Continuing Calibration**

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acetone, bromomethane, carbon disulfide, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene were identified by the laboratory for sample SCS-2-061217 associated with analytical batch WG989777 (analyzed on June 22, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample SCS-2-061217 results for acetone, bromomethane, carbon disulfide, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene are estimated and qualified (UJ or J). Sample GEI-1-061317 results for acetone, bromomethane, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene are estimated and qualified (UJ).**

## **Method Blank Results**

### *USEPA Method 8260C:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

### *NWTPH-Gx Method:*

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

### *Method RSK-175:*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

### *USEPA Method 6020:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL with the following discussion:

- Low level manganese was detected in the method blank (WG990560) less than the RDL but greater than the method detection limit (MDL). No action was necessary as associated manganese results are significantly greater than low level manganese detection in the blank.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- Low levels of chloride and sulfate were detected in the method blank between the RDL and MDL. No action was necessary as associated chloride and sulfate sample results are significantly greater than the detections in the blank.

### **Trip Blank Results**

*USEPA Method 8260C and NWTPH-Gx:*

A trip blank was not collected.

### **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

### **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

### **Laboratory Duplicate Analyses**

*USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*NWTPH-Gx Method:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

*Method RSK-175:*

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* A laboratory duplicate sample was performed on a non-client sample within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analyses are within the laboratory control limit of 20%.

### **Surrogate Recoveries**

#### *USEPA Method 8260C:*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

#### *NWTPH-Gx Method:*

The surrogate recovery results for the sample, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

### **Laboratory Control Samples**

#### *USEPA Method 8260C:*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

#### *NWTPH-Gx Method:*

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

#### *Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

#### *USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

#### *General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.



## **Matrix Spike/Matrix Spike Duplicates**

### *USEPA Method 8260C:*

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

### *NWTPH-Gx Method:*

MS/MSD analysis was performed on sample SCS-2-061217. MS/MSD % Rs and RPD for gasoline were within the laboratory control criteria for water.

### *Method RSK-175:*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

### *USEPA Method 6020:*

MS/MSD analysis was performed on non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

### *General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS and MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

## **Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

## **Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

**Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.**

## **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/12/17 16:35

L915737

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	901		158	500	5	06/16/2017 12:21	<a href="#">WG989953</a>
(S) o,a,a-Trifluorotoluene(FID)	98.6			77.0-122		06/16/2017 12:21	<a href="#">WG989953</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	7.95	J JO	1.05	25.0	1	06/22/2017 01:54	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Benzene	58.9		0.0896	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Bromomethane	U	VJ JO	0.157	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
n-Butylbenzene	1.97		0.143	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
sec-Butylbenzene	1.78		0.134	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Carbon disulfide	0.147	J JO	0.101	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Di-isopropyl ether	1.07		0.0924	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Ethylbenzene	141		0.158	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Hexanone	U		0.757	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
n-Hexane	4.86	J J	0.305	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Iodomethane	U		0.377	10.0	1	06/22/2017 01:54	<a href="#">WG989777</a>
Isopropylbenzene	16.3		0.126	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
p-Isopropyltoluene	0.298	J J	0.138	0.500	1	06/22/2017 01:54	<a href="#">WG989777</a>
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 01:54	<a href="#">WG989777</a>
Methylene Chloride	U		1.07	2.50	1	06/22/2017 01:54	<a href="#">WG989777</a>

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

*Jc 7/24/17*

SCS-2-061217

## SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/12/17 16:35

L915737

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 01:54	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 01:54	WG989777
Naphthalene	54.3		0.174	2.50	1	06/22/2017 01:54	WG989777
n-Propylbenzene	34.2		0.162	0.500	1	06/22/2017 01:54	WG989777
Styrene	U		0.117	0.500	1	06/22/2017 01:54	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 01:54	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 01:54	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 01:54	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 01:54	WG989777
Toluene	4.49		0.412	0.500	1	06/22/2017 01:54	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 01:54	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 01:54	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 01:54	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 01:54	WG989777
Trichloroethene	U		0.153	0.500	1	06/22/2017 01:54	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 01:54	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 01:54	WG989777
1,2,4-Trimethylbenzene	41.7		0.123	0.500	1	06/22/2017 01:54	WG989777
1,2,3-Trimethylbenzene	51.2		0.0739	0.500	1	06/22/2017 01:54	WG989777
1,3,5-Trimethylbenzene	2.83		0.124	0.500	1	06/22/2017 01:54	WG989777
Vinyl acetate	U		0.645	5.00	1	06/22/2017 01:54	WG989777
Vinyl chloride	U		0.118	0.500	1	06/22/2017 01:54	WG989777
Xylenes, Total	70.4		0.316	1.50	1	06/22/2017 01:54	WG989777
(S) Toluene-d8	96.2			80.0-120		06/22/2017 01:54	WG989777
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 01:54	WG989777
(S) 4-Bromofluorobenzene	99.4			80.0-120		06/22/2017 01:54	WG989777

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC 7/24/17





Collected date/time: 06/13/17 10:35

L915737

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	304000		2710	20000	1	06/21/2017 17:10	<a href="#">WG990917</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	14600		51.9	1000	1	06/14/2017 21:27	<a href="#">WG989143</a>
Nitrate	79.2	J J	22.7	100	1	06/14/2017 21:27	<a href="#">WG989143</a>
Sulfate	25300		77.4	5000	1	06/14/2017 21:27	<a href="#">WG989143</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6730		102	1000	1	06/16/2017 16:02	<a href="#">WG989915</a>

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	9050		15.0	100	1	06/21/2017 14:07	<a href="#">WG990560</a>
Manganese	1500		0.250	5.00	1	06/21/2017 14:07	<a href="#">WG990560</a>

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	10600		5.74	13.6	20	06/15/2017 14:51	<a href="#">WG989637</a>
Ethane	U		0.296	1.29	1	06/15/2017 13:37	<a href="#">WG989413</a>
Ethene	U		0.422	1.27	1	06/15/2017 13:37	<a href="#">WG989413</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U	UJ JO	1.05	25.0	1	06/22/2017 02:17	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/22/2017 02:17	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Bromomethane	U	UJ JO	0.157	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/22/2017 02:17	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U	UJ JO	0.325	2.50	1	06/22/2017 02:17	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/22/2017 02:17	<a href="#">WG989777</a>





Collected date/time: 06/13/17 10:35

L915737

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 02:17	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 02:17	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 02:17	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 02:17	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 02:17	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 02:17	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 02:17	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 02:17	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 02:17	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 02:17	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 02:17	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 02:17	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 02:17	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 02:17	WG989777
trans-1,4-Dichloro-2-butene	U	WJ JO	0.257	5.00	1	06/22/2017 02:17	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 02:17	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 02:17	WG989777
Ethylbenzene	0.244	J J	0.158	0.500	1	06/22/2017 02:17	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 02:17	WG989777
2-Hexanone	U		0.757	5.00	1	06/22/2017 02:17	WG989777
n-Hexane	U		0.305	5.00	1	06/22/2017 02:17	WG989777
Iodomethane	U		0.377	10.0	1	06/22/2017 02:17	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 02:17	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 02:17	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 02:17	WG989777
Methylene Chloride	U		1.07	2.50	1	06/22/2017 02:17	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 02:17	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 02:17	WG989777
Naphthalene	1.02	J J	0.174	2.50	1	06/22/2017 02:17	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 02:17	WG989777
Styrene	U		0.117	0.500	1	06/22/2017 02:17	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 02:17	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 02:17	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 02:17	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 02:17	WG989777
Toluene	U		0.412	0.500	1	06/22/2017 02:17	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 02:17	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 02:17	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 02:17	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 02:17	WG989777
Trichloroethene	U		0.153	0.500	1	06/22/2017 02:17	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 02:17	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 02:17	WG989777
1,2,4-Trimethylbenzene	0.200	J J	0.123	0.500	1	06/22/2017 02:17	WG989777
1,2,3-Trimethylbenzene	0.200	J J	0.0739	0.500	1	06/22/2017 02:17	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 02:17	WG989777
Vinyl acetate	U		0.645	5.00	1	06/22/2017 02:17	WG989777
Vinyl chloride	U		0.118	0.500	1	06/22/2017 02:17	WG989777
Xylenes, Total	U		0.316	1.50	1	06/22/2017 02:17	WG989777
(S) Toluene-d8	98.9			80.0-120		06/22/2017 02:17	WG989777
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 02:17	WG989777
(S) 4-Bromofluorobenzene	97.6			80.0-120		06/22/2017 02:17	WG989777

Cp  
Tc  
Ss  
Cn  
Si  
Qc  
Gl  
Al  
Sc

## **PES Environmental, Inc.- WA**

Sample Delivery Group: L916025  
Samples Received: 06/15/2017  
Project Number: 1413.001.02.002  
Description: American Linen Supply  
Site: 700 DEXTER AVE N SEATTLE WA  
Report To: Bill Haldeman  
1215 Fourth Ave., Suite 1350  
Seattle, WA 98161










Entire Report Reviewed By:

*Brian Ford*

Brian Ford  
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.



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# SAMPLE SUMMARY



## MW105-061417 L916025-01 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 10:30  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 18:44	06/19/17 18:44	JAH

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## BB-8-061417 L916025-02 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 10:50  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG990920	1	06/22/17 01:33	06/22/17 01:33	MCG
Wet Chemistry by Method 9056A	WG989400	1	06/15/17 13:52	06/15/17 13:52	DR
Wet Chemistry by Method 9060A	WG989915	1	06/16/17 19:17	06/16/17 19:17	SJM
Metals (ICPMS) by Method 6020A	WG990560	1	06/19/17 19:03	06/21/17 14:19	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG989710	1	06/16/17 10:40	06/16/17 10:40	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 19:06	06/19/17 19:06	JAH

## SCL-MW101-061417 L916025-03 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 13:00  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 19:29	06/19/17 19:29	JAH

## MW122-061417 L916025-04 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 13:00  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 19:52	06/19/17 19:52	JAH

## MW111-061417 L916025-05 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 15:00  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG990920	1	06/22/17 01:40	06/22/17 01:40	MCG
Wet Chemistry by Method 9056A	WG989400	1	06/15/17 14:22	06/15/17 14:22	DR
Wet Chemistry by Method 9060A	WG990593	1	06/19/17 11:47	06/19/17 11:47	SJM
Metals (ICPMS) by Method 6020A	WG990560	1	06/19/17 19:03	06/21/17 14:22	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG989710	1	06/16/17 10:43	06/16/17 10:43	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 20:15	06/19/17 20:15	JAH

## MW103-061417 L916025-06 GW

Collected by Shannon McKernan  
Collected date/time 06/14/17 15:00  
Received date/time 06/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG990920	1	06/22/17 01:47	06/22/17 01:47	MCG
Wet Chemistry by Method 9056A	WG989400	1	06/15/17 14:37	06/15/17 14:37	DR
Wet Chemistry by Method 9060A	WG990593	1	06/19/17 12:00	06/19/17 12:00	SJM
Metals (ICPMS) by Method 6020A	WG990560	1	06/19/17 19:03	06/21/17 14:26	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG989710	1	06/16/17 10:45	06/16/17 10:45	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG989777	1	06/19/17 20:37	06/19/17 20:37	JAH



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.

Brian Ford  
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





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.18	J	1.05	25.0	1	06/19/2017 18:44	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 18:44	WG989777
Benzene	U		0.0896	0.500	1	06/19/2017 18:44	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 18:44	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 18:44	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 18:44	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 18:44	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 18:44	WG989777
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 18:44	WG989777
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 18:44	WG989777
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 18:44	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 18:44	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 18:44	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 18:44	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 18:44	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 18:44	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 18:44	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 18:44	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 18:44	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 18:44	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 18:44	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 18:44	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 18:44	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 18:44	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 18:44	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 18:44	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 18:44	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 18:44	WG989777
cis-1,2-Dichloroethene	0.180	J	0.0933	0.500	1	06/19/2017 18:44	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 18:44	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 18:44	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 18:44	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 18:44	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 18:44	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 18:44	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 18:44	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 18:44	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 18:44	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 18:44	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 18:44	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 18:44	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 18:44	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 18:44	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 18:44	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 18:44	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 18:44	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 18:44	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 18:44	WG989777
Naphthalene	1.41	J	0.174	2.50	1	06/19/2017 18:44	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 18:44	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 18:44	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 18:44	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 18:44	WG989777

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



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Toluene	U		0.412	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Trichloroethene	0.356	J	0.153	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,2,4-Trimethylbenzene	0.216	J	0.123	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Vinyl acetate	U		0.645	5.00	1	06/19/2017 18:44	<a href="#">WG989777</a>
Vinyl chloride	0.514		0.118	0.500	1	06/19/2017 18:44	<a href="#">WG989777</a>
Xylenes, Total	U		0.316	1.50	1	06/19/2017 18:44	<a href="#">WG989777</a>
(S) Toluene-d8	100			80.0-120		06/19/2017 18:44	<a href="#">WG989777</a>
(S) Dibromofluoromethane	108			76.0-123		06/19/2017 18:44	<a href="#">WG989777</a>
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 18:44	<a href="#">WG989777</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	290000		2710	20000	1	06/22/2017 01:33	<a href="#">WG990920</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10200		51.9	1000	1	06/15/2017 13:52	<a href="#">WG989400</a>
Nitrate	2740		22.7	100	1	06/15/2017 13:52	<a href="#">WG989400</a>
Sulfate	56900		77.4	5000	1	06/15/2017 13:52	<a href="#">WG989400</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3340		102	1000	1	06/16/2017 19:17	<a href="#">WG989915</a>

## Metals (ICPMS) by Method 6020A

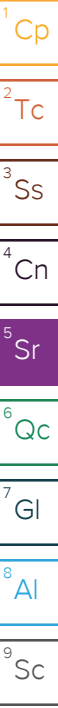
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	34.8	J	15.0	100	1	06/21/2017 14:19	<a href="#">WG990560</a>
Manganese	47.5		0.250	5.00	1	06/21/2017 14:19	<a href="#">WG990560</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		0.287	0.678	1	06/16/2017 10:40	<a href="#">WG989710</a>
Ethane	U		0.296	1.29	1	06/16/2017 10:40	<a href="#">WG989710</a>
Ethene	U		0.422	1.27	1	06/16/2017 10:40	<a href="#">WG989710</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.50	J	1.05	25.0	1	06/19/2017 19:06	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:06	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromomethane	U		0.157	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/19/2017 19:06	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>





Collected date/time: 06/14/17 10:50

L916025

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:06	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:06	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:06	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:06	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:06	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:06	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:06	WG989777
cis-1,2-Dichloroethene	12.6		0.0933	0.500	1	06/19/2017 19:06	WG989777
trans-1,2-Dichloroethene	0.155	J	0.152	0.500	1	06/19/2017 19:06	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:06	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:06	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:06	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:06	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:06	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:06	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:06	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:06	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 19:06	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:06	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:06	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 19:06	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:06	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 19:06	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:06	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:06	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:06	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:06	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:06	WG989777
Naphthalene	0.184	J	0.174	2.50	1	06/19/2017 19:06	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 19:06	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:06	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:06	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:06	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:06	WG989777
Tetrachloroethene	26.0		0.199	0.500	1	06/19/2017 19:06	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 19:06	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:06	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:06	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:06	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:06	WG989777
Trichloroethene	8.57		0.153	0.500	1	06/19/2017 19:06	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:06	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:06	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 19:06	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 19:06	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 19:06	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:06	WG989777
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:06	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 19:06	WG989777
(S) Toluene-d8	103			80.0-120		06/19/2017 19:06	WG989777
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 19:06	WG989777
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 19:06	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/19/2017 19:29	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:29	WG989777
Benzene	18.6		0.0896	0.500	1	06/19/2017 19:29	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:29	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:29	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:29	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 19:29	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 19:29	WG989777
n-Butylbenzene	6.97		0.143	0.500	1	06/19/2017 19:29	WG989777
sec-Butylbenzene	8.01		0.134	0.500	1	06/19/2017 19:29	WG989777
tert-Butylbenzene	0.219	J	0.183	0.500	1	06/19/2017 19:29	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:29	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:29	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:29	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:29	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 19:29	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 19:29	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 19:29	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:29	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:29	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:29	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:29	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:29	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:29	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:29	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:29	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:29	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:29	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/19/2017 19:29	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:29	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:29	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:29	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:29	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:29	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:29	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:29	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:29	WG989777
Ethylbenzene	17.1		0.158	0.500	1	06/19/2017 19:29	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:29	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:29	WG989777
n-Hexane	3.39	J	0.305	5.00	1	06/19/2017 19:29	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:29	WG989777
Isopropylbenzene	29.9		0.126	0.500	1	06/19/2017 19:29	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:29	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:29	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:29	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:29	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:29	WG989777
Naphthalene	4.76		0.174	2.50	1	06/19/2017 19:29	WG989777
n-Propylbenzene	75.3		0.162	0.500	1	06/19/2017 19:29	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:29	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:29	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:29	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Toluene	1.68		0.412	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Trichloroethene	U		0.153	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,4-Trimethylbenzene	1.12		0.123	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trimethylbenzene	2.03		0.0739	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,3,5-Trimethylbenzene	0.185	J	0.124	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:29	<a href="#">WG989777</a>
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Xylenes, Total	3.50		0.316	1.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
(S) Toluene-d8	102			80.0-120		06/19/2017 19:29	<a href="#">WG989777</a>
(S) Dibromofluoromethane	105			76.0-123		06/19/2017 19:29	<a href="#">WG989777</a>
(S) 4-Bromofluorobenzene	98.1			80.0-120		06/19/2017 19:29	<a href="#">WG989777</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/19/2017 19:52	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:52	WG989777
Benzene	U		0.0896	0.500	1	06/19/2017 19:52	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:52	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:52	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:52	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 19:52	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 19:52	WG989777
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 19:52	WG989777
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 19:52	WG989777
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 19:52	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:52	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:52	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:52	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:52	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 19:52	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 19:52	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 19:52	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:52	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:52	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:52	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:52	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:52	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:52	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:52	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:52	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:52	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:52	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/19/2017 19:52	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:52	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:52	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:52	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:52	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:52	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:52	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:52	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:52	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 19:52	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:52	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:52	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 19:52	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:52	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 19:52	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:52	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:52	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:52	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:52	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:52	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 19:52	WG989777
n-Propylbenzene	0.382	J	0.162	0.500	1	06/19/2017 19:52	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:52	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:52	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:52	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Toluene	U		0.412	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Trichloroethene	0.162	J	0.153	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:52	<a href="#">WG989777</a>
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:52	<a href="#">WG989777</a>
Xylenes, Total	U		0.316	1.50	1	06/19/2017 19:52	<a href="#">WG989777</a>
(S) Toluene-d8	99.9			80.0-120		06/19/2017 19:52	<a href="#">WG989777</a>
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 19:52	<a href="#">WG989777</a>
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 19:52	<a href="#">WG989777</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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	202000		2710	20000	1	06/22/2017 01:40	<a href="#">WG990920</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	23200		51.9	1000	1	06/15/2017 14:22	<a href="#">WG989400</a>
Nitrate	U		22.7	100	1	06/15/2017 14:22	<a href="#">WG989400</a>
Sulfate	8970		77.4	5000	1	06/15/2017 14:22	<a href="#">WG989400</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1200		102	1000	1	06/19/2017 11:47	<a href="#">WG990593</a>

## Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	298		15.0	100	1	06/21/2017 14:22	<a href="#">WG990560</a>
Manganese	142		0.250	5.00	1	06/21/2017 14:22	<a href="#">WG990560</a>

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	231		0.287	0.678	1	06/16/2017 10:43	<a href="#">WG989710</a>
Ethane	7.73		0.296	1.29	1	06/16/2017 10:43	<a href="#">WG989710</a>
Ethene	6.71		0.422	1.27	1	06/16/2017 10:43	<a href="#">WG989710</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/19/2017 20:15	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/19/2017 20:15	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Bromomethane	U		0.157	2.50	1	06/19/2017 20:15	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/19/2017 20:15	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/19/2017 20:15	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 20:15	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/19/2017 20:15	<a href="#">WG989777</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 20:15	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 20:15	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 20:15	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 20:15	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 20:15	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 20:15	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 20:15	WG989777
cis-1,2-Dichloroethene	1.24		0.0933	0.500	1	06/19/2017 20:15	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 20:15	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 20:15	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 20:15	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 20:15	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 20:15	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 20:15	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 20:15	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 20:15	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 20:15	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 20:15	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 20:15	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 20:15	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 20:15	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 20:15	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 20:15	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 20:15	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 20:15	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 20:15	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 20:15	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 20:15	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 20:15	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 20:15	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 20:15	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 20:15	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 20:15	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 20:15	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 20:15	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 20:15	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 20:15	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 20:15	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 20:15	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 20:15	WG989777
Trichloroethene	0.408	J	0.153	0.500	1	06/19/2017 20:15	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 20:15	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 20:15	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 20:15	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 20:15	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 20:15	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 20:15	WG989777
Vinyl chloride	3.22		0.118	0.500	1	06/19/2017 20:15	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 20:15	WG989777
(S) Toluene-d8	101			80.0-120		06/19/2017 20:15	WG989777
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 20:15	WG989777
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 20:15	WG989777

- 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	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	339000		2710	20000	1	06/22/2017 01:47	<a href="#">WG990920</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	34700		51.9	1000	1	06/15/2017 14:37	<a href="#">WG989400</a>
Nitrate	U		22.7	100	1	06/15/2017 14:37	<a href="#">WG989400</a>
Sulfate	28100		77.4	5000	1	06/15/2017 14:37	<a href="#">WG989400</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2580		102	1000	1	06/19/2017 12:00	<a href="#">WG990593</a>

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	4560		15.0	100	1	06/21/2017 14:26	<a href="#">WG990560</a>
Manganese	936		0.250	5.00	1	06/21/2017 14:26	<a href="#">WG990560</a>

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	863		0.287	0.678	1	06/16/2017 10:45	<a href="#">WG989710</a>
Ethane	84.6		0.296	1.29	1	06/16/2017 10:45	<a href="#">WG989710</a>
Ethene	43.1		0.422	1.27	1	06/16/2017 10:45	<a href="#">WG989710</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.76	J	1.05	25.0	1	06/19/2017 20:37	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/19/2017 20:37	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromomethane	U		0.157	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/19/2017 20:37	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 20:37	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 20:37	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 20:37	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 20:37	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 20:37	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 20:37	WG989777
1,1-Dichloroethene	1.98		0.188	0.500	1	06/19/2017 20:37	WG989777
cis-1,2-Dichloroethene	120		0.0933	0.500	1	06/19/2017 20:37	WG989777
trans-1,2-Dichloroethene	0.369	J	0.152	0.500	1	06/19/2017 20:37	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 20:37	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 20:37	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 20:37	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 20:37	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 20:37	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 20:37	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 20:37	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 20:37	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 20:37	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 20:37	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 20:37	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 20:37	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 20:37	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 20:37	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 20:37	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 20:37	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 20:37	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 20:37	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 20:37	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 20:37	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 20:37	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 20:37	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 20:37	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 20:37	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 20:37	WG989777
Tetrachloroethene	0.626		0.199	0.500	1	06/19/2017 20:37	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 20:37	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 20:37	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 20:37	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 20:37	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 20:37	WG989777
Trichloroethene	23.0		0.153	0.500	1	06/19/2017 20:37	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 20:37	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 20:37	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 20:37	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 20:37	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 20:37	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 20:37	WG989777
Vinyl chloride	69.2		0.118	0.500	1	06/19/2017 20:37	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 20:37	WG989777
(S) Toluene-d8	101			80.0-120		06/19/2017 20:37	WG989777
(S) Dibromofluoromethane	105			76.0-123		06/19/2017 20:37	WG989777
(S) 4-Bromofluorobenzene	100			80.0-120		06/19/2017 20:37	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3227880-2 06/22/17 00:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	2830	J	2710	20000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

L915502-01 Original Sample (OS) • Duplicate (DUP)

(OS) L915502-01 06/22/17 00:26 • (DUP) R3227880-3 06/22/17 00:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ND	17500	1	0.000		20

<sup>4</sup> Cn

<sup>5</sup> Sr

L916773-17 Original Sample (OS) • Duplicate (DUP)

(OS) L916773-17 06/22/17 06:48 • (DUP) R3227880-6 06/22/17 06:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	101000	99200	1	2.00		20

<sup>6</sup> Qc

<sup>7</sup> Gl

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

(LCS) R3227880-4 06/22/17 01:24 • (LCSD) R3227880-5 06/22/17 02:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	109000	108000	109	108	85.0-115			2.00	20

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3226220-1 06/15/17 07:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	117	J	77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L915950-01 Original Sample (OS) • Duplicate (DUP)

(OS) L915950-01 06/15/17 09:06 • (DUP) R3226220-4 06/15/17 09:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	24600	24500	1	1		15
Nitrate	1190	1180	1	1		15
Sulfate	28400	28300	1	0		15

L915998-02 Original Sample (OS) • Duplicate (DUP)

(OS) L915998-02 06/15/17 12:52 • (DUP) R3226220-6 06/15/17 13:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	13900	14300	1	2		15
Nitrate	102	102	1	0		15
Sulfate	ND	1190	1	0		15

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

(LCS) R3226220-2 06/15/17 07:15 • (LCSD) R3226220-3 06/15/17 07:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39500	39600	99	99	80-120			0	15
Nitrate	8000	8080	8080	101	101	80-120			0	15
Sulfate	40000	39900	39900	100	100	80-120			0	15

L915950-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L915950-03 06/15/17 09:50 • (MS) R3226220-5 06/15/17 10:05

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	28500	77500	98	1	80-120	
Nitrate	5000	1760	6680	98	1	80-120	



L915950-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L915950-03 06/15/17 09:50 • (MS) R3226220-5 06/15/17 10:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50000	23100	71900	98	1	80-120	

L916078-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916078-14 06/15/17 15:21 • (MS) R3226220-7 06/15/17 15:36 • (MSD) R3226220-8 06/15/17 15:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	6910	57700	57600	102	101	1	80-120			0	15
Nitrate	5000	1350	6450	6440	102	102	1	80-120			0	15
Sulfate	50000	ND	51900	51900	102	102	1	80-120			0	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) R3226627-1 06/16/17 12:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

<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

L915586-04 Original Sample (OS) • Duplicate (DUP)

(OS) L915586-04 06/16/17 14:46 • (DUP) R3226627-3 06/16/17 15:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1420	1490	1	5		20

L916081-03 Original Sample (OS) • Duplicate (DUP)

(OS) L916081-03 06/16/17 21:50 • (DUP) R3226627-7 06/16/17 22:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1020	992	1	3	J	20

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

(LCS) R3226627-2 06/16/17 14:12 • (LCSD) R3226627-4 06/16/17 16:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71200	71600	95	96	85-115			1	20

L915799-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L915799-01 06/16/17 17:27 • (MS) R3226627-5 06/16/17 17:45 • (MSD) R3226627-6 06/16/17 18:02

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	6600	50500	49600	88	86	1	80-120			2	20



Method Blank (MB)

(MB) R3226906-1 06/19/17 10:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L916181-04 Original Sample (OS) • Duplicate (DUP)

(OS) L916181-04 06/19/17 12:18 • (DUP) R3226906-3 06/19/17 12:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	637	1	0		20

L916429-03 Original Sample (OS) • Duplicate (DUP)

(OS) L916429-03 06/19/17 19:13 • (DUP) R3226906-7 06/19/17 19:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	2250	2200	1	2		20

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

(LCS) R3226906-2 06/19/17 11:32 • (LCSD) R3226906-4 06/19/17 13:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71200	72200	95	96	85-115			1	20

L916184-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916184-01 06/19/17 15:42 • (MS) R3226906-5 06/19/17 16:00 • (MSD) R3226906-6 06/19/17 16:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	16600	64000	64400	95	96	1	80-120			1	20



Method Blank (MB)

(MB) R3227505-1 06/21/17 13:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	0.371	J	0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3227505-2 06/21/17 13:39 • (LCSD) R3227505-3 06/21/17 13:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4780	4760	96	95	80-120			0	20
Manganese	50.0	45.8	45.4	92	91	80-120			1	20

5 Sr

6 Qc

L916657-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916657-02 06/21/17 13:46 • (MS) R3227505-5 06/21/17 13:53 • (MSD) R3227505-6 06/21/17 13:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	17.9	4710	4650	94	93	1	75-125			1	20
Manganese	50.0	144	190	189	92	89	1	75-125			1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3226293-1 06/16/17 10:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L916025-02 Original Sample (OS) • Duplicate (DUP)

(OS) L916025-02 06/16/17 10:40 • (DUP) R3226293-2 06/16/17 11:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L916295-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916295-01 06/16/17 11:44 • (DUP) R3226293-3 06/16/17 11:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

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

(LCS) R3226293-4 06/16/17 11:58 • (LCSD) R3226293-5 06/16/17 12:07

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	63.8	76.7	94.2	113	70.0-130			18.3	20
Ethane	129	121	127	94.0	98.5	70.0-130			4.68	20
Ethene	127	116	121	91.6	94.9	70.0-130			3.60	20



Method Blank (MB)

(MB) R3227153-3 06/17/17 11:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500
2-Hexanone	U		0.757	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





Method Blank (MB)

(MB) R3227153-3 06/17/17 11:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
n-Hexane	U		0.305	5.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
Methyl tert-butyl ether	U		0.102	0.500
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Naphthalene	U		0.174	2.50
1,1,2,2-Tetrachloroethane	U		0.130	0.500
n-Propylbenzene	U		0.162	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
Toluene	U		0.412	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
Trichloroethene	U		0.153	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,2,4-Trimethylbenzene	U		0.123	0.500
Vinyl chloride	U		0.118	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	99.8			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) R3227153-1 06/17/17 08:45 • (LCSD) R3227153-2 06/17/17 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	25.0	25.8	25.9	103	104	76.0-122			0.370	20
Acetone	125	142	140	113	112	10.0-160			0.890	23
Acrylonitrile	125	121	129	97.1	103	60.0-142			5.78	20
Benzene	25.0	25.0	25.1	99.9	101	69.0-123			0.620	20
trans-1,4-Dichloro-2-butene	25.0	19.0	19.9	75.8	79.5	55.0-134			4.72	20
Bromobenzene	25.0	24.0	24.5	96.0	98.1	79.0-120			2.17	20
Bromodichloromethane	25.0	25.5	25.0	102	99.9	76.0-120			2.25	20
Bromoform	25.0	26.3	26.8	105	107	67.0-132			1.99	20
2-Hexanone	125	144	144	115	115	58.0-147			0.210	20
Bromomethane	25.0	19.2	18.0	76.8	72.0	18.0-160			6.48	20
Iodomethane	125	103	117	82.1	93.4	57.0-140			12.8	20
n-Butylbenzene	25.0	23.6	24.5	94.3	97.9	72.0-126			3.74	20
sec-Butylbenzene	25.0	23.3	24.5	93.3	98.0	74.0-121			4.92	20
tert-Butylbenzene	25.0	23.3	24.5	93.4	98.2	75.0-122			5.02	20
Carbon disulfide	25.0	29.7	30.3	119	121	55.0-127			1.94	20
Carbon tetrachloride	25.0	26.4	26.9	105	108	63.0-122			2.00	20
Chlorobenzene	25.0	25.4	26.2	102	105	79.0-121			2.85	20
Chlorodibromomethane	25.0	27.2	27.2	109	109	75.0-125			0.0900	20
Chloroethane	25.0	22.2	22.2	88.9	88.7	47.0-152			0.230	20
Chloroform	25.0	24.1	24.0	96.4	96.1	72.0-121			0.370	20
Chloromethane	25.0	21.5	22.2	85.9	88.8	48.0-139			3.41	20
2-Chlorotoluene	25.0	24.2	24.8	96.9	99.3	74.0-122			2.46	20
4-Chlorotoluene	25.0	24.6	25.5	98.6	102	79.0-120			3.57	20
1,2-Dibromo-3-Chloropropane	25.0	22.4	23.6	89.6	94.5	64.0-127			5.33	20
1,2-Dibromoethane	25.0	25.7	26.7	103	107	77.0-123			3.65	20
1,2-Dichlorobenzene	25.0	25.6	26.0	102	104	80.0-120			1.68	20
Dibromomethane	25.0	25.5	25.8	102	103	78.0-120			1.10	20
1,3-Dichlorobenzene	25.0	24.8	25.3	99.3	101	72.0-123			1.98	20
1,4-Dichlorobenzene	25.0	24.9	24.9	99.4	99.4	77.0-120			0.0300	20
Dichlorodifluoromethane	25.0	25.7	25.3	103	101	49.0-155			1.31	20
1,1-Dichloroethane	25.0	24.9	25.0	99.6	100	70.0-126			0.570	20
1,2-Dichloroethane	25.0	25.6	25.6	102	103	67.0-126			0.270	20
1,1-Dichloroethene	25.0	29.1	29.2	116	117	64.0-129			0.400	20
Vinyl acetate	125	80.5	88.2	64.4	70.6	46.0-160			9.15	20
cis-1,2-Dichloroethene	25.0	24.6	25.5	98.6	102	73.0-120			3.44	20
trans-1,2-Dichloroethene	25.0	25.1	25.6	100	103	71.0-121			2.25	20
1,2-Dichloropropane	25.0	25.0	25.3	100	101	75.0-125			1.08	20
1,1-Dichloropropene	25.0	25.7	26.1	103	104	71.0-129			1.41	20
1,3-Dichloropropane	25.0	25.6	25.9	103	103	80.0-121			0.810	20
cis-1,3-Dichloropropene	25.0	24.7	24.9	98.9	99.4	79.0-123			0.570	20

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) R3227153-1 06/17/17 08:45 • (LCSD) R3227153-2 06/17/17 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	25.0	24.7	24.9	98.9	99.8	74.0-127			0.880	20
2,2-Dichloropropane	25.0	22.3	22.6	89.0	90.2	60.0-125			1.36	20
Di-isopropyl ether	25.0	25.2	25.2	101	101	59.0-133			0.0700	20
Ethylbenzene	25.0	25.7	26.4	103	105	77.0-120			2.59	20
Hexachloro-1,3-butadiene	25.0	23.5	24.0	94.0	95.8	64.0-131			1.93	20
n-Hexane	25.0	23.5	23.4	94.1	93.7	56.0-124			0.390	20
Isopropylbenzene	25.0	24.4	25.2	97.4	101	75.0-120			3.27	20
p-Isopropyltoluene	25.0	23.6	24.6	94.6	98.4	74.0-126			3.95	20
2-Butanone (MEK)	125	122	122	97.9	97.4	37.0-158			0.480	20
Methylene Chloride	25.0	24.7	24.7	98.8	98.8	66.0-121			0.0300	20
4-Methyl-2-pentanone (MIBK)	125	127	129	102	103	59.0-143			1.85	20
Methyl tert-butyl ether	25.0	25.3	25.0	101	99.9	64.0-123			1.17	20
Naphthalene	25.0	22.4	23.5	89.6	94.0	62.0-128			4.87	20
n-Propylbenzene	25.0	24.1	24.6	96.5	98.4	79.0-120			1.93	20
Styrene	25.0	25.4	25.7	101	103	78.0-124			1.15	20
1,1,1,2-Tetrachloroethane	25.0	25.9	25.8	104	103	75.0-122			0.650	20
1,1,2,2-Tetrachloroethane	25.0	22.1	22.9	88.4	91.6	71.0-122			3.56	20
Tetrachloroethene	25.0	26.2	26.6	105	106	70.0-127			1.53	20
Toluene	25.0	25.8	25.8	103	103	77.0-120			0.0800	20
1,1,2-Trichlorotrifluoroethane	25.0	28.8	29.2	115	117	61.0-136			1.54	20
1,2,3-Trichlorobenzene	25.0	22.5	22.6	90.2	90.5	61.0-133			0.370	20
1,1,1-Trichloroethane	25.0	26.8	27.0	107	108	68.0-122			0.740	20
1,2,4-Trichlorobenzene	25.0	25.1	26.4	100	106	69.0-129			5.32	20
1,1,2-Trichloroethane	25.0	25.7	26.1	103	104	78.0-120			1.56	20
Trichloroethene	25.0	26.5	27.4	106	110	78.0-120			3.37	20
Trichlorofluoromethane	25.0	26.3	26.2	105	105	56.0-137			0.420	20
1,2,3-Trichloropropane	25.0	22.8	24.5	91.2	97.9	72.0-124			7.10	20
1,2,3-Trimethylbenzene	25.0	25.2	25.8	101	103	75.0-120			2.40	20
1,2,4-Trimethylbenzene	25.0	24.6	24.9	98.5	99.6	75.0-120			1.20	20
1,3,5-Trimethylbenzene	25.0	24.1	24.4	96.6	97.5	75.0-120			0.900	20
Vinyl chloride	25.0	24.6	25.2	98.5	101	64.0-133			2.48	20
Xylenes, Total	75.0	75.8	75.8	101	101	77.0-120			0.000	20
(S) Toluene-d8				106	106	80.0-120				
(S) Dibromofluoromethane				98.8	99.2	76.0-123				
(S) 4-Bromofluorobenzene				101	103	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



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
J	The identification of the analyte is acceptable; the reported value is an estimate.

<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		

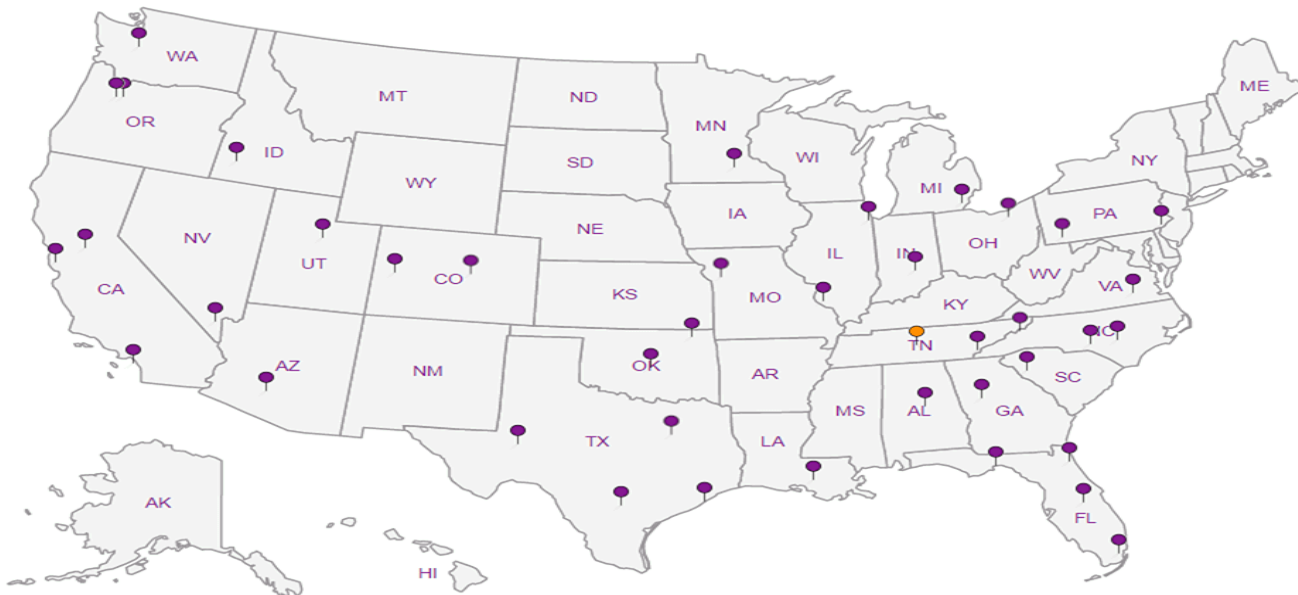
## Third Party & Federal Accreditations

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.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



**PES Environmental, Inc.- WA**

1215 Fourth Ave., Suite 1350  
Seattle, WA 98161

Billing Information:  
Attn: Accounts Payable  
1215 Fourth Ave., Ste. 1350  
Seattle, WA 98161

Report to:  
**Bill Haldeman**

Email To: bhaldean@pesenv.com

Project  
Description: **American Linen Supply**

City/State  
Collected: **SEATTLE, WA**

Phone: **206-529-3980**  
Fax: **206-529-3985**

Client Project #  
**1413.001.02.002**

Lab Project #  
**PESENVSWA-141300102**

Collected by (print):  
**SHANNON MCKERNAN**

Site/Facility ID #  
**700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N  Y

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



YOUR LAB OF CHOICE

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



L# **916025**

**F004**

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **5-31-17**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk, Cl, NO3, SO4 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl	Remarks	Sample # (lab only)
MW105-061317061417	GRAB	GW	135	6/14/17	1030	4								-01
BB-8-061417	GRAB	GW	35	↓	1050	9	X	X	X	X	X	X		-02
SGL-MW100-061417		GW												
SGL-MW101-061417	GRAB	GW	12	6/14/17	1300	4								-03
MW122-061417	↓	GW	112	↓	1300	4								-04
MW111-061417	↓	GW	75	↓	1500	9	X	X	X	X	X	X		-05
MW103-061417	↓	GW	108.5	↓	1500	9	X	X	X	X	X	X		-06
		GW												
		GW												
		GW												

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

Remarks: \*NO3 nitrate has a 48 hour holding time

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

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

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:  NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  
*[Signature]*

Date: **6/14/17**  
Time: **1625**

Received by: (Signature)

Trip Blank Received: Yes/No  
 HCL / MeOH  
TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: **7.9° C** Bottles Received: **39**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

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

Received for lab by: (Signature)  
*[Signature]*

Date: **6/16/17** Time: **845**

Hold: \_\_\_\_\_ Condition: NCF / OK

## MEMORANDUM

**TO:** Project File **DATE:** July 24, 2017  
**FROM:** Jessie Compeau  
**SUBJECT:** Laboratory Data Validation Review  
**PROJECT:** Former American Linen Supply Site, Seattle WA  
**PROJECT #:** 1413.001.02.002  
**TASK:** June 14, 2017- Groundwater Samples  
**LAB:** ESC Lab ID L916025

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Six (6) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 14, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22<sup>nd</sup> Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L916025. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L916025 is summarized below.

## **DATA QUALIFICATIONS**

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

## **DATA VALIDATION**

### **Completeness**

All samples were collected and analyzed as requested.

### **Sample Collection and Preservation**

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.8 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. Temperature receipt was confirmed by ESC since the chain of custody notes were difficult to read. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

### **Holding Times**

#### *USEPA Method 8260C:*

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *Method RSK-175:*

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *USEPA Method 6020:*

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

#### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

### **Initial and Continuing Calibration**

Calibration data for this project are not required for this deliverable and ESC notes do not indicate any issues with the calibrations.

## **Method Blank Results**

### *USEPA Method 8260C:*

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

### *Method RSK-175:*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

### *USEPA Method 6020:*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL with the following discussion:

- Low level manganese was detected in the method blank (WG990560) less than the RDL but greater than the method detection limit (MDL). No action was necessary as associated manganese results are significantly greater than low level manganese detection in the blank.

### *General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):*

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- Low levels of alkalinity and sulfate were detected in the respective method blanks between the RDL and MDL. No action was necessary as associated alkalinity and sulfate sample results are significantly greater than the detections in the blank.

## **Trip Blank Results**

### *USEPA Method 8260C:*

A trip blank was not collected.

## **Field, Rinsate, or Equipment Blank Results**

Field, rinsate, or equipment blanks were not collected.

## **Field Duplicate Analyses**

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

## **Laboratory Duplicate Analyses**

### *USEPA Method 8260C:*

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample

duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

*Method RSK-175:*

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client sample and on sample BB-8-061417. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

*USEPA Method 6020:*

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

*General Chemistry:*

*SM 2320B:* Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

*EPA Method 9056A:* Laboratory duplicate samples were performed on non-client samples within the analytical batch. The primary/duplicate RPDs for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

*EPA Method 9060A:* A laboratory duplicate sample was performed on non-client samples within the analytical batches. The primary/duplicate RPD for TOC analyses are within the laboratory control limit of 20%.

**Surrogate Recoveries**

*USEPA Method 8260C:*

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

**Laboratory Control Samples**

*USEPA Method 8260C:*

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

*Method RSK-175:*

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

*USEPA Method 6020:*

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.



*General Chemistry:*

*SM 2320B:* The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

*EPA Method 9056A:* The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

*EPA Method 9060A:* The LCS/LCSD %Rs and RPDs for TOC are within the laboratory control criteria for water for each analytical batch.

**Matrix Spike/Matrix Spike Duplicates**

*USEPA Method 8260C:*

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

*Method RSK-175:*

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

*USEPA Method 6020:*

MS/MSD analysis was performed on non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

*General Chemistry:*

*SM 2320B:* Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

*EPA Method 9056A:* MS/MSD analyses were performed on non-client samples within the analytical batch. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

*EPA Method 9060A:* MS/MSD analyses were performed on non-client sample within the analytical batches. MS/MSD % Rs and RPDs for TOC were within the laboratory control criteria for water.

**Other Quality Control Issues**

No laboratory quality control issues were identified in the laboratory report.

**Quantitation Limits**

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

**Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.**

### **Data Assessment**

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Other than detections between the MDL and RDL no other data qualifiers were assigned. Laboratory report pages with the less than RDL qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/14/17 10:30

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	1.18	J ↓	1.05	25.0	1	06/19/2017 18:44	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 18:44	WG989777
Benzene	U		0.0896	0.500	1	06/19/2017 18:44	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 18:44	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 18:44	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 18:44	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 18:44	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 18:44	WG989777
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 18:44	WG989777
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 18:44	WG989777
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 18:44	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 18:44	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 18:44	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 18:44	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 18:44	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 18:44	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 18:44	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 18:44	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 18:44	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 18:44	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 18:44	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 18:44	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 18:44	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 18:44	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 18:44	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 18:44	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 18:44	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 18:44	WG989777
cis-1,2-Dichloroethene	0.180	J ↓	0.0933	0.500	1	06/19/2017 18:44	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 18:44	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 18:44	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 18:44	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 18:44	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 18:44	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 18:44	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 18:44	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 18:44	WG989777
Di-Isopropyl ether	U		0.0924	0.500	1	06/19/2017 18:44	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 18:44	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 18:44	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 18:44	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 18:44	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 18:44	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 18:44	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 18:44	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 18:44	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 18:44	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 18:44	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 18:44	WG989777
Naphthalene	1.41	J ↓	0.174	2.50	1	06/19/2017 18:44	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 18:44	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 18:44	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 18:44	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 18:44	WG989777

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

QC 7/24/17

MW105-061417

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/14/17 10:30

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
	ug/l		ug/l	ug/l				
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 18:44	WG989777	1 Cp
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 18:44	WG989777	2 Tc
Toluene	U		0.412	0.500	1	06/19/2017 18:44	WG989777	3 Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 18:44	WG989777	4 Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 18:44	WG989777	
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 18:44	WG989777	
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 18:44	WG989777	
Trichloroethene	0.356	J J	0.153	0.500	1	06/19/2017 18:44	WG989777	5 Sr
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 18:44	WG989777	
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 18:44	WG989777	
1,2,4-Trimethylbenzene	0.216	J J	0.123	0.500	1	06/19/2017 18:44	WG989777	6 Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 18:44	WG989777	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 18:44	WG989777	
Vinyl acetate	U		0.645	5.00	1	06/19/2017 18:44	WG989777	7 Gl
Vinyl chloride	0.514		0.118	0.500	1	06/19/2017 18:44	WG989777	8 Al
Xylenes, Total	U		0.316	1.50	1	06/19/2017 18:44	WG989777	9 Sc
(S) Toluene-d8	100			80.0-120		06/19/2017 18:44	WG989777	
(S) Dibromofluoromethane	108			76.0-123		06/19/2017 18:44	WG989777	
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 18:44	WG989777	

*Jc 7/21/17*





Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	290000		2710	20000	1	06/22/2017 01:33	<a href="#">WG990920</a>

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	10200		51.9	1000	1	06/15/2017 13:52	<a href="#">WG989400</a>
Nitrate	2740		22.7	100	1	06/15/2017 13:52	<a href="#">WG989400</a>
Sulfate	56900		77.4	5000	1	06/15/2017 13:52	<a href="#">WG989400</a>

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3340		102	1000	1	06/16/2017 19:17	<a href="#">WG989915</a>

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	34.8	J ↓	15.0	100	1	06/21/2017 14:19	<a href="#">WG990560</a>
Manganese	47.5		0.250	5.00	1	06/21/2017 14:19	<a href="#">WG990560</a>

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	U		0.287	0.678	1	06/16/2017 10:40	<a href="#">WG989710</a>
Ethane	U		0.296	1.29	1	06/16/2017 10:40	<a href="#">WG989710</a>
Ethene	U		0.422	1.27	1	06/16/2017 10:40	<a href="#">WG989710</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.50	J ↓	1.05	25.0	1	06/19/2017 19:06	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:06	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Bromomethane	U		0.157	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/19/2017 19:06	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:06	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:06	<a href="#">WG989777</a>

*JCA 7/24/17*





Collected date/time: 06/14/17 10:50

L916025

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:06	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:06	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:06	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:06	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:06	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:06	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:06	WG989777
cis-1,2-Dichloroethene	12.6		0.0933	0.500	1	06/19/2017 19:06	WG989777
trans-1,2-Dichloroethene	0.155	J ↓	0.152	0.500	1	06/19/2017 19:06	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:06	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:06	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:06	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:06	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:06	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:06	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:06	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:06	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 19:06	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:06	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:06	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 19:06	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:06	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 19:06	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:06	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:06	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:06	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:06	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:06	WG989777
Naphthalene	0.184	J ↓	0.174	2.50	1	06/19/2017 19:06	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 19:06	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:06	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:06	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:06	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:06	WG989777
Tetrachloroethene	26.0		0.199	0.500	1	06/19/2017 19:06	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 19:06	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:06	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:06	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:06	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:06	WG989777
Trichloroethene	8.57		0.153	0.500	1	06/19/2017 19:06	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:06	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:06	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 19:06	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 19:06	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 19:06	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:06	WG989777
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:06	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 19:06	WG989777
(S) Toluene-d8	103			80.0-120		06/19/2017 19:06	WG989777
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 19:06	WG989777
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 19:06	WG989777

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC 7/24/17





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/19/2017 19:29	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:29	WG989777
Benzene	18.6		0.0896	0.500	1	06/19/2017 19:29	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:29	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:29	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:29	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 19:29	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 19:29	WG989777
n-Butylbenzene	6.97		0.143	0.500	1	06/19/2017 19:29	WG989777
sec-Butylbenzene	8.01		0.134	0.500	1	06/19/2017 19:29	WG989777
tert-Butylbenzene	0.219	J	0.183	0.500	1	06/19/2017 19:29	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:29	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:29	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:29	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:29	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 19:29	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 19:29	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 19:29	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:29	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:29	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:29	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:29	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:29	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:29	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:29	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:29	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:29	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:29	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/19/2017 19:29	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 19:29	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:29	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:29	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:29	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:29	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:29	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:29	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:29	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:29	WG989777
Ethylbenzene	17.1		0.158	0.500	1	06/19/2017 19:29	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:29	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:29	WG989777
n-Hexane	3.39	J	0.305	5.00	1	06/19/2017 19:29	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:29	WG989777
Isopropylbenzene	29.9		0.126	0.500	1	06/19/2017 19:29	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:29	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:29	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:29	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:29	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:29	WG989777
Naphthalene	4.76		0.174	2.50	1	06/19/2017 19:29	WG989777
n-Propylbenzene	75.3		0.162	0.500	1	06/19/2017 19:29	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:29	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:29	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:29	WG989777

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

*JC*  
*7/24/17*



Collected date/time: 06/14/17 13:00

L916025

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Toluene	1.68		0.412	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Trichloroethene	U		0.153	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,4-Trimethylbenzene	1.12		0.123	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,2,3-Trimethylbenzene	2.03		0.0739	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
1,3,5-Trimethylbenzene	0.185	J	0.124	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:29	<a href="#">WG989777</a>
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:29	<a href="#">WG989777</a>
Xylenes, Total	3.50		0.316	1.50	1	06/19/2017 19:29	<a href="#">WG989777</a>
(S) Toluene-d8	102			80.0-120		06/19/2017 19:29	<a href="#">WG989777</a>
(S) Dibromofluoromethane	105			76.0-123		06/19/2017 19:29	<a href="#">WG989777</a>
(S) 4-Bromofluorobenzene	98.1			80.0-120		06/19/2017 19:29	<a href="#">WG989777</a>

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

JC  
7/24/17





Collected date/time: 06/14/17 13:00

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/19/2017 19:52	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 19:52	WG989777
Benzene	U		0.0896	0.500	1	06/19/2017 19:52	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 19:52	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 19:52	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 19:52	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 19:52	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 19:52	WG989777
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 19:52	WG989777
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 19:52	WG989777
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 19:52	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 19:52	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 19:52	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 19:52	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 19:52	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 19:52	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 19:52	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 19:52	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 19:52	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 19:52	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 19:52	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 19:52	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 19:52	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 19:52	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 19:52	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 19:52	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 19:52	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 19:52	WG989777
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/19/2017 19:52	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 19:52	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 19:52	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 19:52	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 19:52	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 19:52	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 19:52	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 19:52	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 19:52	WG989777
Di-isopropyl ether	U		0.0924	0.500	1	06/19/2017 19:52	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 19:52	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 19:52	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 19:52	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 19:52	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 19:52	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 19:52	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 19:52	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 19:52	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 19:52	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 19:52	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 19:52	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 19:52	WG989777
n-Propylbenzene	0.382	J U	0.162	0.500	1	06/19/2017 19:52	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 19:52	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 19:52	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 19:52	WG989777

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

*Jc*  
*6/24/17*

MW122-061417

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/14/17 13:00

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 19:52	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 19:52	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 19:52	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 19:52	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 19:52	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 19:52	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 19:52	WG989777
Trichloroethene	0.162	J	0.153	0.500	1	06/19/2017 19:52	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 19:52	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 19:52	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 19:52	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 19:52	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 19:52	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 19:52	WG989777
Vinyl chloride	U		0.118	0.500	1	06/19/2017 19:52	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 19:52	WG989777
(S) Toluene-d8	99.9			80.0-120		06/19/2017 19:52	WG989777
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 19:52	WG989777
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 19:52	WG989777

- Cp
- Tc
- Ss
- Cn
- Si
- Qc
- Gl
- Al
- Sc

JC  
7/24/17





Collected date/time: 06/14/17 15:00

L916025

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	202000		2710	20000	1	06/22/2017 01:40	WG990920

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	23200		51.9	1000	1	06/15/2017 14:22	WG989400
Nitrate	U		22.7	100	1	06/15/2017 14:22	WG989400
Sulfate	8970		77.4	5000	1	06/15/2017 14:22	WG989400

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1200		102	1000	1	06/19/2017 11:47	WG990593

<sup>6</sup> Qc

<sup>7</sup> Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	298		15.0	100	1	06/21/2017 14:22	WG990560
Manganese	142		0.250	5.00	1	06/21/2017 14:22	WG990560

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	231		0.287	0.678	1	06/16/2017 10:43	WG989710
Ethane	7.73		0.296	1.29	1	06/16/2017 10:43	WG989710
Ethene	6.71		0.422	1.27	1	06/16/2017 10:43	WG989710

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/19/2017 20:15	WG989777
Acrylonitrile	U		0.873	5.00	1	06/19/2017 20:15	WG989777
Benzene	U		0.0896	0.500	1	06/19/2017 20:15	WG989777
Bromobenzene	U		0.133	0.500	1	06/19/2017 20:15	WG989777
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 20:15	WG989777
Bromochloromethane	U		0.145	0.500	1	06/19/2017 20:15	WG989777
Bromoform	U		0.186	0.500	1	06/19/2017 20:15	WG989777
Bromomethane	U		0.157	2.50	1	06/19/2017 20:15	WG989777
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 20:15	WG989777
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 20:15	WG989777
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 20:15	WG989777
Carbon disulfide	U		0.101	0.500	1	06/19/2017 20:15	WG989777
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 20:15	WG989777
Chlorobenzene	U		0.140	0.500	1	06/19/2017 20:15	WG989777
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 20:15	WG989777
Chloroethane	U		0.141	2.50	1	06/19/2017 20:15	WG989777
Chloroform	U		0.0860	0.500	1	06/19/2017 20:15	WG989777
Chloromethane	U		0.153	1.25	1	06/19/2017 20:15	WG989777
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 20:15	WG989777
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 20:15	WG989777
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 20:15	WG989777
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 20:15	WG989777
Dibromomethane	U		0.117	0.500	1	06/19/2017 20:15	WG989777

*JC*  
7/24/17



MW111-061417

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 06/14/17 15:00

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 20:15	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 20:15	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 20:15	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 20:15	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 20:15	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 20:15	WG989777
1,1-Dichloroethene	U		0.188	0.500	1	06/19/2017 20:15	WG989777
cis-1,2-Dichloroethene	1.24		0.0933	0.500	1	06/19/2017 20:15	WG989777
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/19/2017 20:15	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 20:15	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 20:15	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 20:15	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 20:15	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 20:15	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 20:15	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 20:15	WG989777
Di-Isopropyl ether	U		0.0924	0.500	1	06/19/2017 20:15	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 20:15	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 20:15	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 20:15	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 20:15	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 20:15	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 20:15	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 20:15	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 20:15	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 20:15	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 20:15	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 20:15	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 20:15	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 20:15	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 20:15	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 20:15	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 20:15	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 20:15	WG989777
Tetrachloroethene	U		0.199	0.500	1	06/19/2017 20:15	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 20:15	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 20:15	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 20:15	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 20:15	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 20:15	WG989777
Trichloroethene	0.408	J	0.153	0.500	1	06/19/2017 20:15	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 20:15	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 20:15	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 20:15	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 20:15	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 20:15	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 20:15	WG989777
Vinyl chloride	3.22		0.118	0.500	1	06/19/2017 20:15	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 20:15	WG989777
(S) Toluene-d8	101			80.0-120		06/19/2017 20:15	WG989777
(S) Dibromofluoromethane	106			76.0-123		06/19/2017 20:15	WG989777
(S) 4-Bromofluorobenzene	101			80.0-120		06/19/2017 20:15	WG989777

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

*Handwritten signature and date: Jc 7/24/17*



MW103-061417

## SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 06/14/17 15:00

L916025

## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	ug/l		ug/l	ug/l		date / time	
	339000		2710	20000	1	06/22/2017 01:47	<a href="#">WG990920</a>

Cp

Tc

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	ug/l		ug/l	ug/l		date / time	
	34700		51.9	1000	1	06/15/2017 14:37	<a href="#">WG989400</a>
Nitrate	U		22.7	100	1	06/15/2017 14:37	<a href="#">WG989400</a>
Sulfate	28100		77.4	5000	1	06/15/2017 14:37	<a href="#">WG989400</a>

Ss

Cn

Sr

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	ug/l		ug/l	ug/l		date / time	
	2580		102	1000	1	06/19/2017 12:00	<a href="#">WG990593</a>

Qc

Gl

## Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	ug/l		ug/l	ug/l		date / time	
	4560		15.0	100	1	06/21/2017 14:26	<a href="#">WG990560</a>
Manganese	936		0.250	5.00	1	06/21/2017 14:26	<a href="#">WG990560</a>

Al

Sc

## Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	ug/l		ug/l	ug/l		date / time	
	863		0.287	0.678	1	06/16/2017 10:45	<a href="#">WG989710</a>
Ethane	84.6		0.296	1.29	1	06/16/2017 10:45	<a href="#">WG989710</a>
Ethene	43.1		0.422	1.27	1	06/16/2017 10:45	<a href="#">WG989710</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.76	J ↓	1.05	25.0	1	06/19/2017 20:37	<a href="#">WG989777</a>
Acrylonitrile	U		0.873	5.00	1	06/19/2017 20:37	<a href="#">WG989777</a>
Benzene	U		0.0896	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromobenzene	U		0.133	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromodichloromethane	U		0.0800	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromochloromethane	U		0.145	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromoform	U		0.186	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Bromomethane	U		0.157	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
n-Butylbenzene	U		0.143	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
sec-Butylbenzene	U		0.134	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
tert-Butylbenzene	U		0.183	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Carbon disulfide	U		0.101	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Carbon tetrachloride	U		0.159	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chlorobenzene	U		0.140	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chlorodibromomethane	U		0.128	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloroethane	U		0.141	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloroform	U		0.0860	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Chloromethane	U		0.153	1.25	1	06/19/2017 20:37	<a href="#">WG989777</a>
2-Chlorotoluene	U		0.111	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
4-Chlorotoluene	U		0.0972	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	06/19/2017 20:37	<a href="#">WG989777</a>
1,2-Dibromoethane	U		0.193	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>
Dibromomethane	U		0.117	0.500	1	06/19/2017 20:37	<a href="#">WG989777</a>

Jc  
7/24/17



MW103-061417

SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 06/14/17 15:00

L916025

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichlorobenzene	U		0.101	0.500	1	06/19/2017 20:37	WG989777
1,3-Dichlorobenzene	U		0.130	0.500	1	06/19/2017 20:37	WG989777
1,4-Dichlorobenzene	U		0.121	0.500	1	06/19/2017 20:37	WG989777
Dichlorodifluoromethane	U		0.127	2.50	1	06/19/2017 20:37	WG989777
1,1-Dichloroethane	U		0.114	0.500	1	06/19/2017 20:37	WG989777
1,2-Dichloroethane	U		0.108	0.500	1	06/19/2017 20:37	WG989777
1,1-Dichloroethene	1.98		0.188	0.500	1	06/19/2017 20:37	WG989777
cis-1,2-Dichloroethene	120		0.0933	0.500	1	06/19/2017 20:37	WG989777
trans-1,2-Dichloroethene	0.369	J J	0.152	0.500	1	06/19/2017 20:37	WG989777
1,2-Dichloropropane	U		0.190	0.500	1	06/19/2017 20:37	WG989777
1,1-Dichloropropene	U		0.128	0.500	1	06/19/2017 20:37	WG989777
1,3-Dichloropropane	U		0.147	1.00	1	06/19/2017 20:37	WG989777
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/19/2017 20:37	WG989777
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/19/2017 20:37	WG989777
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	06/19/2017 20:37	WG989777
2,2-Dichloropropane	U		0.0929	0.500	1	06/19/2017 20:37	WG989777
Diisopropyl ether	U		0.0924	0.500	1	06/19/2017 20:37	WG989777
Ethylbenzene	U		0.158	0.500	1	06/19/2017 20:37	WG989777
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/19/2017 20:37	WG989777
2-Hexanone	U		0.757	5.00	1	06/19/2017 20:37	WG989777
n-Hexane	U		0.305	5.00	1	06/19/2017 20:37	WG989777
Iodomethane	U		0.377	10.0	1	06/19/2017 20:37	WG989777
Isopropylbenzene	U		0.126	0.500	1	06/19/2017 20:37	WG989777
p-Isopropyltoluene	U		0.138	0.500	1	06/19/2017 20:37	WG989777
2-Butanone (MEK)	U		1.28	5.00	1	06/19/2017 20:37	WG989777
Methylene Chloride	U		1.07	2.50	1	06/19/2017 20:37	WG989777
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/19/2017 20:37	WG989777
Methyl tert-butyl ether	U		0.102	0.500	1	06/19/2017 20:37	WG989777
Naphthalene	U		0.174	2.50	1	06/19/2017 20:37	WG989777
n-Propylbenzene	U		0.162	0.500	1	06/19/2017 20:37	WG989777
Styrene	U		0.117	0.500	1	06/19/2017 20:37	WG989777
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/19/2017 20:37	WG989777
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/19/2017 20:37	WG989777
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/19/2017 20:37	WG989777
Tetrachloroethene	0.626		0.199	0.500	1	06/19/2017 20:37	WG989777
Toluene	U		0.412	0.500	1	06/19/2017 20:37	WG989777
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/19/2017 20:37	WG989777
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/19/2017 20:37	WG989777
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/19/2017 20:37	WG989777
1,1,2-Trichloroethane	U		0.186	0.500	1	06/19/2017 20:37	WG989777
Trichloroethene	23.0		0.153	0.500	1	06/19/2017 20:37	WG989777
Trichlorofluoromethane	U		0.130	2.50	1	06/19/2017 20:37	WG989777
1,2,3-Trichloropropane	U		0.247	2.50	1	06/19/2017 20:37	WG989777
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/19/2017 20:37	WG989777
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/19/2017 20:37	WG989777
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/19/2017 20:37	WG989777
Vinyl acetate	U		0.645	5.00	1	06/19/2017 20:37	WG989777
Vinyl chloride	69.2		0.118	0.500	1	06/19/2017 20:37	WG989777
Xylenes, Total	U		0.316	1.50	1	06/19/2017 20:37	WG989777
(S) Toluene-d8	101			80.0-120		06/19/2017 20:37	WG989777
(S) Dibromofluoromethane	105			76.0-123		06/19/2017 20:37	WG989777
(S) 4-Bromofluorobenzene	100			80.0-120		06/19/2017 20:37	WG989777

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

*Handwritten signature: JC 7/24/17*