FORM 27 Rev 5/22

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 INFORMATON

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator No: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Person: Erik Mickelson Email: DJRemediation_Forms@oxy.com

Phone Numbers
Phone: (720) 929-4306
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 34630 Initial Form 27 Document #: 403688491

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

No Multiple Facilities

Facility Type: LOCATION Facility ID: 317772 API #: County Name: WELD
Facility Name: ROY DUTCHER UNIT-62N67W 24SWSW Latitude: 40.119200 Longitude: -104.845120
** correct Lat/Long if needed: Latitude: 40.118009 Longitude: -104.844969
QtrQtr: SWSW Sec: 24 Twp: 2N Range: 67W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM
Most Sensitive Adjacent Land Use Sand Hills Lake
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

Domestic water well: multiple domestic wells within 1/4 mile
Surface water: approximately 100' E,320' W
Wetlands: multiple areas with wetland characteristics are located within 1/4 mile
Springs: none
Livestock: none
Occupied building: multiple occupied buildings within 1/4 mile
High Priority Habitat: none

SITE INVESTIGATION PLAN

TYPE OF WASTE:

[X] **E&P Waste**	[ ] **Other E&P Waste**	[ ] **Non-E&P Waste**
[X] Produced Water	[ ] Workover Fluids	_____
[X] Oil	[ ] Tank Bottoms	
[X] 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
No	SOILS	No impacted soils	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.

Decommissioning activities were completed at the Dutcher Roy UT1/Sali production facility on July 1, 2024. Visual inspection and field screening of soils at one separator, one meter house, one produced water vessel (PWV), one emission control device (ECD), three dumpline removal potholes, and one aboveground storage tank (AST) were conducted following removal activities and soil samples (SEP-B01@5', SEP-B02@5', AST-B01@6", PW-B01@5', PW-W01@2', DL-B02@5') were submitted for laboratory analysis to determine if a release occurred. Initial laboratory analytical results indicated that the pH, arsenic, and/or lead concentrations in the soil samples exceeded the applicable ECMC Table 915-1 standards and background limits. As such, verification soil samples (SEP-B02-01@5', SEP-B01-01@5', DL-B02-01@5', AST-B01-01@6", PW-B01-01@5' and PW-W01-01@4') were collected and submitted for analysis of pH, arsenic, and/or lead only, as applicable. Final analytical results for the verification soil samples (SEP-B02-01@5', SEP-B01-01@5', DL-B02-01@5', AST-B01-01@6", PW-B01-01@5' and PW-W01-01@4') indicated that constituent concentrations in the verification soil samples were in compliance with ECMC Table 915-1 standards and/or within background limits, with the exception of the pH concentration in soil sample SEP-B01-01@5' (8.46), which exceeded Table 915-1 standards and site specific background limits (8.42). Due to the absence of any organic detections in the confirmation samples, when compared to background, the elevated pH level is considered de minimis & not an indication of a release associated with E&P activities. 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 Figure 2. Laboratory analytical reports are attached. The field notes and a photographic log are provided as Attachment A.

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):

On July 1 through September 5, 2024, soil samples were collected from the base (PW-B01@5') and sidewall (PW-W01@2') of the PWV excavation, the separator excavation (SEP-B01@5', SEP-B02@5'), a dumpline removal pothole (DL-B02@5') and beneath the former AST (AST-B01@6"). The soil samples were submitted for laboratory analysis of the ECMC Table 915-1 using ECMC approved methods. Initial laboratory analytical results indicated that pH, arsenic, and/or lead concentrations in the soil samples exceeded the applicable ECMC Table 915-1 standards and background limits. As such, verification soil samples were collected and submitted for analysis of pH, arsenic, and/or lead only, as applicable. Final analytical results for the verification soil samples indicated that constituent concentrations in the verification soil samples were in compliance with ECMC Table 915-1 standards and/or within background limits. Soil analytical results are presented in Tables 2 through 5.

Proposed Groundwater Sampling

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

Groundwater was not encountered during 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):

On July 1, 2024, visual inspections and field screening of soils was conducted at three sidewalls of the PWV excavation, one ECD, one meter house, beneath one former AST, and at two dumpline removal pothole excavations. Based on the inspection and screening results, hydrocarbon-impacted soils were not observed at the soil screening locations. As a result, no soil samples were submitted for laboratory analysis from these areas in accordance with the ECMC Operator Guidance for Oil & Gas Facility Closure document.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 12
Number of soil samples exceeeding 915-1: 10
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet): 0

NA / ND

ND — Highest concentration of TPH (mg/kg):
-- — Highest concentration of SAR: 4.66
BTEX > 915-1: No
Vertical Extent > 915-1 (in feet): 0

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?

[X] Were background samples collected as part of this site investigation?

Background soil samples PW-BG01 - PW-BG03 and AST-BG01 - AST-BG03 were collected from non-impacted native material nearby the tank battery at depths ranging from approximately 0.5' - 6' bgs. Background soil samples from the Salinas 11-24A wellhead have been included (located approximately 1700' northeast, collected from similar land use, depths, and soil type). 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 ECMC Table 915-1. Analytical results for the background soil samples are presented in Tables 3 and 5. The background locations are illustrated on Figures 2 through 4.

[ ] 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.

Initial laboratory analytical results indicated that pH, arsenic, and/or lead concentrations in the soil samples exceeded the applicable ECMC Table 915-1 standards and background limits. As such, verification soil samples were collected and submitted for analysis of pH, arsenic, and/or lead only, as applicable. Final analytical results for the verification soil samples indicated that constituent concentrations in the verification soil samples were in compliance with ECMC Table 915-1 standards and/or within background limits. The excavation areas will be backfilled and contoured to match preexisting 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.

Initial laboratory analytical results indicated that pH, arsenic, and/or lead concentrations in the soil samples exceeded the applicable ECMC Table 915-1 standards and background limits. As such, verification soil samples were collected and submitted for analysis of pH, arsenic, and/or lead only, as applicable. Final analytical results for the verification soil samples indicated that constituent concentrations in the verification soil samples were in compliance with ECMC Table 915-1 standards and/or within background limits. Groundwater was not encountered during decommissioning activities. Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further action (NFA) determination for this location.

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

[X] 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? 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:

[X] 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. 12/10/2024

Proposed date of completion of Reclamation. 12/10/2025

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. 01/09/2024

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/01/2024

Proposed site investigation commencement. 07/01/2024

Proposed completion of site investigation. 09/05/2024

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

Final analytical results indicated that constituent concentrations in the soil samples collected are in compliance with ECMC Table 915-1 standards and/or within background limits, with the exception of the pH concentration in soil sample SEP-B01-01@5' (8.46), which exceeded Table 915-1 standards and site-specific background limits (8.42). Due to the absence of any organic detections in any of the confirmation soil samples collected following decommissioning activities, when compared to background, the elevated pH level is considered de minimis & not an indication of a release associated with E&P activities. As such, KMOG is requesting NFA status for this Remediation Project.

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: 12/10/2024 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: 02/04/2025

Remediation Project Number: 34630

COA Type	Description
	Based on the information presented, it appears the elevated pH sample from the wellhead area appears to be de minimis in quantity or within the range of background pH; therefore, elevated pH may not be associated with E&P activities. It appears that no further remedial action is necessary at this time and the ECMC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or background levels or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required. 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.
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
403944377	FORM 27-SUPPLEMENTAL-SUBMITTED
403944879	SITE MAP
403944882	SOIL SAMPLE LOCATION MAP
403944884	SOIL SAMPLE LOCATION MAP
403944887	PHOTO DOCUMENTATION
403944900	ANALYTICAL RESULTS
403944903	ANALYTICAL RESULTS
403944906	ANALYTICAL RESULTS
403944907	ANALYTICAL RESULTS
403979498	ANALYTICAL RESULTS
403980306	SOIL SAMPLE LOCATION MAP

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)