

State of Colorado  
Energy & Carbon Management Commission

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403817457  
Receive Date:  
06/07/2024  
Report taken by:  
Chris Sanchez

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 ECOM 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: CITATION OIL & GAS CORP	Operator No: 17180	Phone Numbers Phone: (218) 891-1550 Mobile: (703) 702-7534
Address: 14077 CUTTEN RD		
City: HOUSTON	State: TX	Zip: 77069
Contact Person: Bob Redweik	Email: Bredweik@cogc.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35748 Initial Form 27 Document #: 403817457

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: LOCATION	Facility ID: 321600	API #: _____	County Name: CHEYENNE
Facility Name: BLEDSOE RANCH 14-30-612S50W 30SWW		Latitude: 38.968511	Longitude: -103.049017
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: SWSW	Sec: 30	Twp: 12S	Range: 50W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 486127	API #: _____	County Name: CHEYENNE
Facility Name: Bledsoe Ranch 14-30		Latitude: 38.971503	Longitude: -103.046992
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: SWSW	Sec: 30	Twp: 12S	Range: 50W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? No

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

Surface water within a mile radius of the site is present in the form of two unnamed FWS classified riverine habitats located 1,115 ft west and 1,450 ft west of the location as well as a freshwater emergent wetland habitat located 1,115 ft west of the location. The facility is located within the CPW HPHs lesser chicken estimated occupied range and is 208 ft west of the connectivity area. The facility is located within a cattle rangeland. There are no water wells or occupied buildings within a mile.

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input checked="" type="checkbox"/> Oil            | <input type="checkbox"/> Tank Bottoms                |  |
| <input type="checkbox"/> Condensate                | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> Other (as described by EPA) | _____                                  |

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	N/A	Soil Sampling

## INITIAL ACTION SUMMARY

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

During a field inspection completed by an ECMC representative, potential historically impacted soils were observed and documented. Apparent recent disturbance of the soils was noted. Site investigation activities shall be conducted within 10 days to confirm presence of impacted soils and if present, volume of impacted soil.

## 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 ):

Site investigation activities were conducted on February 27, 2024, to determine if visually darkened soils are historically impacted by previous operations. Three (3) grab soil samples (GS01 - GS03) were collected from the visually stained area at approximately 1 foot bgs and field screened for VOCs using a PID. The sample exhibiting the highest PID reading (GS02 / SS01) was submitted for laboratory analysis of the full Table 915-1 analytical suite. One background sample (BKG01) was collected 1 foot bgs upgradient and off location and was submitted for laboratory analysis of Table 915-1 metals and soil suitability constituents. Analytical results are attached to this form. Soil sample locations are displayed on the attached Soil Sample Location Map. Sample Details are included in the attached table.

### Proposed Groundwater Sampling

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

### 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 ):

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

<b>Soil</b>	<b>NA / ND</b>
Number of soil samples collected <u>    3    </u>	<u>    ND    </u> Highest concentration of TPH (mg/kg) <u>          </u>
Number of soil samples exceeding 915-1 <u>    1    </u>	<u>    --    </u> Highest concentration of SAR <u>    2.68    </u>

Was the areal and vertical extent of soil contamination delineated? No

BTEX > 915-1 No

Approximate areal extent (square feet) 10

Vertical Extent > 915-1 (in feet) 1

**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

0 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?

One background sample (BKG01) was collected 1 foot bgs upgradient and off location and was submitted for laboratory analysis of Table 915-1 metals and soil suitability constituents. Analytical results demonstrate that arsenic and barium levels are elevated in sample SS01 but are within 1.25x the concentration observed in background sample BKG01. A second background sample (BKG02) was collected on May 3, 2024, and was submitted for laboratory analysis of Table 915-1 metals and soil suitability constituents. Analytical results demonstrate that arsenic, cadmium, and selenium levels are elevated in sample BKG02.

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?

Additional laboratory analysis is pending.

**REMEDIAL ACTION PLAN**

**SOURCE REMOVAL SUMMARY**

Describe how source is to be removed.

Any hydrocarbon impacted material will be transported off-site to a licensed disposal facility in accordance with Rules 905 and 906. Source removal requirements will be determined once site investigation activities are completed.

**REMEDATION 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.

Site investigation activities were conducted on February 27, 2024, to determine if visually darkened soils are historically impacted by previous operations. Three (3) grab soil samples (GS01 - GS03) were collected from the visually stained area at approximately 1 foot bgs and field screened for VOCs using a PID. The sample exhibiting the highest PID reading (GS02 / SS01) was submitted for laboratory analysis of the full Table 915-1 analytical suite. One background sample (BKG01) was collected 1 foot bgs upgradient and off location and was submitted for laboratory analysis of Table 915-1 metals and soil suitability constituents. Analytical results demonstrate that arsenic and barium levels are elevated in sample SS01 but are within 1.25x the concentration observed in background sample BKG01. All other constituents are in compliance with Table 915-1. Additional sampling was conducted on May 3, 2024 to meet the requirements of ECMC COAs. Two samples (SS02 & SS03) were collected from the areas of former facility equipment and submitted for laboratory analysis of the full Table 915-1 analytical suite. A second background sample (BKG02) was collected and submitted for laboratory analysis of 915 metals and soil suitability constituents. Analytical results indicate that Cadmium levels in sample SS03 were above 1.25x background levels, however lab results are being re-run to confirm this exceedance as no other indicators of impacts were seen. Additionally, SAR data for these three samples have not yet been returned due to high demand of analysis from Summit Scientific laboratory. Final lab results shall be reported on a forthcoming form 27. Soil sample locations are displayed on the attached Soil Sample Location Map. Sample Details are included in the attached table. Analytical results are demonstrated on attached tables and lab reports. Photo documentation is provided for each sampling event.

**Soil Remediation Summary**

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Excavate and offsite disposal  
\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_  
\_\_\_\_\_ Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_  
\_\_\_\_\_ Excavate and onsite remediation  
\_\_\_\_\_ Land Treatment  
\_\_\_\_\_ Bioremediation (or enhanced bioremediation)  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Other \_\_\_\_\_

**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.

Citation carries general liability insurance of \$2,000,000, with excess liability insurance of \$35,000,000. Citation also carries pollution/waste liability insurance of \$20,000,000, and environmental related liability insurance of \$3,000,000 for all active wells and \$1,000,000 for all plugged and abandoned wells. Citation maintains \$1,135,000 in surety bonds with the ECMC. There is no site-specific financial assurance associated with this remediation project. Citation does not intend to file an insurance claim for this remediation project.

Operator anticipates the remaining cost for this project to be: \$ 10000 \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No \_\_\_\_\_

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 \_\_\_\_\_

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

Non-ECMC Disposal Facility: \_\_\_\_\_

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

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

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

Non-ECMC 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.

A reclamation plan will be prepared pending the outcome of the site investigation. Reclamation will be conducted in accordance with ECMC 1004 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. 02/21/2024

Actual Spill or Release date, or date of discovery. 02/21/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/27/2024

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**

SAR data for the three samples (SS02, SS03, & BKG02) collected on May 3, 2024 have not yet been returned due to high demand of analysis from Summit Scientific laboratory. Final lab results shall be reported on a forthcoming supplemental form 27.

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

Signed: Randolph Moses

Title: Agent

Submit Date: 06/07/2024

Email: randolph.moses@absarokasolutions.com

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

ECMC Approved: Chris Sanchez

Date: 06/12/2024

Remediation Project Number: 35748

**COA Type****Description**

	Operator shall notify ECMC EPS two weeks prior to the next sampling event to witness sampling.
	If encountered operator will analyze groundwater samples for Table 915-1 Groundwater Inorganic Parameters (total dissolved solids, sulfate, chloride) in addition to the Organic Compounds
	Upon approval of this Form 27 the Operator shall submit a Form 19 Supplemental requesting closure of Spill ID 486127
	Operator will continue quarterly reporting until the site investigation is complete and Full Table 915-1 standards are met within the remediation area
	Operator shall define the vertical and lateral extent of impacts to soil. Additional sampling is required to fully delineate the vertical and lateral impacts to soil
5 COAs	

**ATTACHMENT 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**

403817457	FORM 27-INITIAL-SUBMITTED
403817525	ANALYTICAL RESULTS
403817528	ANALYTICAL RESULTS
403817530	ANALYTICAL RESULTS
403817533	PHOTO DOCUMENTATION
403817537	PHOTO DOCUMENTATION
403817538	SOIL SAMPLE LOCATION MAP
403817541	SITE MAP

Total Attach: 8 Files

**General Comments****User Group****Comment****Comment Date**

		Stamp Upon Approval
--	--	---------------------

Total: 0 comment(s)