

State of Colorado
Energy & Carbon Management Commission

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Document Number:
403922892
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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 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 #: 37141 Initial Form 27 Document #: 403922892

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>009-06483</u>	County Name: <u>BACA</u>
Facility Name: <u>S.E. CAMPO UNIT 602</u>	Latitude: <u>37.028210</u>	Longitude: <u>-102.555361</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SENEW</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>321110</u>	API #: _____	County Name: <u>BACA</u>
Facility Name: <u>S.E. CAMPO UNIT-635S46W 1SENEW</u>	Latitude: <u>37.028210</u>	Longitude: <u>-102.555361</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SENEW</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 Lesser Prairie Chicken Estimated Occupied Range, within Lesser Prairie Chicken Connectivity Area

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	NA	lab analysis if encountered
UNDETERMINED	SOILS	NA	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.

A site assessment will be conducted pursuant to ECMC rule 911 at the SE CAMPO UNIT 602 wellhead cut & cap and its associated offsite flowline to be abandoned in place.

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):

A grab soil sample will be collected from the floor of the excavation or the area showing the highest degree of impact during field screening activities at the wellhead cut & cap excavation. Additionally, soil samples will be field screened at the N-E-S-W sidewalls of the wellhead excavation. If impacts are not apparent from visual, olfactory, and PID screening, the floor soil sample will be analyzed by a certified laboratory for full ECMC Table 915-1. If there are any apparent potential impacts, grab soil samples from those locations will be collected and analyzed for full ECMC Table 915-1. Grab background soil samples will be collected from outside of the location perimeter at similar depths and analyzed for ECMC Table 915-1 Soil Suitability for Reclamation and Metals. All samples collected will be analyzed by a certified laboratory using approved ECMC 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 site assessment, a grab groundwater sample will be collected and analyzed for ECMC Table 915-1 Organic Compounds in Groundwater and Groundwater Inorganic Parameters.

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 flowline will occur during assessment activities. Field staff will use a PID to field screen grab soil samples a minimum of every 250' adjacent to the flowline to determine if laboratory analysis is required. If there are any apparent potential impacts, the soil samples from those locations will be submitted for full Table 915- 1 analysis. Grab soil samples will be collected from the change in direction and flowline manifold to be submitted for full Table 915-1 analysis. The ECMC Wellhead and Flowline Closure Checklists will be completed during the assessment. A photolog will be submitted on a Subsequent Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 0

Highest concentration of TPH (mg/kg)

Number of soil samples exceeding 915-1

Highest concentration of SAR

Was the areal and vertical extent of soil contamination delineated?

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?

[Empty text box for impacts to adjacent property]

Were background samples collected as part of this site investigation?

[Empty text box for background samples]

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?

[Empty text box for further site investigation]

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Well is to be P&A'd.

REMEDIAL 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

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.

Murfin is adequately bonded as shown by submitted Form 3A Doc: 403418364 and has General Liability insurance.

Operator anticipates the remaining cost for this project to be: \$ 5000 _____

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.

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. 11/01/2024 _____

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

Form 44 document number 403634225 is related to this form.

Water well documents available on Colorado Division of Water Resources online database for water well receipt number 9072875 approximately 1,640' E 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: 09/16/2024

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: 10/02/2024

Remediation Project Number: 37141

COA Type**Description**

	Operator shall analyze soil samples for complete Table 915-1 Contaminants of Concern until Operator has submitted sufficient characterization data to request and receive Director Approval of reduced list of contaminants of concern.
	Operator shall fully populate the implementation schedule in accordance with Rule 913.d on the subsequent Supplemental Form 27.
	ECMC acknowledges the Operators request for Residential SSL and does not approve at this time. Due to the close proximity to a riverine identified in the National Wetlands Inventory (USFWS) (INT), Operator shall continue to utilize Protection of Groundwater SSL.
	Operator will submit a sample from an area of the well excavation exhibiting the highest degree of impact, or in the absence of apparent impacts, Operator will submit a sample from the base of the excavation adjacent to the Well along with photo logs of the excavation and surface areas.
	Operators will collect and submit for laboratory analysis a soil sample collected from the areas most likely to have been impacted during the operational life of the flowline. These areas include, but are not limited to: where Flowlines connect to the wellhead, surface equipment, risers, valves, or manifolds; where Flowlines bend or were repaired in the past and at joints and hammer unions; where Flowlines connect to Flowlines or equipment of different material; and where Flowlines crossed drainages or surface water or are in contact with shallow groundwater.
	Approval of this Form 27 does not imply approval of pre-abandonment in place notice required by Rule 1105.d.(2). for Flowline abandonment. Operator shall submit a Form 44 Pre-abandonment notice pursuant to Rule 1105.d.A Form 44 will be filed prior to starting flowline abandonment, and will be included in the Related Forms in a supplemental Form 27. Abandonment will occur per the requirements of Rule 1105. During flowline abandonment, any liquids evacuated from the flowline will be contained and disposed per the requirements of Rule 905. Attached Form 44 is for Flowline realignment, Operator shall supply a Pre-abandonment notice in the form of a Form 44 per Rule 1105.d.(3).

6 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**

403922892	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
403922944	MAP

403922945	SITE INVESTIGATION PLAN
403922947	SITE INVESTIGATION PLAN
403943620	FORM 27-INITIAL-SUBMITTED

Total Attach: 5 Files

General Comments

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

Total: 0 comment(s)