

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

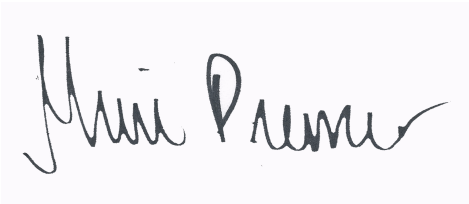
303.277.9310

August 17, 2021

Brent Hedstrom
Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie, WY 82070
RE: Horn Libsack 1
Work Order #2108085

Enclosed are the results of analyses for samples received by Summit Scientific on 08/05/21 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie WY, 82070

Project: Horn Libsack 1
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
08/17/21 10:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Surface Casing	2108085-01	Water	07/22/21 00:00	08/05/21 14:00

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2108085

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S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Client: Crestone Peak Resources

Project Manager: Brent Hedstrom

Address: 10188 East I-25 Frontage road

E-Mail: brent.hedstrom@crestonepr.com

City/State/Zip: Firestone, CO 80504

LOE W768125 8503

COGCC 242428

Phone: 303-434-3007

Project Name: Horn Libsack 1

Sampler Name:

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	Anion	Cations	TDS	BTEX 8020	DRO	GRO	RSK-175			
1	Surface Casing	7/22/2021		2										X	X	X	X	X	X	X		
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
Relinquished by:		Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)				Notes:										
BS		8/3/21 1400		Will Hali		8/5/21 1400		Same Day ___ 72 hours ___				24 hours ___ Standard <input checked="" type="checkbox"/>										
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours ___				Sample Integrity:										
Relinquished by:		Date/Time:		Received by:		Date/Time:		Temperature Upon Receipt: 3.4				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No										

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 210POPS

Client: Crestone Client Project ID: At Horn Libsack 1

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	<u>3.4</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ANIONS
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3 to be added @ LAB
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

WJ
Custodian Printed Name or Initials

Will Sal...
Signature of Custodian

8/5/21
Date/Time



Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie WY, 82070

Project: Horn Libsack 1
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
08/17/21 10:21

Surface Casing
2108085-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/22/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1200000	10000	ug/l	10000	BEH0129	08/09/21	08/10/21	EPA 8260B	
Toluene	ND	1000	"	1000	"	"	"	"	
Ethylbenzene	1600000	10000	"	10000	"	"	"	"	
Xylenes (total)	7700000	20000	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	530000000	5000000	"	"	"	"	"	"	

Date Sampled: **07/22/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		530 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		2680 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		1630 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/22/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	440000	50	mg/L	10	BEH0127	08/09/21	08/10/21	EPA 8015M	

Date Sampled: **07/22/21 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		456 %	58.9-148		"	"	"	"	S-02

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Project: Horn Libsack 1

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
08/17/21 10:21

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BEH0129 - EPA 5030 Water MS

Blank (BEH0129-BLK1)

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Gasoline Range Hydrocarbons	ND	500	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.3		"	13.3		77.0	23-173				
<i>Surrogate: Toluene-d8</i>	12.9		"	13.3		97.1	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	11.6		"	13.3		86.8	21-167				

LCS (BEH0129-BS1)

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	36.0	1.0	ug/l	41.7		86.4	70-130				
Toluene	39.9	1.0	"	41.7		95.8	70-130				
Ethylbenzene	45.5	1.0	"	41.7		109	70-130				
m,p-Xylene	94.7	2.0	"	83.3		114	70-130				
o-Xylene	47.6	1.0	"	41.7		114	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.5		"	13.3		78.8	23-173				
<i>Surrogate: Toluene-d8</i>	12.8		"	13.3		96.2	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	11.9		"	13.3		89.6	21-167				

Matrix Spike (BEH0129-MS1)

Source: 2108079-01

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	38.2	1.0	ug/l	41.7	ND	91.8	70-130				
Toluene	41.8	1.0	"	41.7	ND	100	70-130				
Ethylbenzene	45.6	1.0	"	41.7	ND	109	70-130				
m,p-Xylene	94.7	2.0	"	83.3	ND	114	70-130				
o-Xylene	47.4	1.0	"	41.7	ND	114	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.7		"	13.3		80.0	23-173				
<i>Surrogate: Toluene-d8</i>	13.4		"	13.3		101	20-170				
<i>Surrogate: 4-Bromofluorobenzene</i>	12.0		"	13.3		90.2	21-167				

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BEH0129 - EPA 5030 Water MS

Matrix Spike Dup (BEH0129-MSD1)	Source: 2108079-01			Prepared: 08/09/21 Analyzed: 08/10/21					
Benzene	37.3	1.0	ug/l	41.7	ND	89.5	70-130	2.54	30
Toluene	41.0	1.0	"	41.7	ND	98.4	70-130	1.86	30
Ethylbenzene	45.7	1.0	"	41.7	ND	110	70-130	0.263	30
m,p-Xylene	94.6	2.0	"	83.3	ND	113	70-130	0.106	30
o-Xylene	46.8	1.0	"	41.7	ND	112	70-130	1.34	30
Surrogate: 1,2-Dichloroethane-d4	10.4		"	13.3		78.2	23-173		
Surrogate: Toluene-d8	13.0		"	13.3		97.5	20-170		
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.4	21-167		

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Project Number: [none]
 Project Manager: Brent Hedstrom

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BEH0127 - EPA 3520B

Blank (BEH0127-BLK1)

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO) ND 5.0 mg/L

LCS (BEH0127-BS1)

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO) 56.9 5.0 mg/L 50.0 114 70-130

Matrix Spike (BEH0127-MS1)

Source: 2108084-01

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO) 56.2 5.0 mg/L 50.0 3.17 106 70-130

Matrix Spike Dup (BEH0127-MSD1)

Source: 2108084-01

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO) 54.5 5.0 mg/L 50.0 3.17 103 70-130 2.93 20

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Project: Horn Libsack 1
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
08/17/21 10:21

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference