

State of Colorado  
Energy & Carbon Management Commission

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403822246  
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06/12/2024  
Report taken by:  
Krystal Heibel

Site Investigation and Remediation Workplan (Supplemental 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 ECMC 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: (281) 891-1550 Mobile: (713) 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 #: 32403 Initial Form 27 Document #: 403564174

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: Plug and abandon well

SITE INFORMATION

Yes Multiple Facilities

Facility Type: WELL	Facility ID:	API #: 075-09326	County Name: LOGAN
Facility Name: DUBOIS 5		Latitude: 40.774092	Longitude: -103.221475
		** correct Lat/Long if needed: Latitude:	Longitude:
QtrQtr: NENW	Sec: 7	Twp: 9N	Range: 52W Meridian: 6 Sensitive Area? Yes

Facility Type: LOCATION	Facility ID: 312323	API #:	County Name: LOGAN
Facility Name: DUBOIS-69N52W 7NWNE		Latitude: 40.772667	Longitude: -103.217506
		** correct Lat/Long if needed: Latitude:	Longitude:
QtrQtr: NWNE	Sec: 7	Twp: 9N	Range: 52W 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? Yes

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 is present in the form of the North Sterling Outlet Canal Riverine Habitat 550 ft south of site which wraps around the site to 1,000 ft east of site. 2 FWS wetlands classified as freshwater ponds are located 800 ft NW of site. The Northwater sterling laterals 8 - 10 branch south off of the Outlet Canal to the SE of the location. 4 wells are present within a 1/2-mile radius of the site, with the closest well being a domestic stock well approximately 1,000 ft N-NW of the site. Static WL in this well is 60 ft bgs. The nearest livestock and occupied buildings are 1,080 ft N-NW of the site. The location falls within the Mule Deer Severe Winter Range and the next nearest CPW HPH's are Aquatic Native Species Conservation Waters located 0.55 mi E & 0.72 mi W of the location.

# 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
Yes	SOILS	TBD	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.

This form serves as notification for the decommissioning of the Dubois #6 wellhead. The ground and subsurface shall be inspected for hydrocarbon impacts during equipment removal. At a minimum, soil sampling shall be conducted in the proposed locations discussed below and shown on the attached proposed soil sample location map.

## 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 ):

One (1) grab soil sample will be collected as described in the shown proposed sample location diagram. Four (4) field screening surface soil samples shall be collected in each cardinal direction surrounding the wellhead and one (1) background sample will be collected from an adjacent, upgradient location. The grab sample will be utilized for full Table 915-1 listed constituents. The background sample will be analyzed for EC, SAR, pH, boron, and metals.

### Proposed Groundwater Sampling

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

Should groundwater be encountered, a sample will be collected as soon as practical and shall be submitted for laboratory analysis of Table 915-1 Inorganic Parameters and Organic Compounds in Groundwater.

### 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 ):

Soil on location will be field screened with PID and EC probe.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

<b>Soil</b>	<b>NA / ND</b>
Number of soil samples collected <u>5</u>	ND Highest concentration of TPH (mg/kg) _____
Number of soil samples exceeding 915-1 <u>5</u>	-- Highest concentration of SAR <u>20.6</u>
Was the areal and vertical extent of soil contamination delineated? <u>No</u>	BTEX > 915-1 <u>No</u>

Approximate areal extent (square feet) 100

Vertical Extent > 915-1 (in feet) 5

**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?

One sample, APU\_BG\_01, was collected upgradient and off-location and was submitted for analysis of Table 915-1 soil suitability constituents and metals. Laboratory results indicate that Arsenic concentrations are above regulatory standards in native soils.

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 soil sampling is required to delineate impacts and a remediation plan shall be created pending receipt of lab results.

**REMEDIAL ACTION PLAN**

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? No

**SOURCE REMOVAL SUMMARY**

Describe how source is to be removed.

Pending results of the site investigation.

**REMEDIAL ACTION 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.

Remediation activities for substantial impacts, if required, will likely involve the excavation of impaired soils for transport to an approved disposal facility. Following excavation and removal of any impacted soils, confirmation sampling will be conducted to confirm successful remediation. Excavated areas will then be backfilled with clean soil as necessary and seeding of the remediated area to re-establish a proper seedbed will be conducted.

**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 ECMC Facility ID # \_\_\_\_\_

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

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

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

\_\_\_\_\_ 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 COGCC. 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: \$ \_\_\_\_\_

## 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 \_\_\_\_\_

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: \_\_\_\_\_

# REMEDIATION COMPLETION REPORT

## REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No \_\_\_\_\_

If YES:

- Compliant with Rule 913.h.(1).
- Compliant with Rule 913.h.(2).
- Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards? \_\_\_\_\_

Does the previous reply indicate consideration of background concentrations? \_\_\_\_\_

Does Groundwater meet Table 915-1 standards? \_\_\_\_\_

Is additional groundwater monitoring to be conducted? \_\_\_\_\_

Operator shall comply with the ECMC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

## 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.

Following wellhead removal activities, the location was backfilled, compacted, and re-contoured to match pre-existing conditions. The location will be reclaimed in accordance with ECMC 1000 series.

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. \_\_\_\_\_

Actual Spill or Release date, or date of discovery. 08/08/2022

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/20/2023

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 serves as the 2Q24 update for this location. Excavation and soil sampling activities are planned to be completed in summer of 2024 to delineate and remediate elevated soil suitability constituents.

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: 06/12/2024

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: Krystal Heibel

Date: 08/20/2024

Remediation Project Number: 32403

**COA Type****Description**

	Operator shall fully populate the implementation schedule in accordance with Rule 913.d on the subsequent Supplemental Form 27.
1 COA	

**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**

403822246	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
403894190	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 2 Files

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

Environmental	"This form serves as the 2Q24 update for this location. Excavation and soil sampling activities are planned to be completed in summer of 2024 to delineate and remediate elevated soil suitability constituents."	08/20/2024
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Total: 1 comment(s)