



MCollier@H-R Enterprises.com 575-909-0326

### **Remediation and Closure Report**

Crescent Hale 12 Federal #001 Incident# nAPP2236074851 Eddy County, New Mexico

### **Prepared For:**

Cimarex Energy Co. of Colorado 600 Marienfeld St. Midland, TX 79701

### **Prepared By:**

H&R Enterprises, LLC 5120 W. Kansas St. Hobbs, New Mexico 88242

### March 10, 2023

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Mrs. Crisha Morgan **Bureau of Land Management** 620 E. Green St. Carlsbad, NM 88240

Mrs. Jennifer Nobui NMOCD 1220 S. St. Francis Dr. Santa Fe, NM 87505

Subject: Remediation and Closure Report Crescent Hale 12 Federal #001 Eddy County, NM

Dear Mrs. Morgan and Mrs. Nobui,

Cimarex Energy Co. of Colorado has contracted H&R Enterprises (H&R) to perform site assessment and remediation services at the above-referenced location. The results of our site assessment and remediation activities are contained herein.

#### **Site Information**

The Crescent Hale 12 Federal #001 is located approximately 17.2 miles South of Loco Hills, New Mexico. The legal location for this release is Unit Letter D, Section 12, Township 19 South and Range 30 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.680717 North and -103.932367 West. Site plans are presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Largo Loam, 1 to 5 percent slopes. The referenced soil data is attached in Appendix II. Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Map, Appendix I).

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#### **Groundwater and Site Characterization**

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 92-feet below ground surface (BGS). See Appendix II for the referenced groundwater data.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

#### Approximate Depth to Groundwater

92 Feet/BGS

Yes	No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
Yes	No	Within 200 feet of any lakebed, sinkhole, or a playa lake
Yes	No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
Yes	No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
Yes	No	Within 1000 feet of any freshwater well or spring
Yes	No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
Yes	No	Within 300 feet of a wetland
Yes	No	Within the area overlying a subsurface mine
Yes	No	Within an unstable area
Yes	No	Within a 100-year floodplain

As this is a remediation in a high Karst area, the closure criteria for this site are as follows:

	Tab	ole I							
Closure Criteria for Soils Impacted by a Release									
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/I TDS	Constituent	Method*	Limit**						
<u>&lt;</u> 50 feet	Chloride **	EPA 300.0 or SM4500 CIB	600 mg/kg						
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg						
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg						
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg						

#### **Incident Description**

On December 26, 2022, it was discovered that the heater treater had popped off and fluid was running down the side of the vessel. Approximately 11 barrels (bbls) of crude oil was released into the lined falcon containment, onto the well pad, and into the pasture behind the location. An estimated 4 bbls of crude oil were recovered.

#### Site Assessment and Remedial Activities

H&R mobilized personnel to begin site assessment, sampling, and remediation activities of the location. Grab samples were obtained from the release area as well as the overspray area. Samples collected were transported to Cardinal Laboratories for analysis, and the results of that analysis are presented in the following data table. Initial site assessment sampling locations are illustrated on Site Assessment Map, Appendix I. Before, during, and after photographs of the location are attached in Appendix IV. Complete laboratory reports can be found in Appendix V.

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Tab	le 1 Closure Crit	. ,	50 mg/kg		iiig/ kg		iiig/ kg	100 mg/kg	
	NMOCD Table 1 Closure Criteria 19.15.29 NMAC			10 mg/kg		100 mg/kg			600 mg/kg
		0-0.5'	527	26.5	3110	9070	1380	13560	80
		1'	217	7.31	2360	5620	835	8815	32
	1/12/2023	2'	4	0.054	40	246	44	330	32
SA-1		3'	1	0.05	35	203	27	265	16
5A-1		3.5'	4	0.155	45	284	39	368	ND
		4'	ND	ND	ND	ND	ND	0	16
	2/7/2023	5'	ND	ND	ND	ND	ND	0	32
		6'	ND	ND	ND	35.4	ND	35.4	16
		0-0.5'	134	7.37	1030	1770	234	3034	16
		1'	3	0.102	58	295	52.1	405.1	ND
	1/12/2023	2'	0	0.05	ND	39	ND	39	ND
		3'	2	0.05	16	133	22.8	171.8	64
SA-2		4'	1	ND	34.7	ND	ND	34.7	864
5A-2	1/17/2023	5'	ND	ND	ND	ND	ND	0	1170
	1/1//2025	6'	ND	ND	ND	ND	ND	0	1180
		8'	ND	ND	ND	ND	ND	0	1230
	2/7/2023	10'	ND	ND	ND	ND	ND	0	928
		12'	ND	ND	ND	ND	ND	0	192
SA-3	1/17/2023	0'	ND	ND	ND	238	86.6	324.6	32
3A-3	1/1//2023	1'	ND	ND	ND	ND	ND	0	80
SA-4	1/17/2023	0'	ND	ND	ND	1440	375	1815	64
5A-4	1/1//2025	1'	ND	ND	ND	ND	ND	0	432
SA-5	1/17/2023	0-0.5'R	817	96.4	5910	11600	1850	19360	240
SA-6	1/17/2023	0-0.5'R	1160	79.1	9780	26500	4360	40640	208
H-1	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	80
H-2	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	32
H-3	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	48
H-4	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	16
H-5	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	32
H-6	1/17/2023	0-1'	ND	ND	ND	ND	ND	0	192
		ND = .	Analyte Not De	etected SA = A	uger Sample H	= Horizontal Sa	ample	1	

#### Table 1: Initial Soil Samples Analysis

Based on the results of our site assessment and upon client authorization, excavation activities of the impacted areas began. Confirmation composite samples were collected from the bottom and sidewalls of the excavation to confirm that NMOCD closure criteria had been met, the results of which can be found in the following data table. Confirmation sample locations and excavation dimensions can be found on Confirmation Sample Map in Appendix I. Complete laboratory reports are attached in Appendix V.

		-				1 7			
Sample ID	Sample Date	Depth	BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl
		(BGS)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NMOCD Tabl	le 1 Closure Crit NMAC	teria 19.15.29	50 mg/kg	10 mg/kg		100 mg/kg		100 mg/kg	600 mg/kg
S-1	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	160
S-2	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	64
S-3	2/8/2023	0.5"	ND	ND	ND	ND	ND	0	80
S-4	2/7/2023	0.5"	ND	ND	ND	10.7	ND	10.7	128
S-5	2/7/2023	2'	ND	ND	ND	ND	ND	0	192
S-6	2/7/2023	2'	ND	ND	ND	ND	ND	0	16
S-7	2/7/2023	2'	ND	ND	ND	ND	ND	0	112
S-8	2/7/2023	2'	ND	ND	ND	ND	ND	0	176
S-9	2/8/2023	3'	ND	ND	ND	ND	ND	0	80
S-10	2/7/2023	3'	ND	ND	ND	ND	ND	0	272
S-11	2/7/2023	3'	ND	ND	ND	ND	ND	0	176
S-12	2/7/2023	3'	ND	ND	ND	ND	ND	0	80
S-13	2/8/2023	3'	ND	ND	ND	ND	ND	0	80
S-14	2/7/2023	3'	ND	ND	ND	ND	ND	0	272
S-15	2/7/2023	3'	ND	ND	ND	ND	ND	0	336
S-16	2/7/2023	3'	ND	ND	ND	ND	ND	0	272
S-17	2/7/2023	3'	ND	ND	ND	ND	ND	0	288
S-18	2/8/2023	3'	ND	ND	ND	ND	ND	0	80
S-19	2/7/2023	3'	ND	ND	ND	ND	ND	0	288
S-20	2/7/2023	3'	ND	ND	ND	ND	ND	0	256
6 21	2/7/2023	2'	ND	ND	ND	179	29.3	208.3	176
S-21	2/13/2023	2.5'	ND	ND	ND	ND	ND	0	96
6 22	2/7/2023	2'	ND	ND	ND	169	30.3	199.3	176
S-22	2/13/2023	2.5'	ND	ND	ND	ND	ND	0	96
S-23	2/7/2023	2'	ND	ND	ND	16.7	ND	16.7	112
S-24	2/7/2023	2'	ND	ND	ND	15.5	ND	15.5	112
S-26	2/8/2023	4'	ND	ND	ND	ND	ND	0	368
SW-1	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	80
SW-2	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	48
SW-3	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	160
SW-4	2/7/2023	0.5'	ND	ND	ND	ND	ND	0	144
SW-5	2/7/2023	2'	ND	ND	ND	ND	ND	0	176
SW-6	2/7/2023	2'	ND	ND	ND	ND	ND	0	160
SW-7	2/7/2023	2'	ND	ND	ND	ND	ND	0	160
SW-8	2/7/2023	2'	ND	ND	ND	ND	ND	0	176
SW-9	2/7/2023	2'	ND	ND	ND	ND	ND	0	48
SW-10	2/7/2023	2'	ND	ND	ND	ND	ND	0	176
			ND = A	nalyte Not Det	ected SW = Sic	lewall			

#### Table 2: Confirmation Soil Sample Analysis

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		Та	ble 2: Cor	nfirmatior	n Soil Sam	ple Analy	sis		
Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC		50 mg/kg	10 mg/kg		100 mg/kg		100 mg/kg	600 mg/kg	
SW-11	2/7/2023	3'	ND	ND	ND	ND	ND	0	288
SW-12	2/8/2023	3'	ND	ND	ND	ND	ND	0	80
SW-13	2/7/2023	3'	ND	ND	ND	ND	ND	0	144
SW-14	2/7/2023	3'	ND	ND	ND	ND	ND	0	48
SW-15	2/7/2023	2'	ND	ND	ND	ND	ND	0	160
SW-16	2/7/2023	2'	ND	ND	ND	ND	ND	0	160
SW-17	2/7/2023	2'	ND	ND	ND	13.9	ND	13.9	112
SW-18	2/7/2023	2'	ND	ND	ND	18.3	ND	18.3	144
SW-19	2/7/2023	2'	ND	ND	ND	12.5	ND	12.5	160
SW-20	2/7/2023	2-4'	ND	ND	ND	21.6	ND	21.6	160
CIN 24	2/7/2023	4'	ND	ND	ND	152	22.3	174.3	320
SW-21	2/13/2023	4.5'	ND	ND	ND	ND	ND	0	64
SW-22	2/7/2023	2-4'	ND	ND	ND	16.7	ND	16.7	160
TW-1	2/7/2023	2-4'	ND	ND	ND	14.8	ND	14.8	80
BG-1	2/7/2023	0-1'	ND	ND	ND	ND	ND	0	32
BG-2	2/7/2023	0-1'	ND	ND	ND	ND	ND	0	32
BG-3	2/7/2023	0-1'	ND	ND	ND	ND	ND	0	16
BG-4	2/7/2023	0-1'	ND	ND	ND	ND	ND	0	80
BG-6	2/8/2023	0-1'	ND	ND	ND	ND	ND	0	16
		NE	) = Analyte Not	Detected SW	= Sidewall TW	= Transition W	all		

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#### **Remedial Actions**

- The impacted areas near sample points S-1 through S-4 were excavated to a total depth of 0.5-feet BGS.
- The impacted areas near sample points S-5 through S-8 were excavated to a depth of 2-feet BGS.
- The impacted areas near sample points S-9 through S-20 were excavated to a depth of 3-feet BGS.
- The impacted areas near sample points S-21 and S-22 were excavated to a depth of 2.5-feet BGS.
- The impacted area near sample points S-26 was excavated to a depth of 4-feet BGS.
- Composite confirmation samples were obtained from the sidewalls and bottoms of the excavation to verify that all contaminants above closure criteria had been removed.
- All the excavated material was hauled to Lea Land, a NMOCD approved solid waste disposal facility.
- The excavated areas on the well pad were backfilled with new caliche at depth and brought to grade, machine compacted and contoured to match the surrounding location.
- The excavated areas in the pasture were backfilled with clean like topsoil and contoured to match the surrounding terrain. Seeding with the proper BLM seed mixture will take place in accordance with the monsoon season to ensure proper seed germination and vegetation growth.
- The Final C-141 formally documenting the remedial actions is attached in Appendix III.

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#### Closure

Based on the site assessment, remedial actions and confirmation sampling results completed for this project, on behalf of Cimarex Energy Co. of Colorado we request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

H&R Enterprises, LLC

Mulh

Michael Collier Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone Map
Appendix III Initial and Final C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

## **APPENDIX I**

## **SITE MAPS**

## **KARST MAP**

## **TOPOGRAPHIC MAP**

## LOCATOR MAP

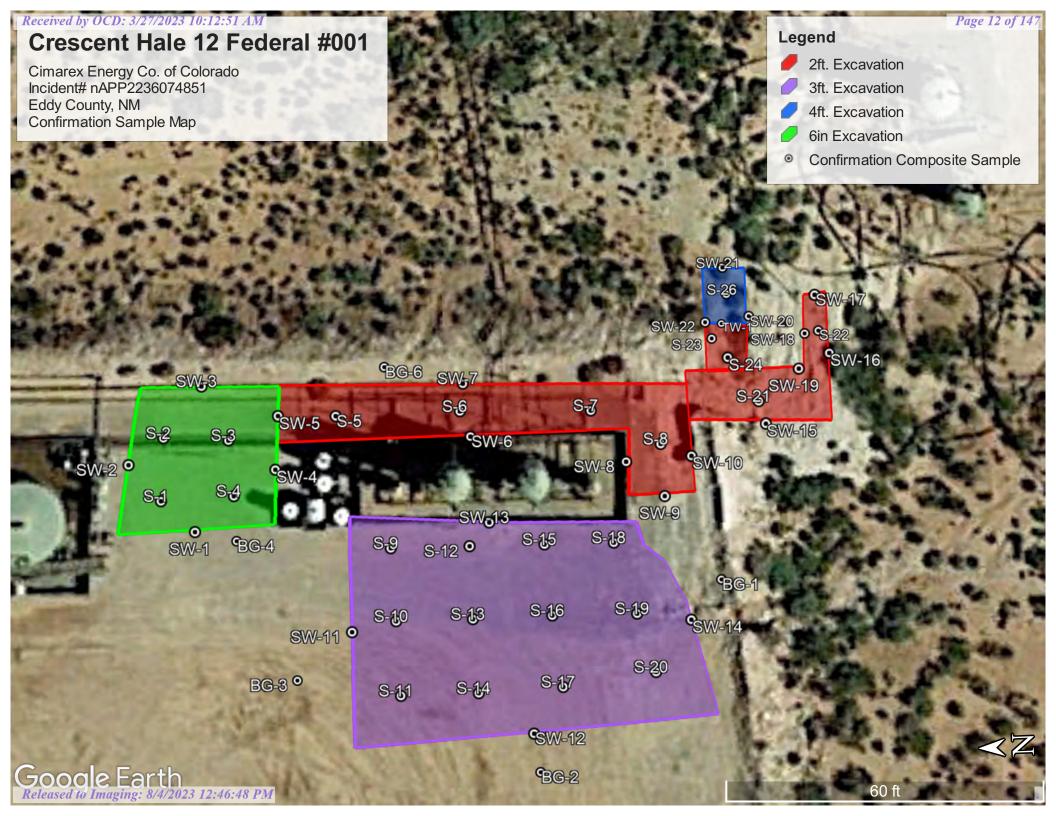
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## Received by OCD: 3/27/2023 10:12:51 AM Page 11 of 147 **Crescent Hale 12 Federal #001** Legend ۲ Assessment/Delineation Sample Cimarex Energy Co. of Colorado Incident# nAPP2236074851 Crescent Hale 12 Federal #001 Eddy County, NM **Overspray Area** Site Assessment Maplale 12 Federal #001 Spill Path 161 SA-6 SA55 SA-2-SA31 SA-4 9H-6 SA53

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### Received by OCD: 3/27/2023 10:12:51 AM Crescent Hale 12 Federal #001

Cimarex Energy Co. of Colorado Incident# nAPP2236074851 Eddy County, NM Karst Map

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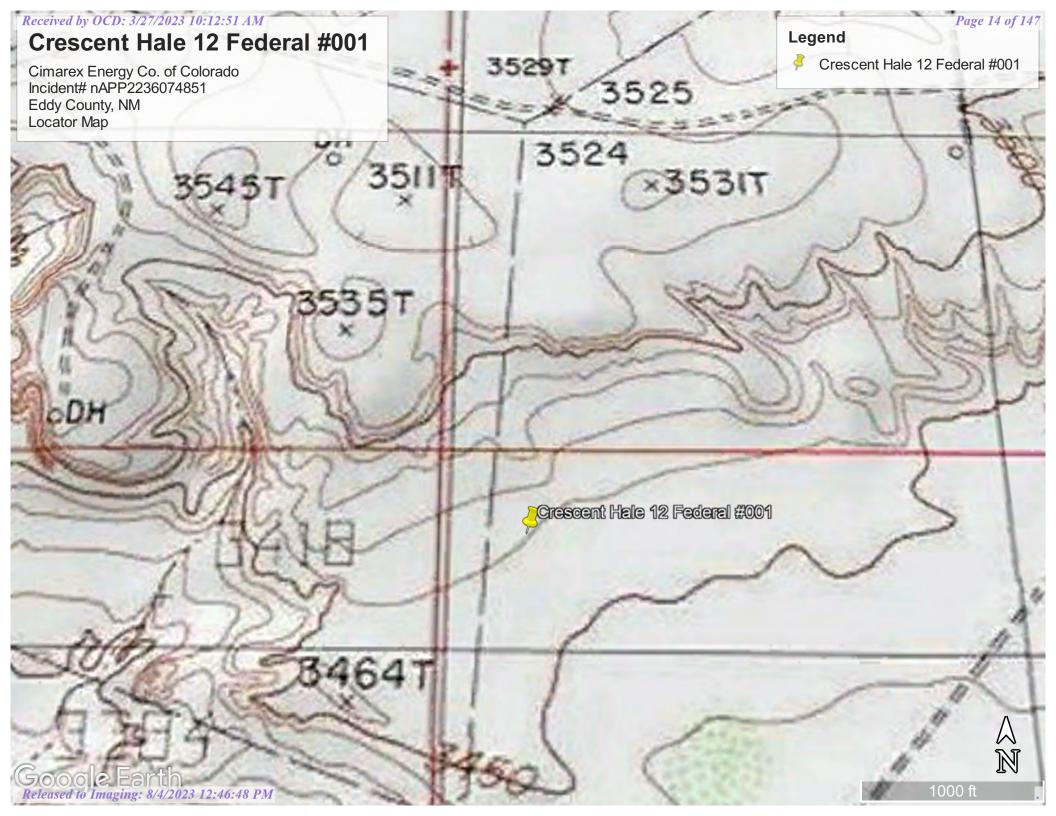


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Crescent Hale 12 Federal #001



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## Received by OCD: 3/27/2023 10:12:51 AM Page 15 of 147 **Crescent Hale 12 Federal #001** Legend Crescent Hale 12 Federal #001 Cimarex Energy Co. of Colorado Incident# nAPP2236074851 Eddy County, NM 82 Locator Map Maljamar ÷. 82 Loco Hills 82 529 529 360 360 Crescent Hale 12 Federal #001 Google Earth N 10 mi Released to Imaging: 8/4/2023 12:46:48 PM

## **APPENDIX II**

## **GROUNDWATER DATA**

## **SOIL SURVEY**

## FEMA FLOOD ZONE

?	W	/at							-	the State <b>ge De</b>	-		ter	
A CLW##### in the POD suffix indicates he POD has been eplaced & no longer serves a water right file.)	(R=POD replaced, O=orphar C=the file closed)	ned,	1					7 2=NE est to lar	3=SW 4=SH rgest) (1	E) NAD83 UTM in m	neters)	(In fo	eet)	
		POD		~	~ ~									
POD Number	Code	Sub- basin	County		Q (		Twe	Rng	X	Y	DistanceDep	thWellDent		Vater
<u>CP 00647 POD1</u>	0	CP	ED		2 2	-	19S	30E	598235	3614621*	2569	200	92	10
<u>CP 00767 POD1</u>		СР	ED		3 2	2 35	18S	30E	599300	3619158*	2874	500		
										Avera	ge Depth to Wate	er:	92 fe	et
											Minimum Dep	oth:	92 fe	et
											Maximum Dep	oth:	92 fe	et
Record Count: 2														
<b>Basin/County Sear</b>	<u>ch:</u>													
County: Eddy														
UTMNAD83 Radi	us Search (ir	1 meters	<u>.):</u>											
<b>Easting (X):</b> 600	0093.88		North	ning	( <b>Y</b> ):	3616	5395.64	Ļ		<b>Radius:</b> 3000				
*UTM location was deriv	ed from PLS	S - see H	eln											

2/21/23 10:01 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

### Eddy Area, New Mexico

#### LA—Largo loam, 1 to 5 percent slopes

#### Map Unit Setting

National map unit symbol: 1w4y Elevation: 2,000 to 5,700 feet Mean annual precipitation: 6 to 14 inches Mean annual air temperature: 57 to 70 degrees F Frost-free period: 180 to 260 days Farmland classification: Not prime farmland

#### Map Unit Composition

Largo and similar soils: 98 percent Minor components: 2 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Largo**

#### Setting

Landform: Plains, alluvial fans Landform position (three-dimensional): Talf, rise Down-slope shape: Convex, linear Across-slope shape: Linear Parent material: Calcareous alluvium

#### **Typical profile**

*H1 - 0 to 4 inches:* loam *H2 - 4 to 47 inches:* silt loam *H3 - 47 to 65 inches:* loam

#### **Properties and qualities**

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: High (about 10.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B *Ecological site:* R070BC007NM - Loamy *Hydric soil rating:* No

#### **Minor Components**

#### Largo

*Percent of map unit:* 1 percent *Ecological site:* R070BC017NM - Bottomland *Hydric soil rating:* No

#### Pajarito

*Percent of map unit:* 1 percent *Ecological site:* R070BD003NM - Loamy Sand *Hydric soil rating:* No

### **Data Source Information**

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 18, Sep 8, 2022

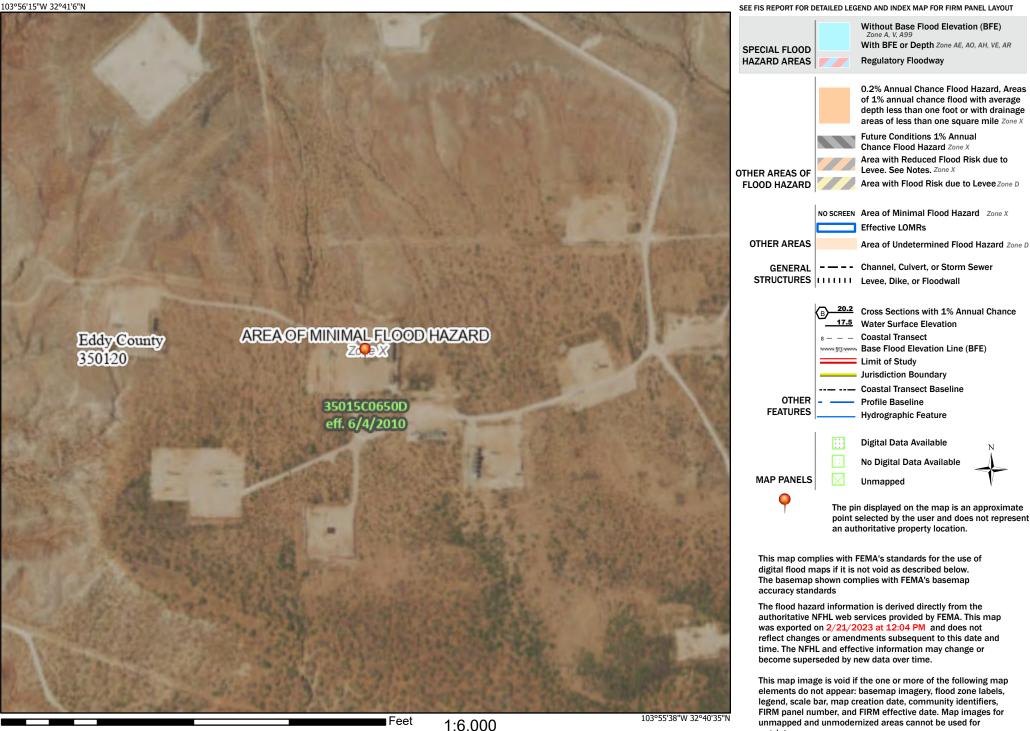


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### Legend

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Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

regulatory purposes.



# INTIAL C-141 AND FINAL C-141

**Released to Imaging: 8/4/2023 12:46:48 PM** 

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural **Resources Department** 

**Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised August 24, 2018

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Submit to appropriate OCD District office

Incident ID	nAPP2236074851
District RP	
Facility ID	fAPP2202535941
Application ID	

## **Release Notification**

#### **Responsible Party**

Responsible Party: Cimarex Energy Co. of Colorado	OGRID: 162683
Contact Name: Laci Luig	Contact Telephone: (432) 571-7800
Contact email: laci.luig@coterra.com	Incident # (assigned by OCD) nAPP2236074851
Contact mailing address: 600 N Marienfeld Street, Ste. 600 Midland, TX 79701	

#### **Location of Release Source**

Latitude 32.68068

Longitude -103.93192 (NAD 83 in decimal degrees to 5 decimal places)

Site Name: Crescent Hale 12 Federal 1	Site Type: Battery
Date Release Discovered: 12/26/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
D	12	198	30E	Eddy

Surface Owner: State Federal Tribal Private (Name:

#### Nature and Volume of Release

🔀 Crude Oil	Volume Released (bbls) 11	Volume Recovered (bbls) 4
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Equipment Failure

When the Lease Operator arrived on location, he found the heater treater had popped off and fluid running down the side of the vessel. The instrument air compressor was running continuously and the quick release on the bottom of the air compressor tank stuck open. The separator appears to have lost enough air supply, causing the back pressure valves to open and sending pressure to hit the heater pop off and blowing until it reset. An estimated total of 11 barrels fluid was released inside containment and onto the well pad. A vacuum truck recovered 7 barrels from the containment. The containment will be washed and a liner inspection scheduled. Impacted soils will be remediated.

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by	
19.15.29.7(A) NMAC?	
🗌 Yes 🖾 No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
By: Laci Luig	
To: OCD Enviro, BLM	
By: Email	

#### **Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 $\square$  The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Laci Luig	Title: ESH Specialist
Signature: A C C C C C C C C C C C C C C C C C C	_ Date: 12/26/2022 Telephone: (432) 208-3035
OCD Only Received by: Jocelyn Harimon	Date:03/27/2023

**Received by OCD: 3/27/2023 10:12:51 AM** Form C-141 State of New Mexico

Oil Conservation Division

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Incident ID	nAPP2236074851
District RP	
Facility ID	fAPP2202535941
Application ID	

### Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>92</u> (ft bgs)	
Did this release impact groundwater or surface water?		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No	
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	🛛 Yes 🗌 No	
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No	
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 🔀 No	

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

#### Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data

Page 3

- Data table of soil contaminant concentration data
- $\square$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

<b>Received by OCD: 3/27/2023</b> Form C-141 Page 4	10:12:51 AM State of New Mexico Oil Conservation Division		Incident ID District RP	Page 25 of 14 nAPP2236074851
			Facility ID Application ID	fAPP2202535941
regulations all operators are required public health or the environment failed to adequately investigate	tion given above is true and complete to the aired to report and/or file certain release not t. The acceptance of a C-141 report by the and remediate contamination that pose a thr C-141 report does not relieve the operator of	tifications and perform co OCD does not relieve the eat to groundwater, surfa	prrective actions for rele operator of liability sh- ce water, human health iance with any other fe	eases which may endanger ould their operations have or the environment. In
email: laci.luig@coterra.com		Telephone: (432) 208-	-3035	
OCD Only Received by: Jocelyn	Harimon	Date: 03/2	27/2023	

Received by OCD: 3/27/2023 10:12:51 AM Form C-141 State of New Mexico

Page 6

Oil Conservation Division

Incident ID	nAPP2236074851
District RP	
Facility ID	fAPP2202535941
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following in	tems must be included in the closure report.	
A scaled site and sampling diagram as described in 19.15.29.11 NMAC		
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office	
Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)	
Description of remediation activities		
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for tions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in	
Printed Name: Laci Luig	Title: ESH Specialist	
Signature:	Date: 3/27/2023	
email: laci.luig@coterra.com	Telephone: (432) 208-3035	
OCD Only		
Received by: Jocelyn Harimon	Date: 03/27/2023	
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.		
Closure Approved by: Ashley Majwell	Date: 8/4/2023	
Closure Approved by: Ashley Maxwell Printed Name: Ashley Maxwell	Title:	

From:	Laci Luig
To:	Michael Collier
Subject:	FW: [EXTERNAL] nAPP2236074851 Crescent Hale 12 Federal 1 sample notification
Date:	Tuesday, February 7, 2023 11:04:34 AM

#### FYI...for closure report.

Thank you!

Laci Luig (432) 208-3035

From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Sent: Tuesday, February 7, 2023 11:54 AM
To: Laci Luig <Laci.Luig@coterra.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD
<Robert.Hamlet@emnrd.nm.gov>
Subject: RE: [EXTERNAL] nAPP2236074851 Crescent Hale 12 Federal 1 sample notification

Laci,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JΗ

Jocelyn Harimon • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1220 South St. Francis Drive | Santa Fe, NM 87505 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov http:// www.emnrd.nm.gov



From: Laci Luig <Laci.Luig@coterra.com>
Sent: Tuesday, February 7, 2023 10:44 AM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] nAPP2236074851 Crescent Hale 12 Federal 1 sample notification

Jocelyn,

I apologize, I listed the wrong sample date in the original email notification. The correct sample date should be February 7, 2023.

Laci Luig (432) 208-3035

From: Enviro, OCD, EMNRD <<u>OCD.Enviro@emnrd.nm.gov</u>>
Sent: Friday, February 3, 2023 3:06 PM
To: Laci Luig <<u>Laci.Luig@coterra.com</u>>
Cc: Hamlet, Robert, EMNRD <<u>Robert.Hamlet@emnrd.nm.gov</u>>; Bratcher, Michael, EMNRD
<<u>mike.bratcher@emnrd.nm.gov</u>>
Subject: RE: [EXTERNAL] nAPP2236074851 Crescent Hale 12 Federal 1 sample notification

**WARNING:** This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.

Laci,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JΗ

Jocelyn Harimon • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1220 South St. Francis Drive | Santa Fe, NM 87505 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov http:// www.emnrd.nm.gov



From: Laci Luig <Laci.Luig@coterra.com>
Sent: Friday, February 3, 2023 8:15 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; BLM Spill Notifications
<blm\_nm\_cfo\_spill@blm.gov>
Cc: Jim Hawley <JHawley@H-R-Enterprises.com>; Michael Collier <mcollier@h-r-enterprises.com>
Subject: [EXTERNAL] nAPP2236074851 Crescent Hale 12 Federal 1 sample notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on

links or opening attachments.

Good morning,

This email serves as notification for confirmation sampling on the Crescent Hale 12 Federal 1. Sampling is scheduled to begin as early as Tuesday, February 14<sup>th</sup>. H&R Enterprises will be onsite to collect the confirmation samples.

Thank you,



Laci Luig | Environmental, Health & Safety Specialist T: 432.571.7810 | M: 432.208.3035 | <u>laci.luig@coterra.com</u> | <u>www.coterra.com</u> Coterra Energy Inc. | 600 N. Marienfeld Street, Suite 600 | Midland, TX 79701

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

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This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.

This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.



# PHOTOGRAPHIC DOCUMENTATION

**Released to Imaging: 8/4/2023 12:46:48 PM** 

#### **PHOTOGRAPHIC DOCUMENTATION**

#### **INITIAL PHOTOGRAPHS**









#### PHOTOGRAPHIC DOCUMENTATION

#### **EXCAVATION PHOTOGRAPHS**









#### MICROBLAZE PHOTOGRAPHS







#### **PHOTOGRAPHIC DOCUMENTATION**

### **FINAL PHOTOGRAPHS**













#### PHOTOGRAPHIC DOCUMENTATION

#### **FINAL PHOTOGRAPHS**



.



# LABORATORY REPORTS

**Released to Imaging: 8/4/2023 12:46:48 PM** 



January 16, 2023

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST SUITE 415 MIDLAND, TX 79701

RE: CRESCENT HALE 12 FED 1H

Enclosed are the results of analyses for samples received by the laboratory on 01/12/23 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 1 ( 0-6" ) (H230172-01)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	26.5	2.00	01/13/2023	ND	1.97	98.7	2.00	11.3	QM-07
Toluene*	212	2.00	01/13/2023	ND	2.07	104	2.00	5.09	QM-07
Ethylbenzene*	95.0	2.00	01/13/2023	ND	2.10	105	2.00	7.66	QM-07
Total Xylenes*	193	6.00	01/13/2023	ND	6.52	109	6.00	10.3	QM-07
Total BTEX	527	12.0	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	128	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	3110	50.0	01/12/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	9070	50.0	01/12/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	1380	50.0	01/12/2023	ND					
Surrogate: 1-Chlorooctane	353	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	264	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 1 ( 1' ) (H230172-02)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.31	1.00	01/13/2023	ND	1.97	98.7	2.00	11.3	
Toluene*	79.0	1.00	01/13/2023	ND	2.07	104	2.00	5.09	
Ethylbenzene*	42.1	1.00	01/13/2023	ND	2.10	105	2.00	7.66	
Total Xylenes*	88.5	3.00	01/13/2023	ND	6.52	109	6.00	10.3	
Total BTEX	217	6.00	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	128	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2360	50.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	5620	50.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	835	50.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	329	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	244	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 1 ( 2' ) (H230172-03)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.054	0.050	01/13/2023	ND	1.97	98.7	2.00	11.3	
Toluene*	0.754	0.050	01/13/2023	ND	2.07	104	2.00	5.09	
Ethylbenzene*	0.798	0.050	01/13/2023	ND	2.10	105	2.00	7.66	
Total Xylenes*	1.96	0.150	01/13/2023	ND	6.52	109	6.00	10.3	
Total BTEX	3.57	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	129	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	40.4	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	246	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	44.4	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	97.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	127	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 1 ( 3' ) (H230172-04)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2023	ND	1.97	98.7	2.00	11.3	
Toluene*	0.294	0.050	01/13/2023	ND	2.07	104	2.00	5.09	
Ethylbenzene*	0.282	0.050	01/13/2023	ND	2.10	105	2.00	7.66	
Total Xylenes*	0.672	0.150	01/13/2023	ND	6.52	109	6.00	10.3	
Total BTEX	1.25	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	123 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	35.0	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	203	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	27.3	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	85.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 1 ( 3.5' ) (H230172-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.155	0.050	01/13/2023	ND	1.97	98.7	2.00	11.3	
Toluene*	1.10	0.050	01/13/2023	ND	2.07	104	2.00	5.09	
Ethylbenzene*	0.798	0.050	01/13/2023	ND	2.10	105	2.00	7.66	
Total Xylenes*	1.85	0.150	01/13/2023	ND	6.52	109	6.00	10.3	
Total BTEX	3.90	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	128 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	45.2	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	284	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	39.2	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	95.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	122 9	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 2 ( 0-6" ) (H230172-06)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.37	0.500	01/13/2023	ND	1.97	98.7	2.00	11.3	
Toluene*	56.4	0.500	01/13/2023	ND	2.07	104	2.00	5.09	
Ethylbenzene*	23.7	0.500	01/13/2023	ND	2.10	105	2.00	7.66	
Total Xylenes*	46.7	1.50	01/13/2023	ND	6.52	109	6.00	10.3	
Total BTEX	134	3.00	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	126	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1030	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	1770	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	234	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	139	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.7	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

#### Sample ID: SA - 2 ( 1' ) (H230172-07)

BTEX 8021B	mg	/kg	Analyze	d By: JH					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.102	0.050	01/13/2023	ND	1.90	95.1	2.00	6.75	
Toluene*	0.816	0.050	01/13/2023	ND	2.11	105	2.00	0.954	QM-07
Ethylbenzene*	0.635	0.050	01/13/2023	ND	2.11	105	2.00	3.89	QM-07
Total Xylenes*	1.52	0.150	01/13/2023	ND	6.46	108	6.00	5.15	QM-07
Total BTEX	3.07	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	135	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	58.4	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	295	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	52.1	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	92.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	120	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 2 ( 2' ) (H230172-08)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2023	ND	1.90	95.1	2.00	6.75	
Toluene*	0.128	0.050	01/13/2023	ND	2.11	105	2.00	0.954	
Ethylbenzene*	0.062	0.050	01/13/2023	ND	2.11	105	2.00	3.89	
Total Xylenes*	<0.150	0.150	01/13/2023	ND	6.46	108	6.00	5.15	
Total BTEX	<0.300	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	125 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	38.6	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	103 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	118 9	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

# Sample ID: SA - 2 ( 3' ) (H230172-09)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2023	ND	1.90	95.1	2.00	6.75	
Toluene*	0.389	0.050	01/13/2023	ND	2.11	105	2.00	0.954	
Ethylbenzene*	0.358	0.050	01/13/2023	ND	2.11	105	2.00	3.89	
Total Xylenes*	0.908	0.150	01/13/2023	ND	6.46	108	6.00	5.15	
Total BTEX	1.66	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	132	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	16.3	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	133	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	22.8	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	98.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	119	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	01/12/2023	Sampling Date:	01/12/2023
Reported:	01/16/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX- EDDY CO NM		

#### Sample ID: SA - 2 ( 4' ) (H230172-10)

BTEX 8021B	mg	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.102	0.050	01/13/2023	ND	1.90	95.1	2.00	6.75	
Toluene*	0.351	0.050	01/13/2023	ND	2.11	105	2.00	0.954	
Ethylbenzene*	0.109	0.050	01/13/2023	ND	2.11	105	2.00	3.89	
Total Xylenes*	0.222	0.150	01/13/2023	ND	6.46	108	6.00	5.15	
Total BTEX	0.784	0.300	01/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	126	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	01/13/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/13/2023	ND	195	97.6	200	0.623	
DRO >C10-C28*	34.7	10.0	01/13/2023	ND	181	90.4	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	01/13/2023	ND					
Surrogate: 1-Chlorooctane	95.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



# **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Contered Temperature     S.	Bill to: (if different)     Laci Luig	Bill to: (if different)     Laci Luig       es     Company Name:     Cimarex Energy       Address:     Address:     600 N Marienfield St, Suite 600       Value     Turn Around     Email:       IT     Tat starts the day received by the lab, if received by 4:30pm     Midland, TX 79701       No     Thermometer ID:     Ves       NA     Correction Factor:     S. & c       Parameters     S. & c     MR       Dub Date:     Ves       NA     Temperature Reading:     S. & c       Parameters     S. & c     MR       It for ide 4500     Midland, thielke@coterra.com	Bill to: (r different)     Laci Luig       es     Company Name:     Cimarex Energy      415     Address:     600 N Marienfield St, Suite 600      415     Email: laci.luig@coterra.com & ashton.thielke@coterra.com       20, NM     Due Date:     Imark: I received by the lab. if received by the lab. if received by 4:30pm       1     TAT starts the day received by the lab. if received by 4:30pm     Pres.       Address:     Yes     NO       Correction Factor:     - 0.1 (2.2)       Abbit M (GRO + DRO + MRO)     Factor:       Due received Temperature     S. 8 (2)       Parameters     BTEX 8021B       Ph 8015M (GRO + DRO + MRO)     Imark	Bill to: (r attreent)     Laci Luig       es     Company Name:     Cimarex Energy      415     Address:     600 N Marienfield St, Suite 600      415     Email:     iaci.luig@coterra.com & ashton.thielke@coterra.com       /415     Turn Around     Franit:       /415     Turn Around     Franit:       /415     Turn Around     Shton.thielke@coterra.com       /415     Turn Around     Franit:       /415     Turn Around     Franit:       /415     Turn Around     Franit:       /415     Turn Around     Franit:       /415     Turn Around     Franitike@coterra.com       /	es     Bill to: (r atterent)     Laci Luig      415     Company Name:     Cimarex Energy      415     Address:     600 N Marienfield St, Suite 600      415     Energy     600 N Marienfield St, Suite 600      415     Fend IH     Turn Around     Midland, TX 79701        Fend IH     Turn Around     Press.        Routine     Rush     Press.        Due Date:     Press.     ANALYSIS REQ        Thermometer ID:	es         Bill to: (rf.dfreeny)         Laci Luig           v.415         Company Name:         Cimarex Energy           v.415         Address:         600 N Marienfield St, Suite 600           v.415         Laci Luig         Cimarex Energy           v.415         Address:         600 N Marienfield St, Suite 600           v.415         Email         laci Luig@coterra.com & ashton.thielke@coterra.com           v.415         Turn Around         Mdland, TX 79701           v.415         Ves (No         Parameters           v.1         TAT starts the day received by the lab, if received by 4:30pm         Codes           v.0         Thermometer ID:         Ves (No)           Noo         Thermoerature:         S. S. S. S.           Value         Soti         Vas (GR0 + DR0 + MR0)           Vas (GR0 + DR0 + DR0 + MR0)         FPH 80155M (GR0 + DR0 + MR0)           Value         Soti         Water           Vas (Grab)         Time         Soti           Vas (Grab)         Time         Soti	Bill to: (r driftwart)         Laci Luig         Work Order C           es         Company Name:         Cimarex Energy         Program: UST/PST []PRP []snown           .415         Address:         600 N Maisminield St, Suile 600         Program: UST/PST []PRP []snown           .415         Enail: laic/Luig@coterra.com & ashton thielke@coterra.com         Antress:         600 N Maisminield St, Suile 600           .415         Turn Around         Faush         Program: UST/PST []PRP []snown         State of Project:           .0. NM         Due Date:         Rush         Pres.         AnALYSIS REQUEST         ADary           T         Tristans the day received by 4-30pm         Pres.         ANALYSIS REQUEST         Viewerables: EDD         ADary           Image: T         Tristans the day received by 4-30pm         Parameters         ANALYSIS REQUEST         Viewerables: EDD         ADary           Image: T         Targerature Reading         S.G. MO         Parameters         ANALYSIS REQUEST         Viewerables: EDD         Holp           View         Temperature Reading         S.G. MO         View RobitsM (GRO + DRO + MRO)         Image: Fill Address         Fill Address         Fill Address         Fill Address           View         Soil Wet Ics:         Yes (Grab)         Grab)         Fill Addres	Bill to:         reality:         Lad:         Luig         Work Or           415         Company Name:         Cimarex Energy         Program:         USTPST         Program:         Vork Or           415         Email:         address:         600 N Marienfield St. Suite 600         Program:         USTPST         Program:         Program:         USTPST         Program:         Vork Or           1         Email:         acit ubig@conterra.com & ashton.thielke@conterra.com         Midland, TX 79701         Date of Project:         Reporting:Level II         Level III         Level III         Level III         Deliverables:         EDD         A           30. NM         Due Date:         T         T starts the day received by rts usb, freeword by rts usb, freew	SA-2 (2') SA-2 (3') SA-2 (4')	SA-2 (2') SA-2 (3') SA-2 (4')	SA-2 (2') SA-2 (3') SA-7 (4')	SA-2 (2') SA-2 (3')	SA-2 (2')		117-110	SA-2 (1')	SA-2 (0-6")	SA-1 (3.5')	SA-1 (3')	SA-1 (2')	SA-1 (1')	SA-1 (0-6")	Sample Identification	Total Containers:	Seals: Yes	Yes	(Ne	SAMPLE RECEIPT Tem	PO#		Project Location Ed	Project Number:	Project Name: Crescent	Phone: 432-813-5347	City, State ZIP: Midland, TX 79701			Company Name: Carmona Resources	Project Manager: Ashton Thielke	
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Released to Imaging: 8/4/2023 12:46:48 PM

2



February 09, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CRESCENT HALE 12 FED #001 ( C.H. )

Enclosed are the results of analyses for samples received by the laboratory on 02/07/23 13:04.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 1 4' (H230523-01)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	96.6	% 86.7-11	1						
Surrogate: Toluene-d8	103	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	100	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	201	100	200	14.3	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	202	101	200	17.3	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	83.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.2	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 1 5' (H230523-02)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	95.5	% 86.7-11	1						
Surrogate: Toluene-d8	102	% 89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.9	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	201	100	200	14.3	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	202	101	200	17.3	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	99.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 1 6' (H230523-03)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	94.5	% 86.7-11	1						
Surrogate: Toluene-d8	102	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.7	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	201	100	200	14.3	
DRO >C10-C28*	35.4	10.0	02/08/2023	ND	202	101	200	17.3	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	86.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.9	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 2 8' (H230523-04)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	93.6	% 86.7-11	1						
Surrogate: Toluene-d8	101	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	101	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	′kg	Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	207	104	200	2.16	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	205	102	200	4.52	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	112 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	114 9	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 2 10' (H230523-05)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	92.5	% 86.7-11	1						
Surrogate: Toluene-d8	101	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	101	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	207	104	200	2.16	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	205	102	200	4.52	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	118 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 2 12' (H230523-06)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	93.8	% 86.7-11	1						
Surrogate: Toluene-d8	102	% 89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.4	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/08/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	207	104	200	2.16	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	205	102	200	4.52	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	105	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108	% 49.1-14	8						

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#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

# Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Received b	y OCD:	3/27/2023	10:12:51 AM
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Project Manager: M. Collier	P.0.#	ANALYSIS REQUEST
Address:	company Linear ex En	Energy
City: State:	Zip: Attn: baci Luig	
Phone #: Fax #:	Address:	
Project #: Project Owner:	r: City:	
Project Name: CRESCENT HALE DA Fed	d# (CH) State: Zip:	
Project Location:	Phone #:	
Sampler Name: R.B.	Fax #:	
FOR LAB USE ONLY	MATRIX PRESERV. SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMF # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	TIME BTEX TPH Chlorides
2 SA-1 41		
5 5A-2 10		
( SA-2 n'		
R EASE MOTE. Likiburg Downood Confacts fishiburg disofts aveluate removed for any claim	any claim assisten whether based in contract or toot shall be limited to the amount read by the client for the	
ms including those for negligence and any other ant shall Cardinal be liable for incidental or conse	cause whatsoever shall be deemed walved unless made in writing and necelved by Cardinal within 30 days after completion of the applicable quentia damages, including without immation, business interruptions, loss of used for loss of notifs incurred by Bratic its subsidiaries, or fenotices hereuricher by Cardinal necarcities or Weather such shared uson any of the above stated reasons or observise.	npletion of the applicable 1.8 subditation. 5 of otherwise
Relinquished By: The last of the last of	Received By:	Verbal Result:   Yes  No Add'I Phone #: All Results are emailed. Please provide Email address:
Relinquished By: Date: Time:	Received By:	REMARKS: 3-Day
Delivered By: (Circle One)       Observed Temp. °C         Sampler - UPS - Bus - Other:       Corrected Temp. °C	I - A - Cool Intact     Cool Intact     CheckED BY:       O - U - Cool Intact	Turnaround Time:     Standard     Bacteria (only)     Sample Condition       Rush     Image: Cool Infact     Observed Temp. °C       Thermometer ID     #113     Image: Cool Infact     Observed Temp. °C       Correction Factor -0.9°C     Image: Cool Infact     No     Corrected Temp. °C



January 20, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CRESCENT HALE 12 FED #001 ( C.H. )

Enclosed are the results of analyses for samples received by the laboratory on 01/17/23 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 2 5' (H230228-01)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	QR-03
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	QR-03
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	QR-03
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	QR-03
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	1170	16.0	01/17/2023	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	207	104	200	8.35	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	191	95.3	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	80.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.6	% 49.1-14							

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 2 6' (H230228-02)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	01/17/2023	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	85.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	89.0	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 3 0' (H230228-03)

BTEX 8021B	mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/17/2023	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	238	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	86.6	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	86.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107 9	% 49.1-14	8						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: SA - 3 1' (H230228-04)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	120	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/17/2023	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	87.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	91.9	% 49.1-14	0						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: SA - 4 0' (H230228-05)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	1440	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	375	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	79.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: SA - 4 1' (H230228-06)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2023	ND	2.14	107	2.00	3.79	
Toluene*	0.051	0.050	01/20/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/20/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/20/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	86.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	90.4	% 49.1-14	8						

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\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: SA - 5 0-0.5' R (H230228-07)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	96.4	5.00	01/19/2023	ND	2.14	107	2.00	3.79	
Toluene*	351	5.00	01/19/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	124	5.00	01/19/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	245	15.0	01/19/2023	ND	6.48	108	6.00	5.14	
Total BTEX	817	30.0	01/19/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	5910	100	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	11600	100	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	1850	100	01/17/2023	ND					
Surrogate: 1-Chlorooctane	275	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	232	% 49.1-14	!8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: SA - 6 0-0.5' R (H230228-08)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	79.1	5.00	01/19/2023	ND	2.14	107	2.00	3.79	
Toluene*	461	5.00	01/19/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	207	5.00	01/19/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	416	15.0	01/19/2023	ND	6.48	108	6.00	5.14	
Total BTEX	1160	30.0	01/19/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	128	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	208	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	9780	100	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	26500	100	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	4360	100	01/17/2023	ND					
Surrogate: 1-Chlorooctane	467	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	520	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: H - 1 0-1' (H230228-09)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	90.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	94.9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: H - 2 0-1' (H230228-10)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	80.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	84.1	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: H - 3 0-1' (H230228-11)

BTEX 8021B	mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	119 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	79.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	85.1	% 49.1-14	0						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

# Sample ID: H - 4 0-1' (H230228-12)

BTEX 8021B	mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	119 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	74.0% 48.2-13-		4						
Surrogate: 1-Chlorooctadecane	77.4	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

#### Sample ID: H - 5 0-1' (H230228-13)

BTEX 8021B	mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	80.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	85.5	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	01/17/2023	Sampling Date:	01/17/2023
Reported:	01/20/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: H - 6 0-1' (H230228-14)

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2023	ND	2.14	107	2.00	3.79	
Toluene*	<0.050	0.050	01/18/2023	ND	2.15	108	2.00	4.97	
Ethylbenzene*	<0.050	0.050	01/18/2023	ND	2.11	105	2.00	5.23	
Total Xylenes*	<0.150	0.150	01/18/2023	ND	6.48	108	6.00	5.14	
Total BTEX	<0.300	0.300	01/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/18/2023	ND	448	112	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2023	ND	165	82.5	200	4.79	
DRO >C10-C28*	<10.0	10.0	01/17/2023	ND	153	76.4	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	01/17/2023	ND					
Surrogate: 1-Chlorooctane	89.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	94.4	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

Amanu Niama- USD	Datasnylene									2						ANAI VOIC	DECHES	-	
Company Name: H&R Enterprises	Enterprises									BI	BILL TO					ANALYSIS	ANALYSIS REQUEST	-	
Project Manager: Michael Collier	tel Collier								P.O. #:										
Address:									Compa	iny: Cin	Company: Cimarex Energy	At							_
City:	State:	Zip:	2						Attn: Laci Luig	aci Luig									
Phone #:	Fax #:								Address:	19:					_				
Project #:	Project Owner: Cimarex Energy	wner:	Cim	arex	Ene	YBJ			City:										
roject Name: Crescen	Project Name: Crescent Hale 12 Fed #001 (C.H.)								State:		Zip:								_
Project Location: Eddy County, NM	County, NM								Phone #:	井									
Sampler Name: Roy Bell	*								Fax #:										
FOR LAB USE ONLY		-	-	Н		A	MATRIX		PRE	PRESERV.	SAMPLING	LING							_
H230228		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER : ACID/BASE:	ICE / COOL OTHER :	DATE	TIME	BTEX	трн	Chlorides				
2		2 (	+	+	4		K	0	-	-	1/5/20		v	v	×		_	-	
SA-2	2 5	G	-	+	+	×				X	1/1/23		- >	~	->				-
Z SA-2 6	2 6'	_	_	-	-	-			-				-	-					-
3 SA-3 0'	3 0'	_		-	-	-			F	-			-	-	-				-
4 SA-3 1	5 I'	_	_	-	-	-				-			-	-					-
SA-4 0	\$ 0°		_	-	-				-	-			F	-					-
6 SA-4 1	1 I'	_	_	-	-	_			-	-			F						-
5 SA-	SA-5 0-0.5' R			-	-	_			-	-			F	-					-
Q SA-	SA-6 0-0.5' R	-	_	-	-				-	-			-						-
9 H-1	H-1 0-1'	C	-	-	-	-			-				F						
	H-2 0-1"	_	_	-	-	-				-			-	-					



Delivered By: (Circle One) Observed Sampler - UPS - Bus - Other: Corrected	Time:	Relinguished By: Date:	Time	Relinquished By: Date:
d Temp. "C 4,9 d Temp. "C 4,9 4,3	R		SSS V	17.23 Received
Sample Condition Cool Intuct 7 11 7 11 10 11 11 10 11 10 11 10 11 10		Received By:	Mucha a	ved By:
(Initials)		C	Mallal .	11/11/11
Tunaroomit Time: Standard I Bucksis (ool) Saepid Time: Cool Induct Observed Terep. 'C Thermonities ID \$11:3 Correction Factor -0.5°C		REMARKS: PG 1 of 2 72HR RUSH		Verbal Result:  Yes  No
a Condition				Add'l Phone #: address:
Connected Temp, VC				

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

**CARDINAL** Laboratories

Page 17 of 18

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: H&R Enterprises Project Manager: Michael Collier		P.O. #:		
Address:		Company: Cimarex Energy		
City:	State: Zip:	Attn: Laci Luig		
Phone #:	Fax#:	Address:		
Project #:	Project Owner: Cimarex Energy	City:		
Project Name: Crescent Hale 12 Fed #001 (C.H.)	001 (C.H.)	State: Zip:		
Project Location: Eddy County, NM		Phone #:		
Sampler Name: Roy Bell		Fax #:		
FOR UAL USE ONLY	MATRIX	XX PRESERV. SAMPLING	16	
Lab I.D.	G)RAB OR (C)OMP. I CONTAINERS OROUNDWATER WASTEWATER BOIL		BTEX TPH Chlorides	
// H-3 0-1'	1	X	X X X	
/2 H-4 0-1'				
1.1				
PLEASE NOTE: Liability and Damagan. Cardinal's fability and client's endine event shall Cardinal be liable for incidential or consequential damages, it atflades or successors arising out of or related to the performance of a	Full-RE NOTE: Unlary and Devigent Conference for the exclusion sensely for any classes transport on the contrast or to achieve that the final to be automatic processing of the contrast or to achieve the exclusion of the contrast or the contrast or to achieve the exclusion of the contrast or the con			
Relinquisbed By:	Date: 17.23 Received By:	17	Vierbai Result:	Add'i Phone #: ide Email address:
Relingerished By:	Date: Received By:	Recorded	REMARKS: PG 2 of 2 72HR RUSH	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. "C 4 9 Cool Infider Connected Temp. "C 4 9 Cool Infider 4.3 Drive 3 mile 1 Ma	tion CHECKED BY: (Initials)	Ternanound Time: Standard Decembra (100) Read: Cool Island: Cleanoved Terrip. 'C Thermometator ID #113 Thermometator ID #113	a joshy) Saengkin Condition p. 10 

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# **CARDINAL** Laboratories

17

in no

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



February 10, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CRESCENT HALE 12 FED #001 ( C.H. )

Enclosed are the results of analyses for samples received by the laboratory on 02/08/23 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 26 4' (H230561-01)

BTEX 8021B	mg/	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	101 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	0						

### Cardinal Laboratories

### \*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 3 6" (H230561-02)

BTEX 8021B	mg/	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	99.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

### Cardinal Laboratories

\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 9 3' (H230561-03)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	100	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104	% 49.1-14	8						

### **Cardinal Laboratories**

\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 13 3' (H230561-04)

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	nalyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	101 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

### Cardinal Laboratories

### \*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 18 3' (H230561-05)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	24						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	99.3	% 48.2-13	24						

### **Cardinal Laboratories**

\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 1 6" (H230561-06)

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	alyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	105 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	49.1-14	8						

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\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 12 3' (H230561-07)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/09/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/09/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/09/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/09/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/09/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	98.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

### **Cardinal Laboratories**

\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/08/2023	Sampling Date:	02/08/2023
Reported:	02/10/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: BG - 6 0-1' (H230561-08)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/10/2023	ND	1.84	92.2	2.00	12.0	
Toluene*	<0.050	0.050	02/10/2023	ND	1.90	94.9	2.00	9.11	
Ethylbenzene*	<0.050	0.050	02/10/2023	ND	1.89	94.7	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/10/2023	ND	5.70	95.1	6.00	8.98	
Total BTEX	<0.300	0.300	02/10/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/09/2023	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	211	105	200	3.03	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	204	102	200	3.32	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	105	% 49.1-14	8						

### **Cardinal Laboratories**

\*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

## 101 East Marland, Hobbs, NM 88240 aboratories (575) 393-2326 FAX (575) 393-2476

ARDINA

Project Manager:

Company Name: H+K Eiterprises

BILL TO

ANALYSIS REQUEST

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affiliates or successors arisi Relinguished By	PLEASE NOTE: Liability and anniyees. All datims including service. In no events shall Carin affiliates or successors arising Relinguished By:		າຍທ	1+w	e	Lab I.D.	FOR LAB USE ONLY	Sampler Name: K,150 11	Project Location:	Project Name:	Project #:	Phone #:	City:	Address:	Project Manager:
service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profile incurred by client, its sublidiaries, antiliates or successors arising out of or reliated to the partormance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above statued reasons or otherwise.           Relinquished By:         Date: & -3.3         Received By:         Verbail Result         Verbail Result           Time; 2.5         Time; 2.5         NULL Dr.A         Ultrail of the sould by client is used to be partormance of the second or otherwise.	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the annual shall be deemed waived unless made in writing and received by Cardinal within 20 days after comparison of the annual be deemed waived unless made in writing and received by Cardinal within 20 days after comparison of the annual beard of the annual beard or	BG-6 0-11	5-18 3'	5-13 31	5-3 6"	Sample I.D.		: K,130 11	n:	Project Name: Crescent Hale 12 Fed #	Project Owner:	Fax #:	State:		er: M. Collier
cluding without limitation, business interruptions, too rr by Cardinal, regardless of whether such claim is Received By:	y for any claim arising whether based in contra all be deemed walved untess made in writing				- C	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	P. MATRIX			(H2) 1# P			Zip:		
n loss of use, or loss of profits incurred by client, in is based upon any of the above stated reason	act or ford, shall be limited to the amount paid by and or ford, shall be limited to the amount paid by and received by Catolana within 30 daws after core				+ 2/8/23	SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	PRESERV. SAMPLING	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn: Laci Luig	company: Cimarex Energy	P.O. #:
ient is subdicine systematic stors or otherwise. Verbal Result: □ Yes □ No  Add'I Ph All Results are emailed. Please provide Email	y the client for the analysis				XXX	TTPH Chloride							J7 .	Sherry	
Add'I Ph ovide Email										1	_	_			

Received by OCD: 3/27. 022 10

Relinquished By: Sampler - UPS - Bus - Other: Delivered By: (Circle One) , Observed Temp. °C Corrected Temp. °C Time: Date: † Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com 3 3.9 **Received By:** Cool Intact Yes Yes No No No Sample Condition CHECKED BY: (Initials) Turnaround Time: Thermometer ID #113 Correction Factor -0.6°C REMARKS: 2-Day Standard KO Bacteria (only) Sample Condition Cool Intact Observed Temp. Yes Yes Nc No Corrected Temp. none #: address: Observed Temp. °C Corrected Temp. °C



February 09, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CRESCENT HALE 12 FED #001 ( C.H. )

Enclosed are the results of analyses for samples received by the laboratory on 02/07/23 13:04.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 1 6" (H230529-01)

BTEX 8260B	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28			
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29			
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69			
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30			
Total BTEX	<0.150	0.150	02/08/2023	ND							
Surrogate: Dibromofluoromethane	92.4 % 86.7-111		1								
Surrogate: Toluene-d8	<i>99.0 % 89.3-110</i>		0								
Surrogate: 4-Bromofluorobenzene	99.9	% 88.2-10	8								
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00			
TPH 8015M	mg	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55			
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24			
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND							
Surrogate: 1-Chlorooctane	91.4	% 48.2-13	4								
Surrogate: 1-Chlorooctadecane	98.6	% 49.1-14	8								

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 2 6" (H230529-02)

BTEX 8260B	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28			
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29			
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69			
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30			
Total BTEX	<0.150	0.150	02/08/2023	ND							
Surrogate: Dibromofluoromethane	94.9	% 86.7-11	1								
Surrogate: Toluene-d8	101 % 89.3-110		0								
Surrogate: 4-Bromofluorobenzene	99.3	% 88.2-10	8								
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	64.0	16.0	02/09/2023	ND	432	108	400	0.00			
TPH 8015M	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55			
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24			
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND							
Surrogate: 1-Chlorooctane	89.7	% 48.2-13	4								
Surrogate: 1-Chlorooctadecane	97.4	% 49.1-14	8								

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 4 6" (H230529-04)

BTEX 8260B	mg,	′kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28			
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29			
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69			
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30			
Total BTEX	<0.150	0.150	02/08/2023	ND							
Surrogate: Dibromofluoromethane	92.8	% 86.7-11	1								
Surrogate: Toluene-d8	102 % 89.3-110		0								
Surrogate: 4-Bromofluorobenzene	99.9	% 88.2-10	8								
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	128	16.0	02/09/2023	ND	432	108	400	0.00			
TPH 8015M	mg,	′kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55			
DRO >C10-C28*	10.7	10.0	02/08/2023	ND	201	100	200	2.24			
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND							
Surrogate: 1-Chlorooctane	90.2	% 48.2-13	4								
Surrogate: 1-Chlorooctadecane	97.5	% 49.1-14	8								

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 5 2' (H230529-05)

BTEX 8260B	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28			
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29			
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69			
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30			
Total BTEX	<0.150	0.150	02/08/2023	ND							
Surrogate: Dibromofluoromethane	94.0	% 86.7-11	1								
Surrogate: Toluene-d8	102 % 89.3-110		0								
Surrogate: 4-Bromofluorobenzene	99.6	% 88.2-10	8								
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	192	16.0	02/09/2023	ND	432	108	400	0.00			
TPH 8015M	mg	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55			
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24			
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND							
Surrogate: 1-Chlorooctane	95.0	% 48.2-13	4								
Surrogate: 1-Chlorooctadecane	103	% 49.1-14	8								

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 6 2' (H230529-06)

BTEX 8260B	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28			
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29			
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69			
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30			
Total BTEX	<0.150	0.150	02/08/2023	ND							
Surrogate: Dibromofluoromethane	92.8	% 86.7-11	1								
Surrogate: Toluene-d8	101 % 89.3-110		0								
Surrogate: 4-Bromofluorobenzene	99.1	% 88.2-10	8								
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	16.0	16.0	02/09/2023	ND	432	108	400	0.00			
TPH 8015M	mg,	/kg	Analyze	d By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55			
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24			
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND							
Surrogate: 1-Chlorooctane	89.8	% 48.2-13	4								
Surrogate: 1-Chlorooctadecane	97.2	% 49.1-14	8								

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

02/07/2023	Sampling Date:	02/07/2023
02/09/2023	Sampling Type:	Soil
CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
NONE GIVEN	Sample Received By:	Shalyn Rodriguez
CIMAREX - EDDY CO NM		
	02/09/2023 CRESCENT HALE 12 FED #001 ( C.H. ) NONE GIVEN	02/09/2023Sampling Type:CRESCENT HALE 12 FED #001 ( C.H. )Sampling Condition:NONE GIVENSample Received By:

### Sample ID: S - 7 2' (H230529-07)

BTEX 8260B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	95.1	% 86.7-11	1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	97.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	89.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	96.6	% 49.1-14	8						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 8 2' (H230529-08)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	92.3	% 86.7-11	1						
Surrogate: Toluene-d8	101	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.3	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	96.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104	% 49.1-14	8						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 10 3' (H230529-10)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	94.0	% 86.7-11	1						
Surrogate: Toluene-d8	105 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.5	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	91.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.6	% 49.1-14	8						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 11 3' (H230529-11)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	95.7	% 86.7-11	1						
Surrogate: Toluene-d8	106 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	99.3	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	90.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.5	% 49.1-14	8						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 12 3' (H230529-12)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	93.3	% 86.7-11	1						
Surrogate: Toluene-d8	104 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	97.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	212	106	200	3.55	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	201	100	200	2.24	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	89.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 14 3' (H230529-14)

BTEX 8260B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	95.3	% 86.7-11	1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.0	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	105	% 48.2-13	4						

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H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 15 3' (H230529-15)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	95.5 % 86.7-111		1						
Surrogate: Toluene-d8	102 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.9	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/09/2023	ND	400	100	400	7.69	QR-03
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	98.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	116 9	% 49.1-14	0						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 16 3' (H230529-16)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	96.5 % 86.7-111		1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.0	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	102	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 17 3' (H230529-17)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/08/2023	ND	1.95	97.3	2.00	1.28	
Toluene*	<0.025	0.025	02/08/2023	ND	2.12	106	2.00	1.29	
Ethylbenzene*	<0.025	0.025	02/08/2023	ND	2.21	110	2.00	1.69	
Total Xylenes*	<0.075	0.075	02/08/2023	ND	6.50	108	6.00	2.30	
Total BTEX	<0.150	0.150	02/08/2023	ND					
Surrogate: Dibromofluoromethane	92.5 % 86.7-111		1						
Surrogate: Toluene-d8	102 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	99.8	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	99.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	110 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 19 3' (H230529-19)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.7 % 86.7-111		1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.8	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	94.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 20 3' (H230529-20)

BTEX 8260B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	92.1 % 86.7-111		1						
Surrogate: Toluene-d8	100 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	97.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	96.0	% 48.2-13	4						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 21 2' (H230529-21)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.7 % 86.7-111		1						
Surrogate: Toluene-d8	101 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	95.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	179	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	29.3	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	98.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 22 2' (H230529-22)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.0	% 86.7-11	1						
Surrogate: Toluene-d8	102	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	100	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	169	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	30.3	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	99.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	115 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 23 2' (H230529-23)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.8	% 86.7-11	1						
Surrogate: Toluene-d8	104	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.9	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	16.7	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	93.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	105	% 49.1-14	8						

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 24 2' (H230529-24)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.2	% 86.7-11	1						
Surrogate: Toluene-d8	105	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.1	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	213	107	200	6.06	
DRO >C10-C28*	15.5	10.0	02/08/2023	ND	214	107	200	13.9	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	98.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	49.1-14	8						

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 2 6" (H230529-28)

BTEX 8260B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.1	% 86.7-11	1						
Surrogate: Toluene-d8	102 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	97.8	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	100	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 3 6" (H230529-29)

BTEX 8260B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.3	% 86.7-11	1						
Surrogate: Toluene-d8	104 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.9	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	108 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 4 6" (H230529-30)

BTEX 8260B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	96.0	% 86.7-11	1						
Surrogate: Toluene-d8	104 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.3	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	104 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	115 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 5 2' (H230529-31)

BTEX 8260B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.4	% 86.7-11	1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	100	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	97.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107	% 49.1-14							

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 6 2' (H230529-32)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.7	% 86.7-11	1						
Surrogate: Toluene-d8	103	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.7	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	99.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	110 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 7 2' (H230529-33)

BTEX 8260B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.9	% 86.7-11	1						
Surrogate: Toluene-d8	102 9	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.2	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	103 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 8 2' (H230529-34)

BTEX 8260B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.1	% 86.7-11	1						
Surrogate: Toluene-d8	104 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	99.5	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	114 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H. )	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 9 2' (H230529-35)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	96.0	% 86.7-11	1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	100	88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	101	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 10 2' (H230529-36)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.4	% 86.7-11	1						
Surrogate: Toluene-d8	103	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.3	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	98.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108	% 49.1-14	8						

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 11 3' (H230529-37)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.2	% 86.7-11	1						
Surrogate: Toluene-d8	103	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	<10.0	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	114 9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 13 3' (H230529-39)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	93.5	% 86.7-11	1						
Surrogate: Toluene-d8	104	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.3	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/09/2023	ND	400	100	400	7.69	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	241	120	200	3.94	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	217	109	200	0.718	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	101	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	110 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 14 3' (H230529-40)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.6	% 86.7-11	1						
Surrogate: Toluene-d8	102 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.9	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	241	120	200	3.94	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	217	109	200	0.718	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	93.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 15 2' (H230529-41)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.1	% 86.7-11	1						
Surrogate: Toluene-d8	102 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	98.4	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	241	120	200	3.94	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	217	109	200	0.718	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	90.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.4	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 16 2' (H230529-42)

BTEX 8260B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.93	96.7	2.00	2.10	
Toluene*	<0.025	0.025	02/09/2023	ND	2.09	105	2.00	2.31	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.18	109	2.00	1.93	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.41	107	6.00	1.76	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	96.1	% 86.7-11	1						
Surrogate: Toluene-d8	103 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	100	88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	241	120	200	3.94	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	217	109	200	0.718	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	94.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 17 2' (H230529-43)

BTEX 8260B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.6	% 86.7-11	1						
Surrogate: Toluene-d8	102 9	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.8	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	241	120	200	3.94	
DRO >C10-C28*	13.9	10.0	02/09/2023	ND	217	109	200	0.718	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	97.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 18 2' (H230529-44)

BTEX 8260B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.4	% 86.7-11	1						
Surrogate: Toluene-d8	105 9	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.4	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/08/2023	ND	192	95.9	200	0.787	
DRO >C10-C28*	18.3	10.0	02/08/2023	ND	185	92.6	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	02/08/2023	ND					
Surrogate: 1-Chlorooctane	117 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	128 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 19 2' (H230529-45)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.9	% 86.7-11	1						
Surrogate: Toluene-d8	102	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.0	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	12.5	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	79.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	84.9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 20 2-4' (H230529-46)

BTEX 8260B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.0	% 86.7-11	1						
Surrogate: Toluene-d8	103 9	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.7	% 88.2-10	8						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	21.6	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	99.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 21 4' (H230529-47)

BTEX 8260B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	96.9	% 86.7-11	1						
Surrogate: Toluene-d8	103	% 89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	152	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	22.3	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	85.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.5	% 49.1-14	0						

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 22 2-4' (H230529-48)

BTEX 8260B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	96.7	% 86.7-11	1						
Surrogate: Toluene-d8	104 % 89.3-110		0						
Surrogate: 4-Bromofluorobenzene	100	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	16.7	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	89.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	96.8	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: TW - 1 2-4' (H230529-49)

BTEX 8260B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.0	% 86.7-11	1						
Surrogate: Toluene-d8	103	% 89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.7	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	14.8	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	88.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.5	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: BG - 1 0-1' (H230529-50)

BTEX 8260B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.9	% 86.7-11	1						
Surrogate: Toluene-d8	104	% 89.3-11	0						
Surrogate: 4-Bromofluorobenzene	101	% 88.2-10	8						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	105	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	114	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

02/07/2023	Sampling Date:	02/07/2023
02/09/2023	Sampling Type:	Soil
CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
NONE GIVEN	Sample Received By:	Shalyn Rodriguez
CIMAREX - EDDY CO NM		
	02/09/2023 CRESCENT HALE 12 FED #001 ( C.H. ) NONE GIVEN	02/09/2023Sampling Type:CRESCENT HALE 12 FED #001 ( C.H. )Sampling Condition:NONE GIVENSample Received By:

### Sample ID: BG - 2 0-1' (H230529-51)

BTEX 8260B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	95.5	% 86.7-11	1						
Surrogate: Toluene-d8	103	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.1	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	84.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	92.5	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

02/07/2023	Sampling Date:	02/07/2023
02/09/2023	Sampling Type:	Soil
CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
NONE GIVEN	Sample Received By:	Shalyn Rodriguez
CIMAREX - EDDY CO NM		
	02/09/2023 CRESCENT HALE 12 FED #001 ( C.H. ) NONE GIVEN	02/09/2023Sampling Type:CRESCENT HALE 12 FED #001 ( C.H. )Sampling Condition:NONE GIVENSample Received By:

### Sample ID: BG - 3 0-1' (H230529-52)

BTEX 8260B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	92.8	% 86.7-11	1						
Surrogate: Toluene-d8	102	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	99.6	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	85.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.2	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/07/2023	Sampling Date:	02/07/2023
Reported:	02/09/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: BG - 4 0-1' (H230529-53)

BTEX 8260B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/09/2023	ND	1.90	94.8	2.00	0.858	
Toluene*	<0.025	0.025	02/09/2023	ND	2.05	102	2.00	1.09	
Ethylbenzene*	<0.025	0.025	02/09/2023	ND	2.12	106	2.00	0.0132	
Total Xylenes*	<0.075	0.075	02/09/2023	ND	6.30	105	6.00	0.816	
Total BTEX	<0.150	0.150	02/09/2023	ND					
Surrogate: Dibromofluoromethane	94.1	% 86.7-11	1						
Surrogate: Toluene-d8	102	89.3-11	0						
Surrogate: 4-Bromofluorobenzene	98.0	% 88.2-10	8						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/09/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/09/2023	ND	201	100	200	1.11	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	199	99.7	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					
Surrogate: 1-Chlorooctane	70.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	76.4	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Interview     State:     Zip:     Project Owner:     Company:     Cimaret X Enlagy       Fax #:     Project Owner:     Company:     Cimaret X Enlagy       Gressent Hale     IA Fed # /     (C H)     State:     Zip:       R.Bell     IR Attr:     Caci Luig       Sample I.D.     GROUNDWATER     MATRIX     Preservi       Soil     State:     Zip:     Address:       Soil     State:     Zip:     Phone #:       Project Owner:     C (G)RAB OR (C)OMP.     Phone #:     Phone #:       R.Bell     Fax #:     State:     Zip:       Sample I.D.     GROUNDWATER     Preservi     Samplus       Vastewater     Y soil     State:     Zip:       Sample I.D.     GROUNDWATER     Preservi     Samplus       Vastewater     Y soil     State:     Zip:       State:     Image:     Fax #:     Zip:       Actividaes     TIME     TIME     X       X     TPH     X     Chilwidaes					-6
Instructure     Project Owner:     Project Owner:       Crescent Hale II. Fax #:     Project Owner:       R. Bell     If Ed # /       K. Bell     If Ed # /       GROUNDWATER     MATRIX       VASTEWATER     State:       Soll     OIL       OIL     If Ed # /       GROUNDWATER     MATRIX       PRESERV     State:       Soll     OIL       OIL     State:       State:     If Ed # /       GROUNDWATER     PRESERV       Soll     OIL       OIL     State:       State:     If Ed # /       Childrage     If Ed # /       MATRIX     PRESERV       Soll     OIL       OIL     State:       State:     If Ed # /       Childrage     If Ed # /       MATRIX     PRESERV       Soll     OIL       OIL     State:       TIME     If Ed # /       Childrage     If Ed # /		× × ×	×		5-1 6
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Intervention     Political       r. M. Collier     State:       State:     Zip:       Fax #:     Company: $C_{initianet} \times Cheggy$ Fax #:     Project Owner:       Project Owner:     Address:       Project Owner:     City:       Cressent Hale:     Red # 1       City:     State:       Zip:     Phone #:       Pone     Fax #:       Sample I.D.     OR (C)OMP.       Numer:     Fax #:       VWATER     Matrix       PRESERV.     Samplung       WATER     Matrix       Advides       Mutrides		BI	VASTE SOIL DIL SLUDG DTHER ACID/B CE / CO		4721579
Httk     Entroppinges     PICE     PICE     PICE       r. M. Collier     State:     Zip:     Company: Cinnard X Ethagy       State:     Zip:     Attn: Lec: Luig       Fax #:     Project Owner:     Address:       Project Owner:     City:       R.Bell     Red # /       (CH)     State:       Zip:     Phone #:       OMP.     MATRIX       PRESERV.     SAMPLING       X     Vidage		DI	E ASE: OOL	OR (	Lab I.D. Samp
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Hork Entroprises     P.O. #:       r: M. Collier     P.O. #:       State:     Zip:       State:     Zip:       Fax #:     Address:       Project Owner:     City:       Cressent Hale A Fed#/ (CH)     State:     Zip:       R.Bell     Fax #:     Address:			PRESERV.	1P.	FOR LAB USE ONLY
Hork Entroprises     PILLIO       M.Collier     P.O. #:       State:     Zip:       Fax #:     Company: Cimarex Energy       Fax #:     Attn: Lac: Luig       Project Owner:     Address:       Project Owner:     City:       State:     Zip:       Project Owner:     City:       Project Owner:     City:       Phone #:     Phone #:	8		Fax #:		Sampler Name: K.Bell
r: MC Control Project Owner: Crescent Hale D Fed#1 (CH) State: Zip: Fax#: Project Owner: Crescent Hale D Fed#1 (CH) State: Zip: Crescent Hale D Fed#1 (CH)			Phone #:		Project Location:
anager: M. Collier Zip: P.O. #: Fax #: Zip: Attn: Laci Luig Project Owner: City:			State:	D Fed#1 (	1
Ianager: M. Collier State: Zip: Attn: Laci Luig Fax #: Address:			City:	Project Owner:	Project #:
Tanager: M. Collier State: Zip: Attn: Laci Luig			Address:	Fax #:	Phone #:
Tanager: M. Collier P.O. #: Company: Cinarex Energy			Lac: Luig		City:
M.Collier P.O.#:		chargy	Cimarex		Address:
HAK ENTERNISES DILLIN DILLING			P.O. #:	1.	Project Manager: M. Collier
BILL TO ANALYSIS	ANALYSIS REQUEST		BILL TO	rprises	Company Name: Ht & Enter

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Relinquished By: Relinquished By: service. In no event shall Cardinal be liable for incid analyses. All claims including those for negligence and any Sampler - UPS - Bus - Other: LEASE NOTE: Delivered By: (Circle One) H230529 U 5 S 2 15 and Da 5 S 5-14 5-12 5-16 -17 51-15 1 out of or reli 20 ま 2 ww w W w S ww W

0 Cardinal's liability F Sample I.D. ntal or co Observed Temp. °C Date: Time: State Time: Project Owner: Fax #: pate: ès. ages, including without limitation, business inter sunder by shall be Zip: 2 Received By: GRAB OR (C)OMP Received By **# CONTAINERS** GROUNDWATER Sample Condition WASTEWATER made in writing and received by MATRIX × SOIL X OIL SLUDGE ons, loss of use, or loss of profits incurred by client, its subsi ract or tort, sha OTHER City: Fax #: State: Phone #: Attn: Company: Address: ACID/BASE PRESERV CHECKED BY: Cardinal ICE / COOL OTHER of the above to the within 30 days after completion of the ap 2/7/23 Zip DATE SAMPLING paid by the client for the Turnaround Time: All Results are emailed. Please provide Email address: Verbal Result: REMARKS: S 01 00 TIME BTEX □ Yes 3-Dax hlorides Standard Rush ON D Add'l Phone #: XD 8 anc Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes Yes Nc No Corrected Temp. °C 4CC 6 pg 2 of6 1 Ye 2/7 N 2/23 23

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Corrected Temp. °C

Cool Intact

(Initials)

Correction Factor -0.6°C

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Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Page 136 of 147

City:

Address:

Project Manager:

P.O. #:

BILL

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ANALYSIS REQUEST

Company Name:

(575) 393-2326 FAX (575) 393-2476

Sampler Name:

FOR LAB USE ONLY

Lab I.D

Project Location: Project Name: Project #: Phone #:

### Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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101 Eas: (575) 3 Project Manager: Address: City: Phone #: Project #: Project Name: Project Location: Sampler Name:	p: P.O. #: P.O. #: Company: Attn: Atdress: City: State: Zip: Phone #: Fax #: PRESERV
Project Location:       Sampler Name:       FOR LAB USE ONLY       FOR LAB USE ONLY       Lab I.D.       Sample       12:30529	SLUDGE
2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2	
$\frac{2}{30} \qquad S_W - 3 \qquad 6^{11}$ $\frac{2}{30} \qquad S_W - 4 \qquad 6^{11}$ PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claimana/see. Al claims including those for negligence and any other cause whatsower shall be deem namises. All claims including the liable for incidential or consequential damages, including witho service. In no event shall Cardinal be liable for incidential or consequential damages, including witho	im arising whether be ad waived unless ma of limitation, busines
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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Relinquished By Relinquished By PLEASE NOTE: Liab Sampler Name: Project Location: City: Project Manager: Sampler - UPS - Bus - Other: ervice. In no event shall Cardinal be liable inalyses. All claims H230529 Project Name: Company Name: Delivered By: (Circle One) Project #: Phone #: Address: FOR LAB USE ONLY Lab I.D. F to uding those for 54-15 E, 101 East Marland, Hobbs, NM 88240 5 (575) 393-2326 FAX (575) 393-2476 Ŧ n0 ted to the for incidental or Sample I.D. and any other cause 0-1 2-4 2-4 2-4 2 2 2 3 2 Corrected Temp. °CO Observed Temp. °C / 2 Pate; 3.3.5 Time: 130 Time: Date: Fax #: † Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com Project Owner: utai dan State: ages, including without limitation, business shall be dee **Received By** Zip Received By: ィ GRAB OR (C)OMP **#CONTAINERS** walved GROUNDWATER unless Cool Intact Sample Condition WASTEWATER made in writing and received by Cardinal within 30 days after MATRIX K SOIL OIL claim is based upon any of the above stated ons, loss of use, or loss of profits incurred by client, its subsidiaries SLUDGE OTHER City: P.O. #: Fax #: Phone #: State: Attn: Company: Address: ACID/BASE PRESERV CHECKED BY: ICE / COOL (Initials) OTHER BILL TO 2-7/23 Zip DATE SAMPLING aid by the client Correction Factor -0.6°C Turnaround Time: All Results are emailed. Please provide Email address: REMARKS: Verbal Result: TIME ion of the applicable TPH □ Yes Chlorides 3-Dax BTEX Standard Rush 5 O No 8 Add'l Phone #: ANALYSIS Cool Intact Bacteria (only) Sample Condition Pg 50f6 REQUEST Observed Temp. Corrected Temp. °C റ

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Project Manager:		P.O. #: Company: Attn: Address: City: State: Zip: State: Zip: Phone #: Fax #: Fax #: SAMPLING	
Lab I.D. Sam	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER	SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE	TPH Chloride
53 84-2 0- 54 84-2 0- 54 84-3			X X X Cancelled to 2/1/23
annae or successors a ning out of or related for incident Relinquished By:	e performance of swinces hereunder by Cardinal, legardlesse dwi Date: Time: 1304 Received By: Time: 1304 Received By: 1304 Received By:	the such claim is based upon any of the above stated reasons or otherwise. Verbal Results a All Results a REMARKS:	ont is subdanes, sont or otherwise Verbal Result: ☐ Yes ☐ No Add'I Phone #: All Results are emailed. Please provide Email address: RFMARKS·

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February 17, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CRESCENT HALE 12 FED #001 ( C.H. )

Enclosed are the results of analyses for samples received by the laboratory on 02/13/23 11:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/13/2023	Sampling Date:	02/13/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 21 2'5" (H230659-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/16/2023	ND	1.98	99.1	2.00	4.38	
Toluene*	<0.050	0.050	02/16/2023	ND	2.04	102	2.00	4.22	
Ethylbenzene*	<0.050	0.050	02/16/2023	ND	2.02	101	2.00	4.73	
Total Xylenes*	<0.150	0.150	02/16/2023	ND	6.30	105	6.00	4.75	
Total BTEX	<0.300	0.300	02/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	96.0	16.0	02/15/2023	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	191	95.6	200	1.76	
DRO >C10-C28*	<10.0	10.0	02/15/2023	ND	176	88.1	200	1.29	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					
Surrogate: 1-Chlorooctane	108	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	116 9	% 49.1-14	P						

### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/13/2023	Sampling Date:	02/13/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: S - 22 2'5" (H230659-02)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2023	ND	1.98	99.1	2.00	4.38	
Toluene*	<0.050	0.050	02/16/2023	ND	2.04	102	2.00	4.22	
Ethylbenzene*	<0.050	0.050	02/16/2023	ND	2.02	101	2.00	4.73	
Total Xylenes*	<0.150	0.150	02/16/2023	ND	6.30	105	6.00	4.75	
Total BTEX	<0.300	0.300	02/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/15/2023	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	191	95.6	200	1.76	
DRO >C10-C28*	<10.0	10.0	02/15/2023	ND	176	88.1	200	1.29	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					
Surrogate: 1-Chlorooctane	102 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received:	02/13/2023	Sampling Date:	02/13/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	CRESCENT HALE 12 FED #001 ( C.H.)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - EDDY CO NM		

### Sample ID: SW - 21 4'5" (H230659-03)

BTEX 8021B	mg/	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2023	ND	1.98	99.1	2.00	4.38	
Toluene*	<0.050	0.050	02/16/2023	ND	2.04	102	2.00	4.22	
Ethylbenzene*	<0.050	0.050	02/16/2023	ND	2.02	101	2.00	4.73	
Total Xylenes*	<0.150	0.150	02/16/2023	ND	6.30	105	6.00	4.75	
Total BTEX	<0.300	0.300	02/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/15/2023	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					
Surrogate: 1-Chlorooctane	76.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	82.2	% 49.1-14	0						

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Address: Company: CIM NORY
State: Zip:
Fax#:
Project Name: CRESCENT LIANT IS TO THE CINAREX City:
Project Account HALE I' FED" I State: Zip:
Phone #:
MATRIX
(C)OMP ERS ATER ER
# CONTAINE GROUNDW/ WASTEWAT
5. 22 2'.5"
PLEASE NOTE: Lability and Damages. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or bot, shall be limited to the amount paid by the client for the service. In the event shall Cardina the labels for other cause whatsoever shall be deemed valved unless made in writing and measure have be instead on the simulation of the the service.
affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or observice. Refinquished By: Date: Received By:
Relinduished By:
Time: Remarks:
Delivered By: (Circle One)       Observed Temp. °C       Old Provided P

Received by OCD: 3/27/2023 10:12:51 AM

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District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
CIMAREX ENERGY CO. OF COLORADO	162683
6001 Deauville Blvd, Ste 300N	Action Number:
Midland, TX 79706	200977
	Action Type:
	[C-141] Release Corrective Action (C-141)
	-

### CONDITIONS

Created By		Condition Date
amaxwell	None	8/4/2023

Action 200977

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