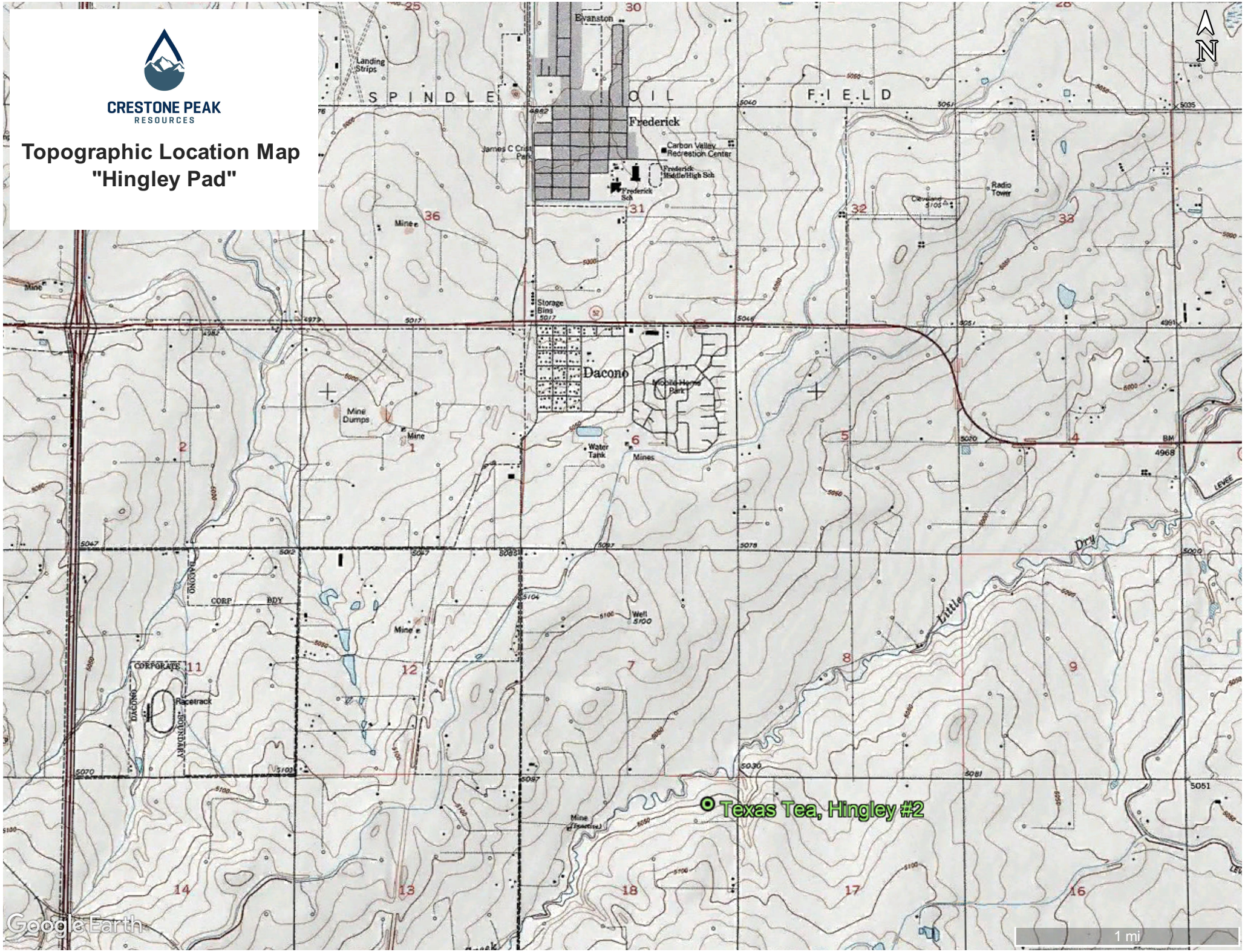
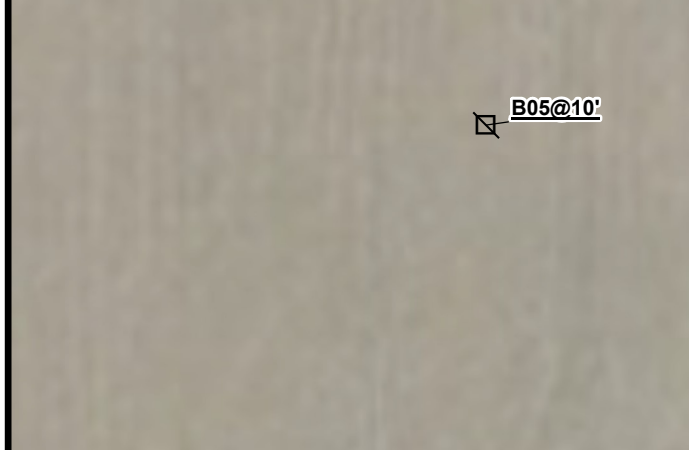
CRESTONE PEAK
RESOURCES

Topographic Location Map
"Hingley Pad"



Crestone Peak Resources
Hingley 18H-A167
COGCC Location ID: 455598
Site Diagram

Legal Description: NENE, Sec 18, T1N R67W
County: Weld
Land Use: Cropland
Topography: 3-5% Slopes
Run-Off Risk: Low
Soil Type: Ulm clay loam
Receiving Waters: Little Dry Creek



CPR Hingley Well - Proposed

Texas Tea Hingley #2 Well - P&A

Installed Borehole (7/2/2019)

FLOW Estimated Groundwater Flow Direction

N

0 12.5 25

1 " = 25 '

Sample ID	Latitude NAD83	Longitude NAD83
B01@10', 12'	40.056563	-104.926249
B02@7', 9'	40.056670	-104.926351
B03@14'	40.056764	-104.926433
B04@13'	40.056914	-104.926285
B05@10'	40.056997	-104.926458
B06@12'	40.057160	-104.926302
B07@9'	40.056715	-104.926170
B08@14'	40.056637	-104.926533
B09@6'	40.056467	-104.926180

SOIL SAMPLE RESULTS

		Organics (mg/kg)				
COGCC Allowable Concentration (Soil) -->		500	0.17	85	100	175
Sample Date	Sample ID	TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	Benzene	Toluene	Ethylbenzene	Xylenes - total
7/2/19	B04@13	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B05@10	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B06@12	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B03@14	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B02@7	480	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B02@9	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B07@9	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B01@10	183.2	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B01@12	111.1	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B08@14	<50	<0.0020	<0.0050	<0.0050	<0.010
7/2/19	B09@6	<50	<0.0020	<0.0050	<0.0050	<0.010

Spatial data collected for this project was acquired using a GPS with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. To accurately reflect field conditions, illustrated data may have been manually corrected in order to fit with the aerial imagery reference points and other collected data points.

M:\Projects\Crestone Peak Resources\Remediation\Hingley_18H-A167\Hingley_18H-A167_dig_20190715.mxd Modified 7/15/2019 by Beau.Bergstrom@apexcos.com NAD 1983 UTM Zone 13N Coordinate System Service Layer Credits: Google Earth

Laboratory Results Summary Table - Soil
Hingley Pad Characterization

			Organics (mg/kg)				
COGCC Allowable Concentration (Soil) -->			500	0.17	85	100	175
Location	Sample Date	Sample ID	TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO)	Benzene	Toluene	Ethylbenzene	Xylenes - total
Hingley 18HZ-A167	7/2/19	B04@13	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B05@10	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B06@12	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B03@14	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B02@7	**480**	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B02@9	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B07@9	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B01@10	**183.2**	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B01@12	**111.1**	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B08@14	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*
Hingley 18HZ-A167	7/2/19	B09@6	*<50*	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*

Apex Companies, LLC
1746 Cole Blvd., Suite 250
Lakewood, CO 80401

Yellow Highlight - TPH Detection
Grey Highlight - Below Detection Limit

mg/kg - milligrams per kilogram

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 10, 2019

Maggie Graham

Crestone Peak Resources

2020 E. Grand Avenue, Suite 515

Laramie, WY 82070

RE: Hingley 18H-A167

Work Order # 1907030

Enclosed are the results of analyses for samples received by Summit Scientific on 07/02/19 14:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager

S2

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B04@13	1907030-01	Soil	07/02/19 09:35	07/02/19 14:40
B05@10	1907030-02	Soil	07/02/19 10:15	07/02/19 14:40
B06@12	1907030-03	Soil	07/02/19 10:42	07/02/19 14:40
B03@14	1907030-04	Soil	07/02/19 11:09	07/02/19 14:40
B02@7	1907030-05	Soil	07/02/19 11:30	07/02/19 14:40
B02@9	1907030-06	Soil	07/02/19 11:33	07/02/19 14:40
B07@9	1907030-07	Soil	07/02/19 11:47	07/02/19 14:40
B01@10	1907030-08	Soil	07/02/19 12:00	07/02/19 14:40
B01@12	1907030-09	Soil	07/02/19 12:03	07/02/19 14:40
B08@14	1907030-10	Soil	07/02/19 12:30	07/02/19 14:40
B09@6	1907030-11	Soil	07/02/19 12:50	07/02/19 14:40

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

1907030.1

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Client: APEX Companies, LLC
Address: 176 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065 Fax:
Sampler Name: Ryan Finley

Project Manager: Maggie Graham 720-501-5065
E-Mail: DenverRemediation@ApexCos.onmicrosoft.com
Project Name: Hingley 18H - A167
Project Number: TBD

				Preservative				Matrix				Analyze For:								
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO_3	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	GRO/BTEX	DRO							Special Instructions
BØ4@13	7/2/19	0935	1			X			X			X	X							Call Maggie Graham with questions
BØ5@10	"	1015	"			"			"			"	"							
BØ6@12		1042																		
BØ3@14		1109																		
BØ2@7		1130																		
BØ2@9		1133																		
BØ7@9		1147																		
BØ1@10		1200																		
BØ1@12		1203																		
BØ8@14	↓	1230	↓			↓			↓			↓	↓							

Relinquished by:	Date/Time:	Received by:	Date/Time:
Ryan Finley	7/2/19 1940	[illegible]	7-2-19 14:48
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:

Turn Around Time (Check)

Same Day		72 Hours	
24 Hours		Standard	X
48 Hours			

Sample Integrity:
Temperature Upon Receipt: 16.1
Intact: Yes X No

Notes
Circle applicable regulatory agency:
COGCC/ CDPHE
Client Name:
Crestone PR

Summit Scientific

1907030.2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Client: APEX Companies, LLC
Address: 176 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065 Fax:
Sampler Name: Ryan Finley

Project Manager: Maggie Graham 720-501-5065
E-Mail: DenverRemediation@ApexCos.onmicrosoft.com
Project Name: Hingley 18H-A167
Project Number: TBD

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Soil	Matrix: Air - Canister Serial #	Matrix: Other (Specify)	Analyze For: GBTEX	Analyze For: DRO	Special Instructions
B@9@6	7/2/19	1250	1			X			X			X	X	Call Maggie Graham with questions

Relinquished by:	Date/Time:	Received by:	Date/Time:
Ryan Finley	7/2/19 1940		7-2-19 14:40
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:

Turn Around Time (Check)
Same Day [ ] 72 Hours [ ]
24 Hours [ ] Standard [X]
48 Hours [ ]

Sample Integrity:
Temperature Upon Receipt: 16.1
Intact: Yes [X] No [ ]

Notes
Circle applicable regulatory agency:
COGCC/ CDPHE
Client Name: Crestone PR

Sample Receipt Checklist

1907030

S2 Work Order_____

Client: Apex/CPR Client Project ID: Hingley 18H-A167

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

[✓] [ ] [ ] [ ] [ ]

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

Temp (°C)	16.1

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.	✓			On Ice
Were all samples received intact (1)?	✓			
Was adequate sample volume provided (1)?	✓			
If custody seals are present, are they intact (1)?				
Are samples with holding times due within 48 hours sample due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely (1)?	✓			
Does the COC agree with the number and type of sample bottles received (1)?	✓			
Do the sample IDs on the bottle labels match the COC (1)?	✓			
Is the COC properly relinquished by the client w/ date and time recorded (1)?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)** (1)? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2(1)? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
(1) **If NO, then contact the client before proceeding with analysis and note in case narrative.**				

MP — **Custodian Printed Name or Initials**

Muri Premer — **Signature of Custodian**

7/2/19 — **Date/Time**

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B04@13

1907030-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*125 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*108 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B05@10

1907030-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*130 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*107 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B06@12

1907030-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B03@14

1907030-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*132 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*115 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B02@7

1907030-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**480**	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*103 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B02@9

1907030-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*131 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*107 %*	*30-150*		"	"	"	"	

S2

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B07@9

1907030-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 11:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 11:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*123 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*21-167*		"	"	"	"	

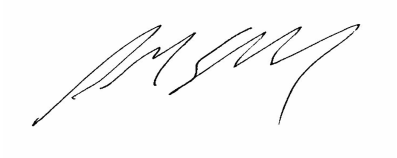
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 11:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 11:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*104 %*	*30-150*		"	"	"	"	



Crestone Peak Resources 2020 E. Grand Avenue, Suite 515 Laramie WY, 82070	Project: Hingley 18H-A167 Project Number: [none] Project Manager: Maggie Graham	**Reported:** 07/10/19 06:27

B01@10

1907030-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**3.2**	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*114 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*122 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**180**	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*104 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B01@12

1907030-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 12:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	**1.1**	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 12:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*128 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 12:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**110**	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 12:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*106 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B08@14

1907030-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*124 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*103 %*	*30-150*		"	"	"	"	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

B09@6

1907030-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1907060	07/03/19	07/05/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*120 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*21-167*		"	"	"	"	

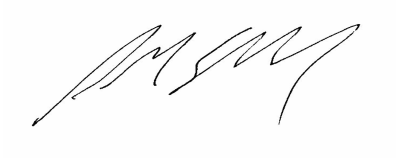
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1907061	07/03/19	07/06/19	EPA 8015M	

Date Sampled: **07/02/19 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*110 %*	*30-150*		"	"	"	"	



Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1907060 - EPA 5030 Soil MS										
Blank (1907060-BLK1)				Prepared: 07/03/19 Analyzed: 07/05/19						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0484*		"	*0.0400*		*121*	*23-173*			
Surrogate: Toluene-d8	*0.0400*		"	*0.0400*		*100*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0409*		"	*0.0400*		*102*	*21-167*			
LCS (1907060-BS1)				Prepared: 07/03/19 Analyzed: 07/05/19						
Benzene	0.0754	0.0020	mg/kg	0.100		75.4	70-130			
Toluene	0.0850	0.0050	"	0.100		85.0	70-130			
Ethylbenzene	0.0720	0.0050	"	0.100		72.0	70-130			
m,p-Xylene	0.143	0.010	"	0.200		71.5	70-130			
o-Xylene	0.0761	0.0050	"	0.100		76.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0466*		"	*0.0400*		*117*	*23-173*			
Surrogate: Toluene-d8	*0.0437*		"	*0.0400*		*109*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0410*		"	*0.0400*		*102*	*21-167*			
Matrix Spike (1907060-MS1)		**Source: 1907030-01**		Prepared: 07/03/19 Analyzed: 07/05/19						
Benzene	0.0762	0.0020	mg/kg	0.100	ND	76.2	70-130			
Toluene	0.0818	0.0050	"	0.100	ND	81.8	70-130			
Ethylbenzene	0.0705	0.0050	"	0.100	ND	70.5	70-130			
m,p-Xylene	0.141	0.010	"	0.200	ND	70.5	70-130			
o-Xylene	0.0745	0.0050	"	0.100	ND	74.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0462*		"	*0.0400*		*116*	*23-173*			
Surrogate: Toluene-d8	*0.0423*		"	*0.0400*		*106*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0403*		"	*0.0400*		*101*	*21-167*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1907060 - EPA 5030 Soil MS										
Matrix Spike Dup (1907060-MSD1)		**Source: 1907030-01**		Prepared: 07/03/19 Analyzed: 07/05/19						
Benzene	0.0761	0.0020	mg/kg	0.100	ND	76.1	70-130	0.118	30	
Toluene	0.0816	0.0050	"	0.100	ND	81.6	70-130	0.220	30	
Ethylbenzene	0.0787	0.0050	"	0.100	ND	78.7	70-130	10.9	30	
m,p-Xylene	0.170	0.010	"	0.200	ND	84.8	70-130	18.5	30	
o-Xylene	0.0744	0.0050	"	0.100	ND	74.4	70-130	0.201	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0494*		*"*	*0.0400*		*124*	*23-173*			
Surrogate: Toluene-d8	*0.0422*		*"*	*0.0400*		*106*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0398*		*"*	*0.0400*		*99.6*	*21-167*			

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1907061 - EPA 3550A										
Blank (1907061-BLK1)				Prepared: 07/03/19 Analyzed: 07/06/19						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (1907061-BS1)				Prepared: 07/03/19 Analyzed: 07/06/19						
C10-C28 (DRO)	511	50	mg/kg	500		102	70-130			
Matrix Spike (1907061-MS1)	**Source: 1907030-01**			Prepared: 07/03/19 Analyzed: 07/06/19						
C10-C28 (DRO)	507	50	mg/kg	500	25.5	96.3	70-130			
Matrix Spike Dup (1907061-MSD1)	**Source: 1907030-01**			Prepared: 07/03/19 Analyzed: 07/06/19						
C10-C28 (DRO)	509	50	mg/kg	500	25.5	96.7	70-130	0.436	20	

Crestone Peak Resources	Project: Hingley 18H-A167	
2020 E. Grand Avenue, Suite 515	Project Number: [none]	**Reported:**
Laramie WY, 82070	Project Manager: Maggie Graham	07/10/19 06:27

Notes and Definitions

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

Attachment B

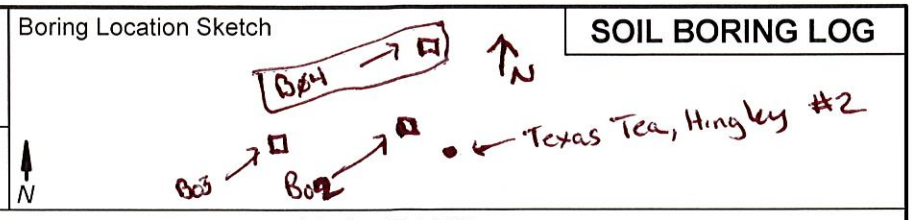
Boring Logs

APEX

SOIL BORING LOG

Project Number	Boring Number	Sheet
125.1902.01-455598	B04	1 of 9

Boring Location Sketch



Project: Crestone Peak Resources Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 Water Level: N/A Start: 0915 Finish: 0931 Logger: R. Finley

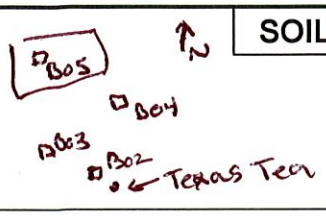
Depth Below Surface	Sample Interval	Sample Depth/Time	Sample Recovery	Standard Penetration Test Results 6"/ 6"/ 6"	Soil Description: USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
0					4hrs Hand Auger Potholing				
5	5	1	5	X	0-6 med brwn silty clay, v.fg-fg, med dense, low plastic, blocky, low moisture. Pockets of barite. No odor/stn	CL	N	6.2	5
10				X	6-14 med grey clay, vfg-fg, very dense, low plastic, blocky + hard. No moisture, black stain @ 13ft. No odor. Barite @ 15	CL	Y	2.2 6.6 11.0	10
15	5	5	5	X	14-17 med brn to grey silty sand, vfg-mg. Dry + blocky grading to dense + hard, no plastic. No odor/stn	SM	N	7.7 6.7	15
20					~~refusal~~ @ 17 ft				20

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
17	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch



Project Number	Boring Number	Sheet
125.1902.01-455598	B05	2 of 9

Project: Crestone Peak Resources | Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 | Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 | Water Level: N/A | Start: 950 | Finish: 1010 | Logger: ~~R. Finley~~ S. Maher

Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results (6"/ 6"/ 6"/ 6")	Soil Description (USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor)	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger potholing				5
					0-8 sandy clay, med brown, med dense, med plastic, blocky, low moisture	SC	N	SM 1.8 3.2	7 8
10					8-12 med grey clay, very dense, low plastic, low moisture, blocky, black stain @ 10 - no odor bavite @ 8	CL	Y	8.5 2.4	10 12
15					12-17 med grey to med brown silty sand. dry + blocky. no plastic. no stain or odor	SM	N	3.7 43	15 17
20					*refusal @ 17				20

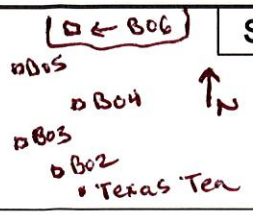
Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
17	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Project Number	Boring Number	Sheet
125.1902.01-455598	B06	3 of 9

Boring Location Sketch



Project: Crestone Peak Resources
Location: Hingley 18H-A167
Drilling Method & Equipment: Direct-push DT6620
Drilling Contractor: DrillPro - Terrance Apodaca
Date: 7/2/2019
Water Level: N/A
Start: 1020
Finish: 1039
Logger: ~~R. Finley~~ S. Maher

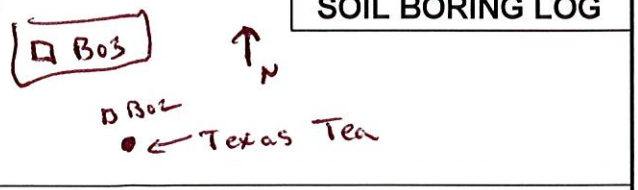
Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results (6"/ 6"/ 6"/ 6")	Soil Description (USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor)	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger potholing				5
					0-8 med brown silty clay med dense, low plasticity blocky, low moisture	SC	N	2.4 1.2	8
10					8-14 med grey-med brown clay. dense, low plastic, blocky, low moisture barite @ 8-9 slight staining @ 12 - no odor	CL	Y	6.7 4.6	10 14
15					14-18 med grey-med brown silty sand, dry + blocky gradient to (SM) dense + hard	SM	N	1.1 0.5	15 18
20					*refusal @ 18'				20

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
18'	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch



Project Number	Boring Number	Sheet
125.1902.01-455598	B03	1 of 1

Project: Crestone Peak Resources | Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 | Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 | Water Level: N/A | Start: 1043 | Finish: 1104 | Logger: ~~R. Finley~~ S. Maher

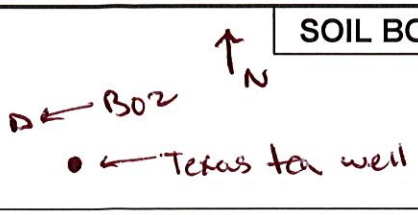
Depth Below Surface	Sample: Interval	Sample: Depth/ Time	Sample: Recovery	Standard Penetration Test Results (6"/ 6"/ 6"/ 6")	Soil Description (USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor)	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger potholing				5
					0-16 grey-med brown clay, dense, low plastic, blocky, low moisture. barite pockets throughout	CL	Y	0.7 1.1 1.8 1.2 4.8	6 10
15					16-18 clayey sand, grey, dense, vfg-fg, low moisture	SC	N	4.4 3.2	15 16 18
20					~~Stained~~ (SH) Staining @ 13'				20
					*refusal @ 18'				

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
18	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch



Project Number	Boring Number	Sheet
125.1902.01-455598	B02	5 of 9

Project: Crestone Peak Resources | Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 | Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 | Water Level: N/A | Start: 1108 | Finish: 1128 | Logger: ~~R. Finley~~ S. Maher

Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results 6"/ 6"/ 6"/ 6"	Soil Description: USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					Hand Auger Pothole to 6ft bgs				5
					6-7 grey sandy clay, vfg, blocky, dense, low moisture	SC	N	20.9	7
10					7-16 grey-med brown clay, blocky, dense, low moisture, pockets of diesel odor + sheen @ 8' cavity @ 12' black minerals @ 10'	CL	Y	4.4 3.4 0.8	10
15					*refusal @ 16'			1.1	15 16
20									20

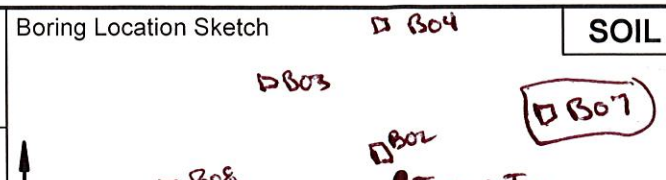
Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
16	2	Highest PID + sample below for vertical clearance	No GW encountered

APEX

SOIL BORING LOG

Project Number	Boring Number	Sheet
125.1902.01-455598	B07	6 of 9

Boring Location Sketch



Project: Crestone Peak Resources
Location: Hingley 18H-A167
Drilling Method & Equipment: Direct-push DT6620
Drilling Contractor: DrillPro - Terrance Apodaca
Date: 7/2/2019 Water Level: N/A Start: 1130 Finish: 1137 Logger: ~~R. Finley~~ S. Maher

Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results (6"/ 6"/ 6"/ 6")	Soil Description: USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger patholing				5
10	C				6-12 grey to med brown clay, dense, blocky, low moisture no notable staining or odor	CL	Y	5.9 9.0 3.1	10 12
15									15
									20

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
12	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch

Project Number	Boring Number	Sheet
125.1902.01-455598	B01	1 of 9

Project: Crestone Peak Resources | Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 | Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 | Water Level: N/A | Start: 1139 | Finish: 1149 | Logger: ~~R. Finley~~ S. Maher

Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results (6"/ 6"/ 6"/ 6")	Soil Description (USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor)	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger potholing				5
10					6-12 grey-med brown clay. blocky, low plastic dense, low moisture	CL	Y	34.3	
								48.3	10
								13.4	
15					interbed of (SM) sandy clay @ 6-7' staining + odor @ 8' barite @ 9'				15
									20

Total Depth(s) = 13

Soil Sample(s): 2

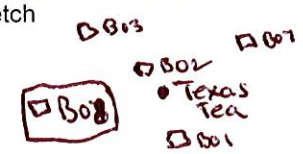
Rationale: Highest PID + Sample below for vertical clearance

Additional Information: No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch



Project Number	Boring Number	Sheet
125.1902.01-455598	B08	8 of 9

Project: Crestone Peak Resources | Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 | Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 | Water Level: N/A | Start: 1205 | Finish: 1218 | Logger: R. Finley

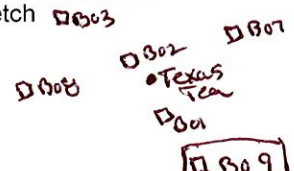
Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results 6"/ 6"/ 6"/ 6"	Soil Description: USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
					Hand auger				
5									
	C				6-15 med grey sandy clay grading less dense + more sand, very dense to med dense, low plastic red mottling throughout barite xstls in pockets Black layer ~ 13-14 bgs No odor/Stn. dry	CL	Y	0.8	6
								4.0	8
10								4.3	10
					15-16 Lt grey crumbly clay sand. vfg-fg. Low dense no plastic very slight red mottling			5.7	12
								5.9	14
15						SC	N	4.3	16
20									
					* refusal @ 16				

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
16	1	Highest PID	No GW encountered

APEX

SOIL BORING LOG

Boring Location Sketch



Project Number	Boring Number	Sheet
125.1902.01-455598	B09	9 of 9

Project: Crestone Peak Resources Location: Hingley 18H-A167

Drilling Method & Equipment: Direct-push DT6620 Drilling Contractor: DrillPro - Terrance Apodaca

Date: 7/2/2019 Water Level: N/A Start: 1237 Finish: 1251 Logger: ~~R. Finley~~ S. Maher

Depth Below Surface	Sample: Interval	Sample: Depth/Time	Sample: Recovery	Standard Penetration Test Results: 6"/ 6"/ 6"/ 6"	Soil Description: USCS Group Symbol, Name, Gradation or Plasticity, Particle Size Distribution, Color, Moisture Content Relative Density or Consistency, Soil Structure, Mineralogy, Stain or Odor	Symbol of USCS Log	Staining	PID Readings (ppm)	PID Reading Depths (bgs)
5					hand auger potholing				5
10					0-12 grey - med brown clay dense, blocky, low moisture odor @ 8'-9'	CL	Y	11.1 1.0 5.4	10
15					12-15 clayey sand. grey, mod. dense, vfg-fg, low moisture, no stain or odor *refusal @ 15	SC	N	4.8 6.5	12 15
20									20

Total Depth(s) =	Soil Sample(s):	Rationale	Additional Information:
15	1	Highest PID	No GW encountered