

State of Colorado  
Energy & Carbon Management Commission

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

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35182 Initial Form 27 Document #: 403700208

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: WELL	Facility ID: _____	API #: 123-24729	County Name: WELD
Facility Name: MILLER 11-31	Latitude: 40.093260	Longitude: -104.708903	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESW	Sec: 31	Twp: 2N	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 487945	API #: _____	County Name: WELD
Facility Name: Miller 11-31 Wellhead	Latitude: 40.093250	Longitude: -104.708910	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESW	Sec: 31	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? No

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**

Domestic water well: none  
Surface water: none  
Wetland: none  
Spring: none  
Livestock: none  
Occupied Building: none  
High Priority Habitats: none

**DENIED**

# 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
No	GROUNDWATER	Groundwater not encountered	Groundwater samples/laboratory analytical results
Yes	SOILS	14' (N-S) x 11' (E-W) x 14' bgs	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.

Wellhead cut and cap operations and flowline removal activities were completed at the Miller 11-31 wellhead on July 30 through September 9, 2024. Groundwater was not encountered in the wellhead cut and cap excavation area or flowline removal pothole excavation areas. Visual inspection and field screening of soils around the well, associated pumping equipment, and flowline removal potholes was conducted following wellhead cut and cap operations and flowline removal activities and soil samples (WH-B01@6', FL-B01@4', FL-B12@4' and FL-B20@4') were submitted for laboratory analysis of Table 915-1 contaminants of concern to determine if a release occurred. Initial laboratory analytical results indicated that the pH concentration in soil samples WH-B01@6' and FL-B01@4' exceeded the applicable ECOM Table 915-1 standards and background limits, which was confirmed by verification soil samples WH-B01-01@6' and FL-B01-01@4' (submitted for laboratory analysis of pH only). As such, a Form 19-Initial/Supplemental Spill/Release Report (ECMC Document No. 403912618) was submitted on September 19, 2024, and the ECMC issued Spill/Release Point ID 487945. A topographic Site Location Map showing the geographic setting of the site location is provided as Figure 1. Soil sample location and field screening data is presented in Table 1. The soil sample and field screening locations are illustrated on Figures 2 through 4. The secured laboratory analytical reports are attached. The field notes and a photographic log are provided as Attachment A.

## 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 11/1/24 and 12/17/25, excavation activities were conducted to address the soil impacts at the former wellhead location (WH-B01@6', FL-B01@4') and 10 confirmation soil samples were collected from the sidewalls and base of the final excavation extent, at depths ranging from 4' to 14' below ground surface (bgs). The confirmation soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite. Final analytical results indicated that the soil samples collected from the final excavation extent were within Table 915-1 standards and/or within background limits. The soil analytical results are summarized in Tables 2 through 5.

### Proposed Groundwater Sampling

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

Groundwater was not encountered during wellhead cut and cap operations, flowline removal activities, or subsequent over-excavation activities.

### 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 ):

On July 30 through September 9, 2024, visual inspection and field screening of soils was conducted at 4 sidewall locations within the cut and cap excavation area, 4 locations at the ground surface adjacent to the excavation, and 19 flowline removal potholes. Based on the inspection and screening results, hydrocarbon impacted soil was not observed at the screening locations, and no soil samples were submitted for laboratory analysis from these areas in accordance with the ECMC Operator Guidance. On August 5, 2024, a soil gas survey was conducted at 5 soil vapor points (SVP-01 - SVP-05) installed adjacent to the former wellhead location following cut and cap operations. GEM 5000 field readings were non-detect for methane at all 5 soil vapor points. SVP locations are illustrated on Figure 2 and SVP screening results are presented in Table 6.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 24

Number of soil samples exceeding 915-1 18

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

Approximate areal extent (square feet) 154

### NA / ND

-- Highest concentration of TPH (mg/kg) 0.302

-- Highest concentration of SAR 7.52

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?

Background soil samples WH-BG01 - WH-BG09 were collected from non-impacted native material (Vona loamy sand) adjacent to the wellhead cut and cap excavation area at depths ranging from approximately 3'-10' bgs. Background soil samples from the associated Miller Jimmie E 1 facility (located approximately 1400' SE, collected from similar depths, land use, and soil type (Vona loamy sand)) have also been included. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters and ECMC Table 915-1 Metals using standard methods appropriate for detecting target analytes in Table 915-1. Analytical results for the background soil samples are presented in Tables 3 and 5. The background sample locations are illustrated on Figures 5-7.

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.

Between 11/1/24 and 12/17/25, approximately 90 cubic yards of impacted soil was excavated and transported to the Buffalo Ridge Landfill located in Keenesburg, Colorado for disposal. The excavation area will be backfilled and contoured to match pre-existing conditions.

### 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.

Laboratory analytical results indicated that constituent concentrations in the confirmation soil samples collected from the final excavation extent were in compliance with the applicable ECMC Table 915-1 standards and/or within background limits. Groundwater was not encountered during decommissioning or excavation activities. Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further activities are required. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

### Soil Remediation Summary

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 90

\_\_\_\_\_ 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

\_\_\_\_\_ 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 NFA Request

## 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 Energy & 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: \$ 0

## 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:

N/A

Volume of E&P Waste (solid) in cubic yards 90

E&P waste (solid) description impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Buffalo Ridge Landfill in Keenesburg, CO

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? Yes

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 reseeded 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. Timeliness of reclamation initiation and completion will be subject to NFA, surface owner discretion and land use, and suitable ground conditions which allow for execution of surface reclamation activities so as to not cause unwarranted damages.

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? Yes

If YES, does the seed mix comply with local soil conservation district recommendations? Yes

Did the local soil conservation district provide the seed mix? No

### SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 03/04/2025

Proposed date of completion of Reclamation. 03/04/2026

## 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. 01/25/2024

Actual Spill or Release date, or date of discovery. 09/06/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/30/2024

Proposed site investigation commencement. 07/30/2024

Proposed completion of site investigation. 02/13/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/06/2024

Proposed date of completion of Remediation. 02/13/2025

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**

In response to the COA on the previous Form 27-Supplemental (Document #403992086), secured laboratory reports are attached.

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: 04/24/2025 \_\_\_\_\_

Email: DJRemediation\_Forms@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: \_\_\_\_\_

Date: \_\_\_\_\_

Remediation Project Number: 35182 \_\_\_\_\_

**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.

<b>Att Doc Num</b>	<b>Name</b>
404106214	FORM 27-SUPPLEMENTAL-SUBMITTED
404110233	PHOTO DOCUMENTATION
404110234	SITE MAP
404110235	SOIL SAMPLE LOCATION MAP
404110236	SOIL SAMPLE LOCATION MAP
404110238	SOIL SAMPLE LOCATION MAP
404110240	SOIL SAMPLE LOCATION MAP
404110247	SOIL SAMPLE LOCATION MAP
404110248	SOIL SAMPLE LOCATION MAP
404110249	LABORATORY ANALYTICAL REPORT
404110250	LABORATORY ANALYTICAL REPORT
404110251	LABORATORY ANALYTICAL REPORT
404110252	LABORATORY ANALYTICAL REPORT
404110253	LABORATORY ANALYTICAL REPORT
404110254	LABORATORY ANALYTICAL REPORT
404110255	LABORATORY ANALYTICAL REPORT
404110256	LABORATORY ANALYTICAL REPORT
404110257	LABORATORY ANALYTICAL REPORT
404110258	ANALYTICAL DATA SUMMARY TABLE(S)

Total Attach: 19 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Environmental	ECMC has denied this Form and NFA request. Concentrations/levels of Soil Suitability for Reclamation Parameters and metals which exceed Table 915-1 and site specific background levels at comparable depths remain in situ.	01/08/2026
Environmental	Rerun samples presented in this form are not in compliance with ECMC rules or Environmental Standard Practices. No scientific justification has been provided for the multiple reruns/resamples at this site.	01/08/2026

Total: 2 comment(s)