

July 10, 2017

## Crestone Peak Resources

Sample Delivery Group: L920025  
Samples Received: 07/01/2017  
Project Number:  
Description: lane 4  
Site: IANE 4  
Report To: David Tewkesbury  
10188 E. Interstate 25 Frontage Rd.  
Firestone, CO 80504

Entire Report Reviewed By:



Shane Gambill  
Technical Service Representative

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





Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
MW-01 L920025-01	5	
MW-02 L920025-02	6	<sup>4</sup> Cn
MW-03 L920025-03	7	<sup>5</sup> Sr
MW-04 L920025-04	8	
MW-05 L920025-05	9	<sup>6</sup> Qc
Qc: Quality Control Summary	10	
Volatile Organic Compounds (GC/MS) by Method 8260B	10	<sup>7</sup> Gl
Gl: Glossary of Terms	11	
Al: Accreditations & Locations	12	<sup>8</sup> Al
Sc: Chain of Custody	13	<sup>9</sup> Sc





## MW-01 L920025-01 GW

Collected by  
David TewkesburyCollected date/time  
06/30/17 11:30Received date/time  
07/01/17 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/09/17 06:16	07/09/17 06:16	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/10/17 04:58	07/10/17 04:58	JAH

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss

## MW-02 L920025-02 GW

Collected by  
David TewkesburyCollected date/time  
06/30/17 11:45Received date/time  
07/01/17 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/09/17 06:33	07/09/17 06:33	BMB

<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc

## MW-03 L920025-03 GW

Collected by  
David TewkesburyCollected date/time  
06/30/17 12:00Received date/time  
07/01/17 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/09/17 06:50	07/09/17 06:50	BMB

<sup>7</sup> Gl<sup>8</sup> Al

## MW-04 L920025-04 GW

Collected by  
David TewkesburyCollected date/time  
06/30/17 12:15Received date/time  
07/01/17 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/09/17 07:07	07/09/17 07:07	BMB

<sup>9</sup> Sc

## MW-05 L920025-05 GW

Collected by  
David TewkesburyCollected date/time  
06/30/17 12:30Received date/time  
07/01/17 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996975	1	07/09/17 07:24	07/09/17 07:24	BMB





All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill  
Technical Service Representative

### Sample Handling and Receiving

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VOC pH outside of method requirement.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L920025-01</a>	<a href="#">MW-01</a>	8260B

<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 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/09/2017 06:16	<a href="#">WG996975</a>
Toluene	ND		0.00100	1	07/09/2017 06:16	<a href="#">WG996975</a>
Ethylbenzene	ND		0.00100	1	07/10/2017 04:58	<a href="#">WG996975</a>
Total Xylenes	ND		0.00300	1	07/10/2017 04:58	<a href="#">WG996975</a>
(S) Toluene-d8	105		80.0-120		07/10/2017 04:58	<a href="#">WG996975</a>
(S) Toluene-d8	108		80.0-120		07/09/2017 06:16	<a href="#">WG996975</a>
(S) Dibromofluoromethane	94.2		76.0-123		07/09/2017 06:16	<a href="#">WG996975</a>
(S) Dibromofluoromethane	94.7		76.0-123		07/10/2017 04:58	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	103		80.0-120		07/09/2017 06:16	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	105		80.0-120		07/10/2017 04:58	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	107		80.0-120		07/10/2017 04:58	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 06:16	<a href="#">WG996975</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/09/2017 06:33	<a href="#">WG996975</a>
Toluene	ND		0.00100	1	07/09/2017 06:33	<a href="#">WG996975</a>
Ethylbenzene	ND		0.00100	1	07/09/2017 06:33	<a href="#">WG996975</a>
Total Xylenes	ND		0.00300	1	07/09/2017 06:33	<a href="#">WG996975</a>
(S) Toluene-d8	111		80.0-120		07/09/2017 06:33	<a href="#">WG996975</a>
(S) Dibromofluoromethane	93.0		76.0-123		07/09/2017 06:33	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	104		80.0-120		07/09/2017 06:33	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 06:33	<a href="#">WG996975</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/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/09/2017 06:50	<a href="#">WG996975</a>
Toluene	ND		0.00100	1	07/09/2017 06:50	<a href="#">WG996975</a>
Ethylbenzene	ND		0.00100	1	07/09/2017 06:50	<a href="#">WG996975</a>
Total Xylenes	ND		0.00300	1	07/09/2017 06:50	<a href="#">WG996975</a>
(S) Toluene-d8	110		80.0-120		07/09/2017 06:50	<a href="#">WG996975</a>
(S) Dibromofluoromethane	93.7		76.0-123		07/09/2017 06:50	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	103		80.0-120		07/09/2017 06:50	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 06:50	<a href="#">WG996975</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/09/2017 07:07	<a href="#">WG996975</a>
Toluene	ND		0.00100	1	07/09/2017 07:07	<a href="#">WG996975</a>
Ethylbenzene	0.00189		0.00100	1	07/09/2017 07:07	<a href="#">WG996975</a>
Total Xylenes	0.206		0.00300	1	07/09/2017 07:07	<a href="#">WG996975</a>
(S) Toluene-d8	106		80.0-120		07/09/2017 07:07	<a href="#">WG996975</a>
(S) Dibromofluoromethane	93.9		76.0-123		07/09/2017 07:07	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	103		80.0-120		07/09/2017 07:07	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	115		80.0-120		07/09/2017 07:07	<a href="#">WG996975</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/09/2017 07:24	<a href="#">WG996975</a>
Toluene	ND		0.00100	1	07/09/2017 07:24	<a href="#">WG996975</a>
Ethylbenzene	ND		0.00100	1	07/09/2017 07:24	<a href="#">WG996975</a>
Total Xylenes	ND		0.00300	1	07/09/2017 07:24	<a href="#">WG996975</a>
(S) Toluene-d8	108		80.0-120		07/09/2017 07:24	<a href="#">WG996975</a>
(S) Dibromofluoromethane	92.5		76.0-123		07/09/2017 07:24	<a href="#">WG996975</a>
(S) a,a,a-Trifluorotoluene	105		80.0-120		07/09/2017 07:24	<a href="#">WG996975</a>
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 07:24	<a href="#">WG996975</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231853-3 07/09/17 04:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	114			80.0-120
(S) Dibromofluoromethane	93.5			76.0-123
(S) a,a,a-Trifluorotoluene	108			80.0-120
(S) 4-Bromofluorobenzene	112			80.0-120

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

(LCS) R3231853-1 07/09/17 04:01 • (LCSD) R3231853-2 07/09/17 04:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0283	0.0264	113	105	69.0-123			7.12	20
Ethylbenzene	0.0250	0.0251	0.0238	100	95.1	77.0-120			5.20	20
Toluene	0.0250	0.0266	0.0250	106	100	77.0-120			6.02	20
Xylenes, Total	0.0750	0.0743	0.0703	99.1	93.7	77.0-120			5.53	20
(S) Toluene-d8				106	104	80.0-120				
(S) Dibromofluoromethane				96.5	94.6	76.0-123				
(S) a,a,a-Trifluorotoluene				99.2	98.2	80.0-120				
(S) 4-Bromofluorobenzene				109	107	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc





Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(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
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The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



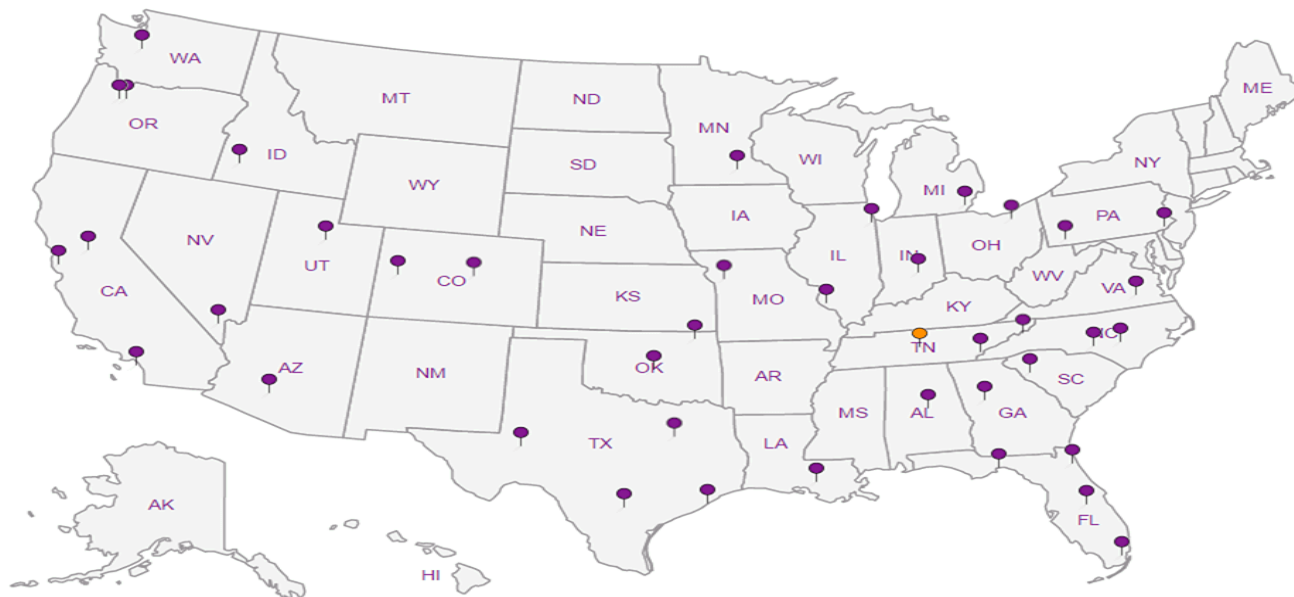


- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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

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

## Our Locations





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