

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404440342
Receive Date:
11/18/2025

Report taken by:
Chris Sanchez

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: <u>MURFIN DRILLING COMPANY INC</u>	Operator No: <u>61650</u>	Phone Numbers Phone: <u>(316) 858-8664</u> Mobile: <u>()</u>
Address: <u>250 N WATER ST STE 300</u>		
City: <u>WICHITA</u>	State: <u>KS</u>	Zip: <u>67202</u>
Contact Person: <u>Cristina Goodrich</u>	Email: <u>cgoodrich@murfininc.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 41037 Initial Form 27 Document #: 404229767

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>WELL</u>	Facility ID: _____	API #: <u>009-06514</u>	County Name: <u>BACA</u>
Facility Name: <u>S.E. CAMPO UNIT 1102</u>	Latitude: <u>37.026762</u>	Longitude: <u>-102.545865</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SENE</u>	Sec: <u>1</u>	Twp: <u>35S</u>	Range: <u>46W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>LOCATION</u>	Facility ID: <u>321129</u>	API #: _____	County Name: <u>BACA</u>
Facility Name: <u>S.E. CAMPO UNIT-635S46W 1SENE</u>	Latitude: <u>37.026762</u>	Longitude: <u>-102.545865</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SENE</u>	Sec: <u>1</u>	Twp: <u>35S</u>	Range: <u>46W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

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? No

Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

Within Comanche National Grassland, within Lesser Prairie Chicken Connectivity Area High Priority Habitat and Lesser Prairie Chicken Estimated Occupied Range High Priority Habitat

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	GROUNDWATER	TBD	lab analysis if encountered
No	SOILS	TBD	lab analysis

INITIAL ACTION SUMMARY

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

On 8/28/25, initial assessment of the wellhead cut/cap was completed per approved IF27 document number 404229767. Grab soil samples were collected from the N-E-S-W sides and the floor of the of the wellhead cut/cap excavation and field screened using a PID. There were no potential impacts observed from visual, olfactory, and PID screening. Only the floor soil sample was submitted to Origins Laboratory in Denver, Colorado for full ECMC Table 915-1 analysis. All TPH and Organics results were non-detect in the floor sample, confirming the absence of petroleum hydrocarbon impacts. Cadmium and Lead concentrations in the floor soil sample were slightly elevated above respective Table 915-1 Protection of Groundwater Soil Screening Level limits, but well under respective Residential Soil Screening Level limits.

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):

Initial assessment of the flowline per approved IF27 document number 404229767. The United States Forest Service (USFS) has directed Murfin to put an indefinite hold on all offsite flowline assessment ground disturbance in the Campo Field within Comanche National Grassland until further notice while they review previous archeological surveys. Murfin has not been granted USFS permission to do the offsite flowline assessment per approved IF27 document number 404229767. It is unknown at this time when USFS permission will be granted.

Proposed Groundwater Sampling

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

Per approved IF27 404229767.

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

Soil

NA / ND

Number of soil samples collected 1

Number of soil samples exceeding 915-1 0

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

Approximate areal extent (square feet) 0

ND Highest concentration of TPH (mg/kg) _____

-- Highest concentration of SAR 18.8

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 0

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?

Per email correspondence with Chris Sanchez of ECMC on 5/16/25, ECMC will consider a Campo Field master background table and figure for local cleanup level comparison for Murfin's Campo field since all locations are relatively close in the same USFS Comanche National Grasslands. See attached Figure 3 and Table 6. Laboratory analytical reports for all Campo Field grab background soil samples collected to-date are attached to this form.

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?

See Proposed Sampling Plan.

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.

Well has been P&A'd.

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.

NA

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
_____ Other _____

_____ 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.

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.

Reclamation will be completed in accordance with ECMC 1000 Series Rules or as agreed upon with the Surface Owner.

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. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). _____

Proposed site investigation commencement. 09/01/2025

Proposed completion of site investigation. 02/28/2026

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

All TPH and Organics results were non-detect in the floor sample, confirming the absence of petroleum hydrocarbon impacts. Water well documents available on Colorado Division of Water Resources online database for water well receipt number 9072875 approximately 1,335' NW from the wellhead state a static groundwater level of 120' bgs. Per ECMC Rule 915.a., operators will adhere to the concentrations for soil cleanup in Table 915-1. Operators will use Residential Soil Screening Level Concentrations as cleanup levels.

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

Signed: David Castro

Title: Senior Project Scientist

Submit Date: 11/18/2025

Email: dcastro@eagle-enviro.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: 05/08/2026

Remediation Project Number: 41037

COA Type**Description**

	ECMC acknowledges the Operators request for Residential SSL and does not approve at this time. Operator shall assess the flowline prior to requesting Residential SSL.
	Operator shall continue Quarterly Reporting until the Site Assessment is completed, and the remediation area demonstrates Compliance with Full Table 915-1 Standards.
	Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.
	Analytical data from background sample BG-02@3' and BG-02@4' @ Latitude 37.03035, Longitude -102.57220, does not appear to be representative of background conditions near the production facility. Operator shall provide justification for the use of BG-02@3' and BG-02@4' @ Latitude 37.03035, Longitude -102.57220 for their site-specific background determination.
	Operator shall reassess pH and SAR values.
4 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**

404440342	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404440451	SITE INVESTIGATION REPORT
404440452	LABORATORY ANALYTICAL REPORT
404440453	LABORATORY ANALYTICAL REPORT
404440455	LABORATORY ANALYTICAL REPORT
404440456	LABORATORY ANALYTICAL REPORT
404440457	LABORATORY ANALYTICAL REPORT
404440458	LABORATORY ANALYTICAL REPORT
404440460	LABORATORY ANALYTICAL REPORT
404440461	LABORATORY ANALYTICAL REPORT
404440462	LABORATORY ANALYTICAL REPORT
404440464	LABORATORY ANALYTICAL REPORT
404440466	MAP
404440469	SOIL SAMPLE LOCATION MAP
404440470	SOIL SAMPLE LOCATION MAP
404440471	PHOTO DOCUMENTATION

404440472	SITE INVESTIGATION REPORT
404440473	ANALYTICAL DATA SUMMARY TABLE(S)
404440474	ANALYTICAL DATA SUMMARY TABLE(S)
404440475	ANALYTICAL DATA SUMMARY TABLE(S)
404440477	ANALYTICAL DATA SUMMARY TABLE(S)
404440479	ANALYTICAL DATA SUMMARY TABLE(S)
404440481	LABORATORY ANALYTICAL REPORT
404440483	LABORATORY ANALYTICAL REPORT
404440484	LABORATORY ANALYTICAL REPORT
404652519	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 26 Files

General Comments

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

Total: 0 comment(s)