

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:  
404439274  
Receive Date:  
11/18/2025  
Report taken by:  
Grace Rollins

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>KERR MCGEE OIL &amp; GAS ONSHORE LP</u>	Operator No: <u>47120</u>	<b>Phone Numbers</b>
Address: <u>P O BOX 173779</u>		Phone: <u>(720) 929-4306</u>
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80217-3779</u>
Contact Person: <u>Erik Mickelson</u>	Email: <u>Erik_Mickelson@oxy.com</u>	Mobile: <u>( )</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 21210 Initial Form 27 Document #: 402898266

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>123-25348</u>	County Name: <u>WELD</u>
Facility Name: <u>ROLAND X 28-3</u>	Latitude: <u>40.114965</u>	Longitude: <u>-104.671318</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NENW</u>	Sec: <u>28</u>	Twp: <u>2N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>FLOWLINE</u>	Facility ID: <u>480679</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Roland X 28-3 &amp; 28-4 battery</u>	Latitude: <u>40.116506</u>	Longitude: <u>-104.675791</u>	
** correct Lat/Long if needed: Latitude: <u>40.116583</u>		Longitude: <u>-104.675541</u>	
QtrQtr: <u>NWNW</u>	Sec: <u>28</u>	Twp: <u>2N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: SPILL OR RELEASE Facility ID: 481497 API #: \_\_\_\_\_ County Name: WELD  
Facility Name: Roland X 28-3 Wellhead Release Latitude: 40.114965 Longitude: -104.671335  
\*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
QtrQtr: NENW Sec: 28 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 491268 API #: \_\_\_\_\_ County Name: WELD  
Facility Name: Roland X 28-3 Wellhead Latitude: 40.114948 Longitude: -104.671606  
\*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
QtrQtr: NENW Sec: 28 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

### **SITE CONDITIONS**

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Crop land  
Is domestic water well within 1/4 mile? Yes Is surface water within 1/4 mile? No  
Is groundwater less than 20 feet below ground surface? Yes

#### **Other Potential Receptors within 1/4 mile**

Multiple buildings are located within 1/4 mile of the wellhead.  
The nearest building is located approximately 1,260 feet northeast of the wellhead.  
The nearest domestic water well is located approximately 800 feet northwest of the wellhead.

# 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	TBD	Inspection/soil samples/laboratory analytical results

## INITIAL ACTION SUMMARY

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

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of KMOG. Sodium adsorption ratio (SAR) in sample WH-B01@6' was altered by a third-party from 8.82 to 8.52. SAR in background sample WH-BG02@6' was altered by a third party from 8.52 to 8.82. The location in which WH-B01@6' was collected was over-excavated to 8 ft bgs. Following excavation, sample WH-B02@8' was collected but not analyzed for SAR. In response, one verification sample (WH-B02RS@8) and four background samples (BG01@8, BG02@8, BG03@8, BG04@8) were collected on December 15, 2024. The analytical result of the resample WHB02RS@8 was a SAR of 3.83. The verification sample result was in compliance with the cleanup concentration in Table 915-1. Elevated PID screening levels and SAR were detected at background sample BG02@8. Per the general comments issued by the ECMC for denied Form 27 Document No. 404069505, additional soil investigation was conducted at the location of background sample BG02@8 and confirmed the presence of impacts. As such, a Form 19 Initial Spill/Release report (Document No. 404330414) was submitted on August 28, 2025 and the ECMC issued Spill/Release Point ID 491268. The soil sample locations are depicted on Figure 1.

Assessment activities are ongoing and will be summarized in a subsequent Form 27 report.

The analytical data altered by a third-party without the knowledge of and beyond the reasonable control of KMOG can be found in Form 27 Document No. 403025120. The original unaltered lab report and the reassessment analytical results are attached. The original sample results and the reassessment sample results are provided in Table 1. A topographic Site Location Map is provided as Figure 1. The reassessment sample locations are provided on Figure 2.

## 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 ):

Between August 7 and November 7, 2025, excavation activities were conducted to address the remaining soil impacts at the BG02@8 location. Confirmation soil samples were collected from the base and sidewalls of the final extents of the excavation at depths of 10 and 8 ft bgs, respectively. Laboratory analytical results for the samples collected on November 7, 2025, including background sample results to verify inorganic compliance, are pending. The PID readings and soil sample analytical results are summarized in Tables 1 and 2, respectively. The laboratory analytical reports are attached.

### 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

Number of soil samples collected 24

Number of soil samples exceeding 915-1 9

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

Approximate areal extent (square feet) 360

### NA / ND

-- Highest concentration of TPH (mg/kg) 3477

-- Highest concentration of SAR 8.52

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 10

### 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?

Twelve background soil samples (NATIVE-BG01@5' through NATIVE-BG06@5' and NATIVE-BG01@10' through NATIVE-BG06@10') were collected from the native material outside of the excavation areas. The background samples were submitted for analysis of electrical conductivity (EC), SAR, pH, boron, and Table 915-1 metals, using ECOMC-approved methods. Laboratory analytical results for the background samples are pending. Once the final results have been received, they will be submitted in a subsequent Form 27 Supplemental report. The background soil sample locations are depicted on Figure 1. The background soil sample analytical results are summarized in Table 2.

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?

Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

## 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.

Between January 26 and March 15, 2022, approximately 70 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling. The excavation area was subsequently backfilled and contoured to match pre-existing site conditions.

Impacted soil from the BG02 excavation will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of excavation activities. Disposal records will be kept on file and available upon request. The excavation area will be backfilled and contoured to match pre-existing conditions.

## 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.

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of KMOG. SAR in sample WH-B01@6' was altered by a third-party from 8.82 to 8.52. SAR in background sample WH-BG02@6' was altered by a third party from 8.52 to 8.82. The location in which WH-B01@6' was collected was over-excavated to 8 ft bgs. Following excavation, sample WHB02@8' was collected but not analyzed for SAR. In response, one verification sample (WH-B02RS@8) and four background samples (BG01@8, BG02@8, BG03@8, BG04@8) were collected on December 15, 2024. The analytical result of the resample WH-B02RS@8 was a SAR of 3.83. The verification sample result was in compliance with the cleanup concentration in Table 915-1. Elevated PID screening levels and SAR were detected at background sample BG02@8. Per the general comments issued by the ECMC for denied Form 27 Document No. 404069505, additional soil investigation was conducted at the location of background sample BG02@8 and confirmed the presence of impacts. Excavation activities were conducted and soil samples were collected from the base and sidewalls of the final extents of the excavation at depths of 10 and 8 ft bgs, respectively. Laboratory analytical results for the samples collected on November 7, 2025, including background sample results to verify inorganic compliance, are pending. Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

**Soil Remediation Summary**

<input type="checkbox"/> <b>In Situ</b> _____ Bioremediation ( or enhanced bioremediation ) _____ Chemical oxidation _____ Air sparge / Soil vapor extraction _____ Natural Attenuation _____ Other _____	<input checked="" type="checkbox"/> <b>Ex Situ</b> Yes    Excavate and offsite disposal _____ If Yes: Estimated Volume (Cubic Yards) <u>70</u> _____ Name of Licensed Disposal Facility or ECMC Facility ID # <u>149007</u> No    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.

KMOG has sufficient insurance and bonding to fully address the anticipated costs of Remediation, including the remaining estimated costs for this project. KMOG currently has over 40 million in bonds with the Colorado Energy and Carbon Management Commission. The cost for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. KMOG makes no representation or guarantees as to the accuracy of the preliminary estimate.

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

## 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:

Approximately 70 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling.

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_ 70

E&P waste (solid) description \_\_\_\_\_ Impacted soil \_\_\_\_\_

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_ 149007

Non-ECMC Disposal Facility: \_\_\_\_\_

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? 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.

The site will be reclaimed in accordance with ECMC 1000 Series Reclamation Rules.

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. 01/28/2022

Actual Spill or Release date, or date of discovery. 01/27/2022

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/26/2022

Proposed site investigation commencement. 01/26/2022

Proposed completion of site investigation. 02/09/2026

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/26/2022

Proposed date of completion of Remediation. 02/09/2026

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

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of KMOG. SAR in sample WH-B01@6' was altered by a third-party from 8.82 to 8.52. SAR in background sample WH-BG02@6' was altered by a third party from 8.52 to 8.82. The location in which WH-B01@6' was collected was over-excavated to 8 ft bgs. Following excavation, sample WH-B02@8' was collected but not analyzed for SAR. In response, one verification sample (WH-B02RS@8) and four background samples (BG01@8, BG02@8, BG03@8, BG04@8) were collected on December 15, 2024. The analytical result of the resample WHB02RS@8 was a SAR of 3.83. The verification sample result was in compliance with the cleanup concentration in Table 915-1. Elevated PID screening levels and SAR were detected at background sample BG02@8. Per the general comments issued by the ECMC for denied Form 27 Document No. 404069505, additional soil investigation was conducted at the location of background sample BG02@8 and confirmed the presence of impacts. Excavation activities were conducted and soil samples were collected from the base and sidewalls of the final extents of the excavation at depths of 10 and 8 ft bgs, respectively. Laboratory analytical results for the samples collected on November 7, 2025, including background sample results to verify inorganic compliance, are pending. Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

A lab report, figure, and analytical table altered by a third-party without the knowledge of and beyond the reasonable control of KMOG were originally submitted to the ECMC in Form 27 Document Number 403025120 submitted on 04/26/2022. The original unaltered lab report, the reassessment analytical results, and reassessment sample locations can be found in Form 27 Document No. 404152533.

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

Signed: Erik Mickelson

Title: Environmental Lead

Submit Date: 11/18/2025

Email: Erik\_Mickelson@oxy.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: Grace Rollins

Date: 01/07/2026

Remediation Project Number: 21210

## COA Type

## Description

	Operator shall provide a consolidated set of analytical data summary tables and figures which include all soil samples collected to date on the subsequent Supplemental Form 27. Operator shall continue to identify and highlight in text, tables, and figures the previously altered data and include unaltered original lab reports, as well as document the resampling results, and shall continue to differentiate through formatting of analytical data summary tables and figures which samples remain in situ vs. which have been remediated.
	Per the COA on Form 27 Document # 404152533, approved on 09/02/2025: "Operator shall provide all laboratory analytical report(s) as a stand-alone attachment(s) via Supplemental Form 27. The Laboratory Report PDF(s) must be secured by the issuing laboratory; If there is a difference between the creation date and secured date of the PDF, Operator shall provide an explanation in the case narrative of the associated report.  Note: A secured version of the lab report with soil samples WH-B02@8', WH-N02@6', WH-W02@6' collected on 3/15/2022 (Origins Project #Y203386-01) has not been provided to date."  This COA remains applicable and outstanding. Operator shall provide the laboratory analytical report on the subsequent Supplemental Form 27.
	All ongoing/unaddressed comments/COAs from previous Forms remain applicable.
3 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
404439274	FORM 27-SUPPLEMENTAL-SUBMITTED
404439333	LABORATORY ANALYTICAL REPORT
404439335	LABORATORY ANALYTICAL REPORT
404439337	SOIL SAMPLE LOCATION MAP
404439660	ANALYTICAL DATA SUMMARY TABLE(S)

Total Attach: 5 Files

Date Run: 1/7/2026 Doc [#404439274]

Page 8 of 9

## General Comments

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

Total: 0 comment(s)