

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
404317868

Receive Date:

Report taken by:

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: FULCRUM ENERGY OPERATING LLC	Operator No: 10805	Phone Numbers	
Address: 240 SAINT PAUL STREET SUITE 502	Phone: (970) 896-5665		
City: DENVER	State: CO	Zip: 80206	Mobile: ()
Contact Person: Rikki Ross	Email: rikki.ross@fulcrumeo.com		

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 41005 Initial Form 27 Document #: 404231618

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

No Multiple Facilities

Facility Type: LOCATION	Facility ID: 467526	API #: _____	County Name: JACKSON
Facility Name: Spicer S32 Annex Pad	Latitude: 40.529551	Longitude: -106.403819	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWSW	Sec: 32	Twp: 7N	Range: 80W Meridian: 6 Sensitive Area? Yes

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

Livestock grazing (outside location fence):
Freshwater Emergent Wetlands – 935 feet to SE
Irrigation Ditch (not in use) – 664 feet to SE
Surface Water – None in 1/4 mile

The location is within Sage Grouse Priority Habitat Management

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- E&P Waste Other E&P Waste Non-E&P Waste
- Produced Water Workover Fluids
- 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
Yes	SOILS	13,200 square feet	Investigation Delineation

INITIAL ACTION SUMMARY

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

The horizontal and vertical impacts identified from the historical spill identified at the Spicer Annex pad location was delineated from 10/2/2024 to 10/14/2024.

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):

Soil samples were collected as needed to characterize and/or demonstrate confirmation of impact removal.

Proposed Groundwater Sampling

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

[Empty text box for groundwater sampling details]

Proposed Surface Water Sampling

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

[Empty text box for surface water sampling details]

Additional Investigative Actions

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

[Empty text box for additional investigative actions]

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 56

Number of soil samples exceeding 915-1 7

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 13200

NA / ND

-- Highest concentration of TPH (mg/kg) 255.2
3

-- Highest concentration of SAR 16.9

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 14

Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet)

Number of groundwater monitoring wells installed

Number of groundwater samples exceeding 915-1

Highest concentration of Benzene (µg/l)

Highest concentration of Toluene (µg/l)

Highest concentration of Ethylbenzene (µg/l)

Highest concentration of Xylene (µg/l)

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 background sample (BG-Spicer_01) was collected near the facility and analyzed for pH, SAR, EC and boron in soil per ECMC Table 915-1. The background soil sample was collected at a depth of 5 feet below ground surface (ft bgs). pH was observed to be in exceedance of the applicable Table 915-1 standards in native soil.

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

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.

Impacted soil was excavated and removed. All impacted soil from excavation was transported to an approved waste facility for disposal. Waste manifests were provided in supplemental reports.

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.

Remediation was completed 10/14/2025

Soil Remediation Summary

In Situ

Ex Situ

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

Yes _____ Excavate and offsite disposal
If Yes: Estimated Volume (Cubic Yards) _____ 680
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.

Fulcrum has a general liability insurance coverage of \$2,000,000.

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

WASTE DISPOSAL INFORMATION

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

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

None

Volume of E&P Waste (solid) in cubic yards _____ 680

E&P waste (solid) description E&P Contaminated Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Eastern Laramie County Landfill WY

Volume of E&P Waste (liquid) in barrels _____ 0

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? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? _____

Does Groundwater meet Table 915-1 standards? Yes

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.

The facility is presently in use and reclamation activities are not warranted at this time onsite.

Is the described reclamation complete? _____

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. 09/24/2024

Actual Spill or Release date, or date of discovery. 09/24/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/24/2024

Proposed site investigation commencement. 09/24/2024

Proposed completion of site investigation. 10/14/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/30/2024

Proposed date of completion of Remediation. 10/14/2024

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

Fulcrum is resubmitting this Form 27 Supplemental Report as a response to the Form 19 Supplemental Report (Doc#403990753) and Form 27 Initial (Doc#404231618) COAs:

- Further background characterization for arsenic and SAR.
- Site maps showing excavation size and depths.

An additional 8 background samples were collected, 4 samples from 4, 8, 12, & 16 feet below ground service, at 2 separate locations (BG-01, BG-02). Background sample information is provided in Attachment A, B, C & P. Updated sample site maps have been provided in Attachment A.

For convenience, all information provided on the Form 19 Supplemental Report (Doc#403990753) closure request is provided with the requested updates.

Fulcrum Energy Operating respectfully requests closure of remediation project #41005.

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

Signed: Joel Mason

Title: Agent

Submit Date: _____

Email: joel.mason@absarokasolutions.com

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

ECMC Approved: _____

Date: _____

Remediation Project Number: 41005

COA Type

Description

0 COA	
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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

404317885	OTHER
404317886	ANALYTICAL DATA SUMMARY TABLE(S)
404317888	ANALYTICAL RESULTS
404317889	ANALYTICAL RESULTS
404317890	ANALYTICAL RESULTS
404317891	ANALYTICAL RESULTS
404317892	ANALYTICAL RESULTS
404317893	ANALYTICAL RESULTS
404317894	ANALYTICAL RESULTS
404317895	ANALYTICAL RESULTS
404317896	ANALYTICAL RESULTS
404317898	ANALYTICAL RESULTS
404317900	ANALYTICAL RESULTS
404317902	ANALYTICAL RESULTS
404317903	DISPOSAL MANIFESTS
404317905	OTHER
404318089	SITE MAP
404318090	ANALYTICAL RESULTS

Total Attach: 18 Files

General Comments

User Group

Comment

Comment Date

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)