

State of Colorado  
Energy & Carbon Management Commission

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Report taken by:  
Kari Brown

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>	Phone Numbers Phone: <u>(970) 5201272</u> Mobile: <u>( )</u>
Address: <u>P O BOX 173779</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80217-3779</u>
Contact Person: <u>Macy Kiel</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35206 Initial Form 27 Document #: 403743293

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

No  Multiple Facilities

Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>123-21337</u>	County Name: <u>WELD</u>
Facility Name: <u>WHEELER 1-21A</u>	Latitude: <u>40.129400</u>	Longitude: <u>-104.775170</u>	
	** correct Lat/Long if needed: Latitude: <u>40.129237</u>	Longitude: <u>-104.775208</u>	
QtrQtr: <u>NENE</u>	Sec: <u>21</u>	Twps: <u>2N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

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 and livestock holding pens are located within ¼ mile of the wellhead.  
A building is located approximately 1,310 feet southeast of the wellhead.  
The nearest domestic water well is located approximately 1,010 feet to the 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
No	SOILS	See attached data	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 were completed at the Wheeler 1-21A Wellhead on June 12, 2024. Soil screening around the well and associated pumping equipment was conducted following cut and cap operations, and soil sample (WH-B01@6') was submitted for laboratory analysis of the full Table 915-1 analytical suite using standard ECMC-approved methods. Flowline removal activities were conducted on June 12, through June 14, 2024. Soil samples were collected from where the flowline riser was disconnected at the wellhead (FL-B01@4'), separator (FL-B02@4') and the major directional change (FL-B04@4') and were submitted for laboratory analysis of the full Table 915-1 analytical suite to determine if a release occurred. Laboratory analytical results indicated that the chromium VI (Cr VI) concentration in soil sample WH-B01@6' exceeded ECMC Table 915-1 standards and site-specific background levels. As such, one (1) verification soil sample (WH-B01R@6') was collected to confirm the initial results and was submitted for analysis of Cr VI only. Analytical results indicated that the Cr VI concentration in verification soil sample WH-B01R@6' was in compliance with ECMC Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). Analytical results indicate that the remaining concentrations in soil samples collected during wellhead cut and cap and flowline removal activities were in compliance with ECMC standards and/or within site-specific background levels (x 1.25 for metals). A topographic Site Map is attached as Figure 1. The soil sample and field screening locations are illustrated on Figures 2 and 3.

## 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 June 12, through August 2, 2024, four (4) soil samples were collected during wellhead cut and cap and flowline removal activities as described above and were submitted for laboratory analysis of the full Table 915-1 analytical suite to determine if a release occurred. Additionally, one (1) verification soil sample was collected to confirm the initial Cr VI results. Analytical results indicated that constituent concentrations in the confirmation and verification soil samples collected during wellhead cut and cap and flowline removal activities were in compliance with the ECMC Table 915-1 standards. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Table 2 through 5.

### Proposed Groundwater Sampling

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

On June 13, 2024, groundwater was encountered during flowline removal site assessment activities at approximately 4 feet bgs and a sample (GW-FL-B02@4') was collected. The groundwater sample was submitted for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (1,2,4 - TMB), and 1,3,5-trimethylbenzene (1,3,5 - TMB), using standard methods appropriate for detecting the target analytes in ECMC Table 915-1 as described in the approved Form 27 Initial (Document No. 403743293). Analytical results indicated that constituent concentrations in the groundwater sample collected were non-detect (ND) and, therefore, in compliance with ECMC Table 915-1 standards. The groundwater sample location is illustrated on Figure 3.

### 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 June 12, through June 14, 2024, field screening of soils was conducted at 4 sidewall locations within the cut and cap excavation, 4 locations at the ground surface adjacent to the excavation area and 3 potholes during flowline removal activities. Based on the inspection and screening results, hydrocarbon-impacted soil was not observed at the soil screening locations, and no soil samples were submitted for laboratory analysis in accordance with ECMC Operator Guidance. On June 14, 2024, a soil gas survey was conducted at 4 soil vapor points (SVP01 - SVP04) installed adjacent to the former wellhead following cut and cap operations. GEM 5000 field readings were non-detect for methane at all 4 soil vapor points. The SVP locations are illustrated on Figure 2. The SVP screening results are summarized in Table 7. The laboratory analytical reports are provided as Attachment A. The field notes and a photographic log are provided as Attachment B.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 5  
Number of soil samples exceeding 915-1 1  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 0

### NA / ND

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_  
-- Highest concentration of SAR 4.64  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 6

### Groundwater

Number of groundwater samples collected 1  
Was extent of groundwater contaminated delineated? Yes  
Depth to groundwater (below ground surface, in feet) 4  
Number of groundwater monitoring wells installed 0  
Number of groundwater samples exceeding 915-1 0

ND Highest concentration of Benzene (µg/l) \_\_\_\_\_  
ND Highest concentration of Toluene (µg/l) \_\_\_\_\_  
ND Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_  
ND Highest concentration of Xylene (µg/l) \_\_\_\_\_  
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?

Were background samples collected as part of this site investigation?

Twelve (12) background samples were collected from undisturbed native material adjacent to the Wheeler 1-21A wellhead, at comparable depths and soil composition to the confirmation soil samples. The background soil samples were submitted for laboratory analysis of Table 915-1 metals and the Soil Suitability for Reclamation Parameters, using standard ECMC-approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Tables 4 and 5. Background locations are presented in Figure 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?

## 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.

Laboratory analytical results indicate that the constituent concentrations in the soil samples collected during wellhead cut and cap, flowline removal and subsequent verification soil sampling activities were in compliance with ECMC standards and/or within site-specific background levels (x 1.25 for metals). As such, no soils were removed during the wellhead cut and cap and partial flowline removal operations completed to date. The wellhead and flowline removal excavation areas were backfilled and contoured to match pre-existing site 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.

Laboratory analytical results indicate that the constituent concentrations in the soil samples collected during wellhead cut and cap, flowline removal and subsequent verification soil sampling activities were in compliance with ECMC standards and/or within site-specific background levels (x 1.25 for metals). Groundwater was encountered during flowline removal site assessment activities at approximately 4 feet bgs and a sample (GW-FL-B02@4') was collected. Analytical results indicated that constituent concentrations in the groundwater sample collected were non-detect (ND) and, therefore, in compliance with ECMC Table 915-1 standards. Based on the analytical and soil screening data presented herein, assessment is complete at the Wheeler 1-21A wellhead and flowline 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 )
- \_\_\_\_\_ Chemical oxidation
- \_\_\_\_\_ Air sparge / Soil vapor extraction
- \_\_\_\_\_ Natural Attenuation
- \_\_\_\_\_ Other \_\_\_\_\_

- \_\_\_\_\_ Excavate and offsite disposal
- \_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_
- \_\_\_\_\_ Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_
- \_\_\_\_\_ 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 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 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: \$ 0 \_\_\_\_\_

## 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: \_\_\_\_\_

# 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 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. 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. 09/25/2024

Proposed date of completion of Reclamation. 09/25/2025

## 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. 01/24/2024

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/12/2024

Proposed site investigation commencement. 06/12/2024

Proposed completion of site investigation. 08/02/2024

### 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**

Based on the analytical and soil screening data presented herein, assessment is complete at the Wheeler 1-21A wellhead and flowline and no further activities are required. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

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

Signed: Macy Kiel

Title: HSE Advisor

Submit Date: 09/25/2024

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: Kari Brown

Date: 12/09/2024

Remediation Project Number: 35206

**COA Type****Description**

	<p>Based on the information presented, it appears that no further action is necessary at this time and the ECMC approves the closure request. However, if future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.</p> <p>The surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules. For locations with active ongoing oil and gas operations, comply with Rule 1003 interim reclamation requirements and for locations that will no longer have active oil and gas operations, comply with Rule 1004 Final Reclamation requirements.</p>
1 COA	

**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**

403921577	FORM 27-SUPPLEMENTAL-SUBMITTED
403921635	ANALYTICAL RESULTS
403921636	ANALYTICAL RESULTS
403921637	PHOTO DOCUMENTATION
403921645	OTHER
403921646	SITE MAP
403921647	SOIL SAMPLE LOCATION MAP
403921651	SOIL SAMPLE LOCATION MAP
403921652	ANALYTICAL RESULTS
403921653	OTHER

Total Attach: 10 Files

**General Comments****User Group****Comment****Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)