

# State of Colorado Oil and Gas Conservation Commission

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Document Number:

403098899

Receive Date:

10/13/2022

Report taken by:

Laurel Anderson

## Site Investigation and Remediation Workplan (Initial Form)

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27. This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

### OPERATOR INFORMATION

Name of Operator: <u>BONANZA CREEK ENERGY OPERATING COMPANY LLC</u>	Operator No: <u>8960</u>	<b>Phone Numbers</b>  Phone: <u>(303) 2947864</u> Mobile: <u>( )</u>
Address: <u>410 17TH STREET SUITE #1400</u>		
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		
Contact Person: <u>Jacob Evans</u> Email: <u>jevans@civiresources.com</u>		

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 27247 Initial Form 27 Document #: 403098899

#### PURPOSE INFORMATION

- ☐ Rule 913.c.(1): Pit or Cuttings Trench closure.
- ☐ Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- ☐ Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- ☐ Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- ☐ Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- ☐ Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- ☐ Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- ☐ Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- ☒ Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- ☐ Rule 913.g: Changes of Operator.
- ☐ Rule 915.b: Request to leave elevated inorganics in situ.
- ☐ Other: \_\_\_\_\_

#### SITE INFORMATION

Yes ☐ Multiple Facilities ☐

Facility Type: <u>LOCATION</u>	Facility ID: <u>421167</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Antelope 42-31</u>	Latitude: <u>40.357970</u>	Longitude: <u>-104.359360</u>	
** correct Lat/Long if needed: Latitude: _____ Longitude: _____			
QtrQtr: <u>SENE</u>	Sec: <u>31</u>	Twp: <u>5N</u>	Range: <u>62W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>
Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>123-32834</u>	County Name: <u>WELD</u>
Facility Name: <u>Antelope 42-31</u>	Latitude: <u>40.358030</u>	Longitude: <u>-104.359330</u>	
** correct Lat/Long if needed: Latitude: _____ Longitude: _____			
QtrQtr: <u>SENE</u>	Sec: <u>31</u>	Twp: <u>5N</u>	Range: <u>62W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

Facility Type: WELL		Facility ID: _____		API #: 123-32891		County Name: WELD	
Facility Name: Antelope 32-31				Latitude: 40.358060		Longitude: -104.359330	
** correct Lat/Long if needed: Latitude: _____ Longitude: _____							
QtrQtr: SENE	Sec: 31	Twp: 5N	Range: 62W	Meridian: 6	Sensitive Area? No		

  

Facility Type: WELL		Facility ID: _____		API #: 123-32892		County Name: WELD	
Facility Name: Antelope Q-31				Latitude: 40.358110		Longitude: -104.359330	
** correct Lat/Long if needed: Latitude: _____ Longitude: _____							
QtrQtr: SENE	Sec: 31	Twp: 5N	Range: 62W	Meridian: 6	Sensitive Area? No		

## **SITE CONDITIONS**

General soil type - USCS Classifications SP Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

### **Other Potential Receptors within 1/4 mile**

No surface water within 1/4 of a mile.

The Monitoring Well (DWR Receipt 0024459, Permit 24459-MH) approximately 390-ft to the N is the nearest permitted water well. This well was never constructed. The planned construction depth was 28-ft, no static water level recorded. Monitoring Well (DWR Receipt 0336034C, Permit 163748) is approximately 470-ft to the W. This well was constructed to 58-ft, is now abandoned, no static water level recorded. The Monitoring Well (DWR Receipt 0041939, Permit 41939-MH) approximately 1080-ft to the N. This well was never constructed. The planned construction depth was 50-ft, no static water level recorded.

Groundwater less than 20-ft is not expected at the disturbance location.

This location is not within a 1/4 mile of a HPH area.

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- ☐ E&P Waste ☐ Other E&P Waste ☒ Non-E&P Waste
- ☐ Produced Water ☐ Workover Fluids ☐ No waste has been generated to date
- ☐ Oil ☐ Tank Bottoms
- ☐ Condensate ☐ Pigging Waste
- ☐ Drilling Fluids ☐ Rig Wash
- ☐ Drill Cuttings ☐ Spent Filters
- ☐ Pit Bottoms
- ☐ Other (as described by EPA) \_\_\_\_\_

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	N/A	Laboratory Analytical

### INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

A site investigation will be conducted pursuant to COGCC rule 911 at the Antelope 42-31 (421167) oil and gas location pertaining to the cut/cap of the following wellheads: Antelope 42-31 (05-123-32834), Antelope 32-31 (05-123-32891), and Antelope Q-31 (05-123-32892), the partial decommission of production facilities and abandonment of the on-location associated wellhead flowlines. See site map exhibit for details.

### PROPOSED SAMPLING PLAN

#### Proposed Soil Sampling

☒ Will soil samples be collected as part of this investigation? ( Number, type (grab/composite), analyses, and locations of samples ):

Grab confirmation soil samples will be collected from beneath the western above ground oil tanks, water tank, separators, and wellheads to the east. Soil samples will be analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per COGCC Table 915-1, and EC, SAR, pH, and boron. All samples collected will be analyzed by a certified laboratory using approved COGCC laboratory analysis methods.

#### Proposed Groundwater Sampling

☐ Will groundwater samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

If groundwater is encountered during the site investigation a grab groundwater sample will be collected and analyzed for all organic compounds per COGCC Table 915-1.

#### Proposed Surface Water Sampling

☐ Will surface water samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

### Additional Investigative Actions

☐ Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

Visual inspection of the location will occur during abandonment activities. Field personnel will field screen all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required. The COGCC Tank Battery Closure and Wellhead Closure Checklists will be utilized and filled out during the abandonment process. A photolog will be submitted on the Subsequent Form 27.

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

#### Soil

Number of soil samples collected 0

Number of soil samples exceeding 915-1

Was the areal and vertical extent of soil contamination delineated?

#### NA / ND

Highest concentration of TPH (mg/kg)

Highest concentration of SAR

BTEX > 915-1

Approximate areal extent (square feet) \_\_\_\_\_

Vertical Extent > 915-1 (in feet) \_\_\_\_\_

#### Groundwater

Number of groundwater samples collected \_\_\_\_\_ 0

\_\_\_\_\_ Highest concentration of Benzene (µg/l) \_\_\_\_\_

Was extent of groundwater contaminated delineated? No \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Toluene (µg/l) \_\_\_\_\_

Depth to groundwater (below ground surface, in feet) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_

Number of groundwater monitoring wells installed \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Xylene (µg/l) \_\_\_\_\_

Number of groundwater samples exceeding 915-1 \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Methane (mg/l) \_\_\_\_\_

#### Surface Water

\_\_\_\_\_ 0 Number of surface water samples collected

\_\_\_\_\_ Number of surface water samples exceeding 915-1

If surface water is impacted, other agency notification may be required.

### OTHER INVESTIGATION INFORMATION

☐ Were impacts to adjacent property or offsite impacts identified?

☐ Were background samples collected as part of this site investigation?

☐ Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) \_\_\_\_\_

Volume of liquid waste (barrels) \_\_\_\_\_

☐ Is further site investigation required?

## REMEDIAL ACTION PLAN

### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

N/A

### REMEDIATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

N/A

### Soil Remediation Summary

☐ In Situ

☐ Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Excavate and onsite remediation

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Land Treatment

\_\_\_\_\_ Bioremediation (or enhanced bioremediation)

\_\_\_\_\_ Chemical oxidation

**Groundwater Remediation Summary**

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Other \_\_\_\_\_

**GROUNDWATER MONITORING**

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

## REMEDIATION PROGRESS UPDATE

### PERIODIC REPORTING

#### Approved Reporting Schedule:

☐ Quarterly☐ Semi-Annually☐ Annually☒ Other

#### ☐ Request Alternative Reporting Schedule:

☐ Semi-Annually☐ Annually☐ Other

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

#### Report Type:

☐ Groundwater Monitoring☐ Land Treatment Progress Report☐ O&M Report☐ Other

### Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

The General Liability coverage within the Civitas Resources insurance program includes coverage for bodily injury, property damage, and pollution clean-up costs arising from qualifying pollution events of a sudden and accidental nature subject to a \$1,000,000 per occurrence limit and \$2,000,000 aggregate limit. The Civitas Resources insurance program includes Excess Liability coverage of \$110,000,000 per occurrence and in the aggregate which sits over the sudden and accidental pollution within the General Liability coverage. It is the opinion of Civitas Resources that this total tower of limit is adequate to address the costs of remediation associated with any qualifying pollution event.

Operator anticipates the remaining cost for this project to be: \$ 0

### WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? \_\_\_\_\_

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_

E&P waste (solid) description \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_

E&P waste (liquid) description \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: \_\_\_\_\_

# RECLAMATION PLAN

## RECLAMATION PLANNING

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing.

Reclamation will be in accordance with COGCC 1000 Series Rules.

Is the described reclamation complete? No \_\_\_\_\_

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

☐ Interim ☐ Final

Did the Surface Owner provide the seed mix? \_\_\_\_\_

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? \_\_\_\_\_

## SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. \_\_\_\_\_

Proposed date of completion of Reclamation. \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

## PRIOR DATES

Date of Surface Owner notification/consultation, if required. 06/29/2022

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

## SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/14/2022

Proposed site investigation commencement. \_\_\_\_\_

Proposed completion of site investigation. \_\_\_\_\_

## REMEDIAL ACTION DATES

Proposed start date of Remediation. \_\_\_\_\_

Proposed date of completion of Remediation. \_\_\_\_\_

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

☐ Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

## OPERATOR COMMENT

This Form 27 Intent is submitted prior to decommissioning multiple related assets:  
- Cut/cap of the Antelope 42-31 (05-123-32834)  
- Cut/cap of the Antelope 32-31 (05-123-32891)  
- Cut/cap of the Antelope Q-31 (05-123-32892)  
- Partial decommission Antelope 42-31 location (421167)  
- Abandonment of related on-location flowlines at Antelope 42-31 location (421167)  
All other equipment will remain active.  
See attached Site Map for details.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Stephany Olsen

Title: Sr. Regulatory Analyst

Submit Date: 10/13/2022

Email: regulatory@civiresources.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Laurel Anderson

Date: 02/02/2023

Remediation Project Number: 27247

## COA Type

## Description

	If impacted soil indicative of a Spill/Release is discovered during field screening the lateral and vertical extent of impact will be determined with appropriate confirmation soil sampling, and Operator will expand the analyte list to include Table 915-1 contaminants of concern.
	After removal of each separator, Operator shall submit a sample from an area exhibiting the highest degree of impact, or in the absence of apparent impacts samples shall be collected from below the inlet line(s) to the separators and from below the dump lines exiting the separators for the same laboratory analysis proposed.
	If the produced water vessel on location is buried and/or partially buried, Operator will field screen a minimum four sidewall samples and one base sample in the excavation.  Operator will collect samples and provide photographs from the following locations: a. Below the dump line or beneath other ancillary piping; b. Areas of observed impact based on visual and olfactory inspection; c. Within the root zone (less than three feet from ground surface).
	During flowline abandonment, Operator shall submit soil samples from any bend in the flowline(s) in addition to the proposed sample locations for the same laboratory analysis proposed.
	In addition to the proposed site investigation activities: Operator shall visually inspect and field screen at minimum: 1) Along the four sidewall and base of each wellhead excavation, 2) Beneath the ECD 3) Along the on and/or off-location flowline(s) at a routine interval, and 4) At any other ancillary equipment not discussed if the equipment on location is removed during decommissioning activities per COGCC Rule 911.A.(4) - Oil and Gas Facility Closure Guidance Document.
	Operator has selected 'Other' - Closure Report in the Approved Reporting Schedule section of the subject form. Quarterly reporting is required until site investigation is complete. Operator shall refrain from selecting Other - Closure Report until requesting No Further Action.  In accordance with Rule 913.e.(3), Operator will adopt a quarterly reporting schedule and continue quarterly reporting until site investigation is complete and the implementation schedule can be updated.
	Operator shall update the implementation schedule in accordance with Rule 913.d on the subsequent Form 27.

7 COAs



## **Attachment Check List**

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

**Att Doc Num****Name**

403098899	FORM 27-INITIAL-SUBMITTED
403197338	SITE MAP

Total Attach: 2 Files

## **General Comments**

**User Group****Comment****Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)