FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Report taken by:

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 INFORMATON

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator No: 47120

Phone Numbers

Address: P O BOX 173779
Phone: (970) 515-1110
City: DENVER State: CO Zip: 80217-3779
Mobile: ( )
Contact Person: Macy Kiel
Email: DJRemediation_Forms@oxy.com

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35936 Initial Form 27 Document #: 403791675

PURPOSE INFORMATION

- [ ] Rule 913.c.(1): Pit or Cuttings Trench closure.
- [X] 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.
- [X] 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: LOCATION Facility ID: 414828 API #: County Name: WELD
Facility Name: STATE 2-16 Latitude: 40.057380 Longitude: -105.009240
** correct Lat/Long if needed: Latitude: 40.057030 Longitude: -105.008792
QtrQtr: NENW Sec: 16 Twp: 1N Range: 68W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL Facility ID: API #: 123-30937 County Name: WELD
Facility Name: STATE 8-16 Latitude: 40.057344 Longitude: -105.009252
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 16 Twp: 1N Range: 68W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL Facility ID: API #: 123-30942 County Name: WELD

Facility Name: STATE 2-16 Latitude: 40.057386 Longitude: -105.009254

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 16 Twp: 1N Range: 68W 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? Yes

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 350 feet southeast of the wellhead.
The nearest domestic water well is located approximately 900 feet to the southeast of the wellhead.
Surface water is located approximately 390 feet to the northwest of the wellhead.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [X] **E&P Waste**
  - [X] Produced Water
  - [X] Oil
  - [X] Condensate
  - [ ] Drilling Fluids
  - [ ] Drill Cuttings
- [ ] **Other E&P Waste**
  - [ ] Workover Fluids
  - [ ] Tank Bottoms
  - [ ] Pigging Waste
  - [ ] Rig Wash
  - [ ] Spent Filters
  - [ ] Pit Bottoms
  - [ ] Other (as described by EPA) _____
- [ ] **Non-E&P Waste** _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	N/A	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 State 2, 8-16 wellheads on July 11, 2024. Visual inspection and field screening of soil around the wellheads and associated pumping equipment were conducted following cut and cap operations, and soil samples collected (2-WH-B01@6' and 8-WH-B01@6'). The flowlines associated with the wellheads were removed between July 11 and July 16, 2024, and soil samples were collected from the locations where the flowline risers were disconnected from the wellheads (2-FL-B01@4' and 8-FL-B01@4') and from the separator (2,8-FL-B02@4'). The samples were submitted for laboratory analysis of full list Table 915-1 constituents to determine if a release occurred.

Decommissioning activities were completed at the State 2, 7, 26-16 Facility on July 15, 2024. Visual inspection and field screening of soil at three former aboveground storage tanks (ASTs), one produced water vessel (PWV), one meter house, two emission control devices (ECD), four dumpline potholes, and one separator were conducted following removal activities. Soil samples (SEP1-B01@4', SEP1-B02@4', AST1-B01@3", AST2-B02@3", AST3-B01@3", PW-B01@4', and PW-N01@2') were submitted for laboratory analysis of full list Table 915-1 constituents to determine if a release occurred.

Laboratory analytical results indicated that all soil samples collected during wellhead cut and cap, flowline removal, and facility decommissioning activities were in compliance with the ECMC Table 915-1 allowable levels or within site-specific background levels. The wellhead excavations, flowlines and facility are depicted on Figure 1. The PID readings and soil sample results are summarized in Tables 1 and 2, respectively. The Form 44 is attached.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

Between July 11 and July 16, 2024, soil samples were collected from the base of the cut and cap excavations, from the locations where the flowline risers were disconnected from the wellheads and from the separator, and from the locations of the former ASTs, PWV, and separator. The samples were submitted for laboratory analysis of full list ECMC Table 915-1 constituents, using ECMC-approved methods. Laboratory analytical results indicated that soil samples were in compliance with the ECMC Table 915-1 allowable levels or within site-specific background levels. The laboratory reports are attached.

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, flowline removal, or facility decommissioning 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):

Between July 11 and July 16, 2024, visual inspection and field screening of soil were conducted at four sidewall locations within each cut and cap excavation area, four locations at the ground surface adjacent to the cut and cap excavations, two flowline potholes, one additional location at each AST, three sidewalls within the PWV excavation, four dumpline potholes, two ECDs, and one meter house. Based on the inspection and screening results, 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. A photo log is attached.

The soil gas survey is pending.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 12

Number of soil samples exceeeding 915-1: 12

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: 1.47

BTEX > 915-1: No

Vertical Extent > 915-1 (in feet): 0

Groundwater

Number of groundwater samples collected: 0

Was extent of groundwater contaminated delineated? Yes

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?

Sixteen background soil samples (BG-01@3' through BG-06@3', BG-01@6' through BG-06@6', and BG-01@3" through BG04@3") were collected from native material outside of the cut and cap and facility excavations. The background soil samples were submitted for laboratory analysis of pH, electrical conductivity (EC), sodium adsorption ratio (SAR), boron, and Table 915-1 metals, using ECMC-approved methods. Results indicate that EC, SAR, pH, boron, arsenic, barium, hexavalent chromium, lead, and selenium are naturally high in the native soil. The background sample locations are depicted on Figure 1.

☐ 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?

The soil gas survey is pending and results 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.

Laboratory analytical results indicate that full list Table 915-1 constituent concentrations for the soil samples collected during wellhead cut and cap, flowline removal, and facility decommissioning activities, were in compliance with the ECMC Table 915-1 standards or within site-specific background levels; therefore, no soil was removed from the site during wellhead cut and cap, flowline removal, or facility decommissioning activities. The excavation area has been backfilled and contoured to match pre-existing site 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 indicate that full list Table 915-1 constituent concentrations for the soil samples collected during wellhead cut and cap, flowline removal, and facility decommissioning activities, were in compliance with the ECMC Table 915-1 standards or within site-specific background levels. Groundwater was not encountered in the excavations. The soil gas survey is pending and results will be summarized in a subsequent Form 27 Supplemental report.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ 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:

[X] 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: $ 2000

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? 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? 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?

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. 05/01/2024

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/11/2024

Proposed site investigation commencement. 07/11/2024

Proposed completion of site investigation. 06/20/2025

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

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: 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: 35936

COA Type	Description
0 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
404037585	CORRESPONDENCE
404037587	ANALYTICAL RESULTS
404037592	PHOTO DOCUMENTATION
404037595	ANALYTICAL RESULTS
404037596	ANALYTICAL RESULTS
404037597	ANALYTICAL RESULTS
404039103	SOIL SAMPLE LOCATION MAP

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)