

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

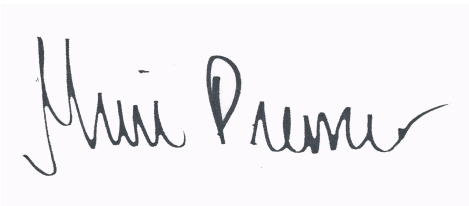
303.277.9310

July 26, 2021

Brent Hedstrom
Crestone Peak Resources
2020 E. Grand Avenue, Suite 515
Laramie, WY 82070
RE: Marcus State 3A-36H
Work Order #2107152

Enclosed are the results of analyses for samples received by Summit Scientific on 07/12/21 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



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

Project: Marcus State 3A-36H

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Surface Casing	2107152-01	Water	07/02/21 10:30	07/12/21 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2107152

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

COGCC 433050 LOE W71857 8503

Phone: 303-434-3007

Project Name: Marcus State 3A-36H

Sampler Name:

Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Anion	Cations	TDS	BTEX 8020	DRO	GRO	RSK-175		
1	Surface Casing	7/2/2021	10:30	1									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:
<i>BL</i>	7-12-21 930AM	<i>John B</i>	7/12/21 1700	Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input type="checkbox"/>	Notes:
				Sample Integrity:	
				Temperature Upon Receipt: <u>12</u>	
				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 2107152

Client: Crestone

Client Project ID: Marcus State 3A-364

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

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☐ Water ☒ Other: Surface Casing
(Describe)

Temp (°C)	12
-----------	----

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"/>	On ice
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

JB

Custodian Printed Name or Initials

John Doe
Signature of Custodian

7/12/21
Date/Time



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

Project: Marcus State 3A-36H
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Surface Casing
2107152-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.4	1.0	ug/l	1	BEG0266	07/15/21	07/19/21	EPA 8260B	
Toluene	3.7	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	500	"	"	"	"	"	"	

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		53.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		123 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	5.0	mg/L	1	BEG0222	07/13/21	07/20/21	EPA 8015M	

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		176 %	58.9-148		"	"	"	"	S-02

Total Metals by EPA Method 200.8

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20800	5000	ug/l	100	BEG0292	07/16/21	07/19/21	EPA 200.8	
Magnesium	ND	5000	"	"	"	"	"	"	R-01

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Surface Casing
2107152-01 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Potassium	15900	5000	ug/l	100	BEG0292	07/16/21	07/19/21	EPA 200.8
Sodium	645000	5000	"	"	"	"	"	"

Anions by EPA Method 300.0

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	66.2	12.0	mg/L	200	BEG0294	07/16/21	07/16/21	EPA 300.0	
Sulfate	450	60.0	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/02/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1280	10.0	mg/L	1	BEG0226	07/14/21	07/14/21	SM2540C	I-03

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEG0266 - EPA 5030 Water MS

Blank (BEG0266-BLK1)

Prepared & Analyzed: 07/15/21

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Gasoline Range Hydrocarbons	ND	500	"							
Surrogate: 1,2-Dichloroethane-d4	9.63		"	13.3		72.2	23-173			
Surrogate: Toluene-d8	17.3		"	13.3		129	20-170			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	21-167			

LCS (BEG0266-BS1)

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	26.2	1.0	ug/l	33.3		78.5	70-130			
Toluene	29.4	1.0	"	33.3		88.3	70-130			
Ethylbenzene	30.7	1.0	"	33.3		92.2	70-130			
m,p-Xylene	59.1	2.0	"	66.7		88.7	70-130			
o-Xylene	29.2	1.0	"	33.3		87.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	6.27		"	13.3		47.0	23-173			
Surrogate: Toluene-d8	14.9		"	13.3		112	20-170			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.3	21-167			

LCS Dup (BEG0266-BSD1)

Prepared: 07/15/21 Analyzed: 07/16/21

Benzene	26.1	1.0	ug/l	33.3		78.4	70-130	0.191	20	
Toluene	30.3	1.0	"	33.3		90.8	70-130	2.88	20	
Ethylbenzene	31.6	1.0	"	33.3		94.8	70-130	2.86	20	
m,p-Xylene	60.9	2.0	"	66.7		91.4	70-130	2.98	20	
o-Xylene	30.0	1.0	"	33.3		90.1	70-130	2.77	20	
Surrogate: 1,2-Dichloroethane-d4	7.20		"	13.3		54.0	23-173			
Surrogate: Toluene-d8	14.5		"	13.3		109	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.4	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEG0222 - EPA 3520B

Blank (BEG0222-BLK1)

Prepared: 07/13/21 Analyzed: 07/15/21

C10-C28 (DRO) ND 5.0 mg/L

LCS (BEG0222-BS1)

Prepared: 07/13/21 Analyzed: 07/15/21

C10-C28 (DRO) 48.0 5.0 mg/L 50.0 95.9 70-130

LCS Dup (BEG0222-BS1)

Prepared: 07/13/21 Analyzed: 07/15/21

C10-C28 (DRO) 47.2 5.0 mg/L 50.0 94.3 70-130 1.67 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Total Metals by EPA Method 200.8 - Quality Control
Summit Scientific

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

Batch BEG0292 - EPA 200.8

Blank (BEG0292-BLK1)

Prepared & Analyzed: 07/16/21

Calcium	ND	50.0	ug/l
Magnesium	ND	50.0	"
Potassium	ND	50.0	"
Sodium	ND	50.0	"

LCS (BEG0292-BS1)

Prepared & Analyzed: 07/16/21

Calcium	5630	50.0	ug/l	5000	113	85-115
Magnesium	5390	50.0	"	5000	108	85-115
Potassium	5740	50.0	"	5000	115	85-115
Sodium	5410	50.0	"	5000	108	85-115

Duplicate (BEG0292-DUP1)

Source: 2107160-01

Prepared: 07/16/21 Analyzed: 07/17/21

Calcium	139000	50.0	ug/l	139000	0.00669	20
Magnesium	30600	50.0	"	29800	2.67	20
Potassium	4030	50.0	"	3950	2.07	20
Sodium	201000	50.0	"	198000	1.50	20

Matrix Spike (BEG0292-MS1)

Source: 2107160-01

Prepared: 07/16/21 Analyzed: 07/17/21

Calcium	143000	50.0	ug/l	5000	139000	81.7	70-130
Magnesium	36200	50.0	"	5000	29800	128	70-130
Potassium	10300	50.0	"	5000	3950	127	70-130
Sodium	201000	50.0	"	5000	198000	70.4	70-130

Matrix Spike Dup (BEG0292-MSD1)

Source: 2107160-01

Prepared: 07/16/21 Analyzed: 07/17/21

Calcium	144000	50.0	ug/l	5000	139000	92.8	70-130	0.387	25
Magnesium	35400	50.0	"	5000	29800	112	70-130	2.26	25
Potassium	10100	50.0	"	5000	3950	124	70-130	1.60	25
Sodium	201000	50.0	"	5000	198000	70.5	70-130	0.00203	25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H
Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Anions by EPA Method 300.0 - Quality Control
Summit Scientific

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

Batch BEG0294 - General Preparation

Blank (BEG0294-BLK1)

Prepared & Analyzed: 07/16/21

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

LCS (BEG0294-BS1)

Prepared & Analyzed: 07/16/21

Chloride	3.30	0.0600	mg/L	3.00	110	90-110
Sulfate	15.2	0.300	"	15.0	101	90-110

Duplicate (BEG0294-DUP1)

Source: 2107115-01

Prepared & Analyzed: 07/16/21

Chloride	245	12.0	mg/L	250	1.94	20
Sulfate	2730	60.0	"	2890	5.63	20

Matrix Spike (BEG0294-MS1)

Source: 2107115-01

Prepared & Analyzed: 07/16/21

Chloride	787	12.0	mg/L	600	250	89.5	80-120
Sulfate	5560	60.0	"	3000	2890	89.2	80-120

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H

Project Number: [none]

Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

Total Dissolved Solids by SM2540C - Quality Control

Summit Scientific

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

Batch BEG0226 - General Preparation

Blank (BEG0226-BLK1)

Prepared & Analyzed: 07/14/21

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BEG0226-DUP1)

Source: 2107107-02

Prepared & Analyzed: 07/14/21

Total Dissolved Solids 681 10.0 mg/L 680 0.0588 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: Marcus State 3A-36H

Project Number: [none]
Project Manager: Brent Hedstrom

Reported:
07/26/21 11:42

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.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.
I-03	This sample was recieved and analyzed outside of the recommended holding time.
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