

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404500386  
Receive Date:  
01/20/2026

Report taken by:  
Taylor Robinson

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) 929-4307 Mobile: ( )
Address: P O BOX 173779		
City: DENVER	State: CO	Zip: 80217-3779
Contact Person: Max Moran	Email: DJRemediation_Forms@oxy.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35316 Initial Form 27 Document #: 403772825

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 #: 123-21110	County Name: WELD
Facility Name: MILLER 6-33A	Latitude: 40.182710	Longitude: -104.783990	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 33	Twp: 3N	Range: 66W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 488113	API #: _____	County Name: WELD
Facility Name: Miller 6-33A Wellhead	Latitude: 40.182710	Longitude: -104.783990	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 33	Twp: 3N	Range: 66W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Occupied Building

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

Water well 230 feet (ft) northwest. Occupied building 1,270 ft southwest. County Road 1,170 ft north. Agriculture. Groundwater at approximately 8 ft below ground surface (bgs).

## 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
UNDETERMINED	GROUNDWATER	TBD	Groundwater Samples/Laboratory Analytical Results
Yes	SOILS	TBD	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 were completed at the Miller 6-33A wellhead on August 30, 2024. Groundwater was encountered in the cut and cap excavation at approximately 8 ft bgs. Visual inspection and field screening of soil around the wellhead and associated pumping equipment were conducted following cut and cap operations. A soil sample (B01@6') was collected for analysis of full list Table 915-1 constituents to determine if a release occurred. An additional sample (E01@3') was collected to determine if a release occurred. The flowline associated with the wellhead was removed between August 2 and August 7, 2024. Samples were collected from the locations where the flowline risers were disconnected from the wellhead (WH01-RISER@3') and from the separator (SEP02-RISER@3'). Samples were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. Laboratory analytical results indicated that polycyclic aromatic hydrocarbon (PAH), pH, arsenic, and/or lead exceeding the ECMC Table 915-1 allowable levels and background levels were present at the former wellhead and SEP02-RISER locations. As such, a Form 19 Initial/Supplemental Spill/Release Report (Document No. 403908581) was submitted on September 5, 2024, and the ECMC issued Spill/Release Point ID 488113. Given the location in proximity to previously identified impacts at the SEP02-RISER location, the impacts were reported with and subsequently excavated under the Miller 3&6-33A facility decommissioning activities (Remediation No. 35310).

Additional assessment activities are pending and details will be provided in a subsequent Form 27 Supplemental report.

### 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 30 and October 24, 2024, excavation activities were conducted to address remaining soil impacts at the former wellhead and seven confirmation soil samples were collected from the base and sidewalls of the final excavation extents at depths of approximately 8 ft bgs and 4 ft bgs. Confirmation soil samples were submitted for laboratory analysis of the site-specific waste profile including total petroleum hydrocarbons (TPH), PAHs, sodium adsorption ratio (SAR), pH, boron, arsenic, barium, cadmium, copper, lead, nickel, and zinc, using ECMC-approved methods. Results indicated that barium and nickel exceeding the Table 915-1 allowable levels and background levels remain in the former wellhead excavation area. Additional assessment activities are pending.

#### Proposed Groundwater Sampling

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

Groundwater was encountered in the cut and cap excavation at approximately 8 ft bgs. One groundwater sample [GW01(6-33A)@8'] was collected and submitted for analysis of full list Table 915-1 constituents in groundwater. One background groundwater sample was collected for Table 915-1 inorganic constituents in groundwater. Analytical results indicate that groundwater is within Table 915-1 allowable levels or background levels and no organic constituents were detected above the laboratory reporting limit. Based on compliant groundwater in contact with impacted soil, groundwater monitoring wells will be installed to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater.

**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 ):

Between August 2 and August 30, 2024, visual inspection and field screening of soil were conducted at four sidewall locations within the cut and cap excavation area, four locations at the ground surface adjacent to the cut and cap excavation, and 11 flowline 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 September 5, 2024, a soil gas survey was conducted at 5 soil vapor points installed adjacent to the former wellhead location following cut and cap operations. GEM 5000 field readings were all non-detect for methane at all soil vapor points.

**SITE INVESTIGATION REPORT**

**SAMPLE SUMMARY**

**Soil**

**NA / ND**

Number of soil samples collected	12	--	Highest concentration of TPH (mg/kg)	138
Number of soil samples exceeding 915-1	12	--	Highest concentration of SAR	11.5
Was the areal and vertical extent of soil contamination delineated?	No		BTEX > 915-1	No
Approximate areal extent (square feet)	548		Vertical Extent > 915-1 (in feet)	8

**Groundwater**

Number of groundwater samples collected	1	ND	Highest concentration of Benzene (µg/l)	_____
Was extent of groundwater contaminated delineated?	No	ND	Highest concentration of Toluene (µg/l)	_____
Depth to groundwater (below ground surface, in feet)	8	ND	Highest concentration of Ethylbenzene (µg/l)	_____
Number of groundwater monitoring wells installed	0	ND	Highest concentration of Xylene (µg/l)	_____
Number of groundwater samples exceeding 915-1	0	NA	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?

Ten background soil samples were collected from the native material outside of the wellhead cut and cap excavation area. Four background samples were also collected as part of the Miller 3&6-33A facility decommissioning and Miller 18, 21, 22, 31-33 wellhead cut and cap activities (Rem# 35310), located approximately 800 ft northwest, from similar depths (8' and 12' bgs), NRCS soil type (sandy loam), and land use. Background soil samples were submitted for laboratory analysis of pH, electrical conductivity (EC), SAR, boron, and Table 915-1 metals using ECMC-approved methods. Analytical results indicate that EC, SAR, pH, arsenic, barium, cadmium, lead, and selenium are naturally high in the native soil.

One background groundwater sample was submitted for analysis of Table 915-1 inorganic constituents in groundwater.

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 assesment activities are pending, and details will be provided 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.

Impacted soil from the wellhead cut and cap excavation will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of assessment activities. Disposal records are kept on file and available upon request. The excavation area will be backfilled and contoured to match pre-existing conditions. The arsenic exceedance at the SEP02-RISER@3' location were excavated as part of Remediation No. 35310 and waste quantities associated with the excavation will be submitted in a Form 27 Supplemental report under that remediation number.

### 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.

Laboratory data indicate that barium and nickel exceeding the Table 915-1 allowable levels and background levels remain in the former wellhead excavation area. Groundwater was encountered in the wellhead excavation at approximately 8 ft bgs. Analytical results indicate that groundwater is within Table 915-1 allowable levels or within background levels and no organic constituents were detected above the laboratory reporting limit. Based on compliant groundwater in contact with impacted soil, groundwater monitoring wells will be installed to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater. Additional assessment activities are pending and details will be provided in a subsequent Form 27 Supplemental report.

### 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 ECOM 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.

Based on compliant groundwater in contact with impacted soil, groundwater monitoring wells will be installed to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater. The monitoring well installation scope of work will be submitted in a subsequent Form 27 Supplemental report following completion of soil assessment activities.

# 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 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: \$ 11500 \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? \_\_\_\_\_

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: \_\_\_\_\_

## 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. 09/04/2024

Actual Spill or Release date, or date of discovery. 09/03/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/02/2024

Proposed site investigation commencement. 08/02/2024

Proposed completion of site investigation. 06/22/2026

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 08/30/2024

Proposed date of completion of Remediation. 06/22/2027

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**

No additional work has been done since the previous Form 27 submitted on 10/22/2025 (Document No. 404312167). Additional assessment at this location is pending. Work is scheduled to resume by June, 2026. As such, none of the previous attachments have been included with this form. The implementation schedule has been updated.

Please refer to the Form 27 submitted on 10/22/2025 (Document No. 404312167) for the request for the Director's Approval to establish site specific waste profile.

KMOG has a large number of active remediation projects and is working diligently to bring each project to closure. These projects are prioritized based on potential environmental risk; considering factors such as size of impact, type of impact, what media is impacted, proximity to sensitive receptors and land use. Due to this prioritization, no field work has been completed on this project since the previous Form 27 submittal. Field work is anticipated to resume on the project by June 2026.

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

Signed: Max Moran

Title: Environmental Advisor

Submit Date: 01/20/2026

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: 35316

**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.

**Att Doc Num**

**Name**

404500386	FORM 27-SUPPLEMENTAL-SUBMITTED
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Total Attach: 1 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

Environmental	<p>ECMC has denied this form without technical review as Operator has provided no analytical or site investigation data showing progress of remediation of impacts documented at this location.</p> <p>Per Rule 912.a.(1-2): Operators will investigate, clean up, and document impacts resulting from Spills and Releases as soon as the impacts are discovered. Operator shall not delay execution of remedial or investigative actions while waiting for ECMC approval and may request expedited review if necessary.</p> <p>Operator shall conduct work in compliance with approved workplans and the 900 Series Rules. Operator shall provide a replacement form documenting investigation and clean up of these impacts; if a form providing this information is in process no replacement Form is due. If Operator is requesting a schedule change under Rule 913.d.(2) Operator shall attach adequate justification for the request. All ongoing/unaddressed comments/COAs from previous Forms remain applicable.</p>	01/30/2026
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Total: 1 comment(s)