

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:
404077047
Receive Date:
01/31/2025

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>WESTERN OPERATING COMPANY</u>	Operator No: <u>95620</u>	Phone Numbers
Address: <u>1165 DELAWARE STREET #200</u>	Phone: <u>(303) 893-2438</u>	
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80204</u>	Mobile: <u>()</u>	
Contact Person: <u>Steve James</u>	Email: <u>steve@westernoperating.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37449 Initial Form 27 Document #: 403783354

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>LOCATION</u>	Facility ID: <u>324792</u>	API #: _____	County Name: <u>KIOWA</u>
Facility Name: <u>PYLES, BERTHA-619S45W 10NESW</u>	Latitude: <u>38.416972</u>	Longitude: <u>-102.448024</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>19S</u>	Range: <u>45W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>485862</u>	API #: _____	County Name: <u>KIOWA</u>
Facility Name: <u>Bertha Pyles #2 PW Spill</u>	Latitude: <u>38.416868</u>	Longitude: <u>-102.448000</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>19S</u>	Range: <u>45W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SC _____

Most Sensitive Adjacent Land Use Surface water
located 3,000
feet southeast _____

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

Located within a Colorado Parks and Wildlife designated 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 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	2500 linear feet	Laboratory analytical

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 January 14, 2024, approximately 240 barrels (bbl) of produced water was released outside the containment. The produced water impacted county road east of the site. Approximately 220 bbls of produced water was recovered. The release was stopped/controlled and is being remediated.

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):

On April 10, 2024, a total of 10 soil samples were collected from the observed extents of the release. The soil samples were analyzed for ECMC full list 915-1 parameters. Soil sample SS01@5' had a TPH concentration above the ECMC standard and all other soil samples had organic compounds below Table 915-1 standards. One or more soil suitability parameter (pH, EC, SAR, and Boron) exceeded the ECMC standards in each of the soil samples collected. Arsenic was observed above ECMC standards and background concentrations in SS05@0.5', SS06@0.5', and SS14@0.5'. Barium was above ECMC standards and background concentrations in SS05@0.5' and SS06@0.5' and Chromium was above ECMC standards and background concentrations in SS05@0.5'. On January 28, 2025, additional soil samples were collected to assess the extent of impacts associated with this release. The January 28, 2025 analytical results will be provided in a subsequent Form 27.

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

Soil	NA / ND
Number of soil samples collected <u>19</u>	-- Highest concentration of TPH (mg/kg) <u>1862</u>
Number of soil samples exceeding 915-1 <u>11</u>	-- Highest concentration of SAR <u>22.7</u>

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

BTEX > 915-1 No

Approximate areal extent (square feet) 5000

Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0

NA Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No

NA Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

NA Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____

NA Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

NA 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?

Impacts were identified along County Road 58.5 east of the release location.

Were background samples collected as part of this site investigation?

Background samples from remediation ID 34392 were used for this location. Additional background samples were collected including samples from the road base material on County Road 58.5. Additional background samples will be collected to compare to current soil suitability results and metals results from the release area.

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 samples will be collected following excavation of impacted material around SS05@5'.

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.

The impacted soil was excavated to 0.5 feet bgs.

REMEDICATION 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.

Additional soil was excavated around SS05@5' to remediate TPH impacts and a confirmation sample was collected on January 28, 2025. The analytical results will be reported on a subsequent Form 27. Additional excavation may be completed along the access road and County Road 58.5 following evaluation of additional background data to be collected.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) 42

_____ Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Natural Attenuation

No Excavate and onsite remediation

_____ Other _____

Land Treatment

_____ Bioremediation (or enhanced bioremediation)
_____ Chemical oxidation
_____ Other _____

Groundwater Remediation Summary

No _____ Bioremediation (or enhanced bioremediation)
No _____ Chemical oxidation
No _____ Air sparge / Soil vapor extraction
No _____ Natural Attenuation
No _____ 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 Remediation Update

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.

Operator anticipates the remaining cost for this project to be: \$ 15000

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:

Volume of E&P Waste (solid) in cubic yards 42

E&P waste (solid) description Oil and produced water impacted water

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Otero County Landfill

Volume of E&P Waste (liquid) in barrels 250

E&P waste (liquid) description Oil and Produced water

ECMC Disposal Facility ID #, if applicable: 212608

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.

Location will be reclaimed in accordance with 1000 series rules following remediation.

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. 01/14/2024

Actual Spill or Release date, or date of discovery. 01/14/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/14/2024

Proposed site investigation commencement. 01/14/2024

Proposed completion of site investigation. 06/30/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/14/2024

Proposed date of completion of Remediation. 06/30/2025

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

--

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

Signed: Steve James

Title: President

Submit Date: 01/31/2025

Email: steve@westernoperating.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: 07/01/2025

Remediation Project Number: 37449

COA Type**Description**

	Native soil samples "BG01 @0.5", "BG02@0.5", "BG03@0.5", and "BG04@0.5" document SAR and pH exceedances above the Table 915-1 cleanup concentrations. The background soil sample locations are near the well pad, indicating potential E&P impacts from oil and gas operations. The Operator shall conduct an environmental investigation at these areas by collecting additional analytical data for the background samples (Native BG01 @0.5', BG02@0.5', BG 03@0.5', and BG04@0.5') for full Table 915-1 contaminants of concern.
	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 Operator shall collect confirmation soil samples for Full Table 915-1 Contaminants of Concern
	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.
	Q-2 quarterly report was due May 1, 2025, Q-2 report is 61 days late as of 7/1/2025, Operator shall
	ECMC updated Facility ID 324792 to reflect Location, not spill or release. Going forward the Operator shall assure the correct facility designation is utilized.
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
404077047	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404077112	SOIL SAMPLE LOCATION MAP
404077116	ANALYTICAL RESULTS
404264098	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)