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: Maxwell Moran Email: DJRemediation_Forms@oxy.com

Phone Numbers
Phone: (720) 929-4307
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35990 Initial Form 27 Document #: 403826988

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.
- [X] 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: WELL Facility ID: API #: 123-22431 County Name: WELD
Facility Name: PARAGON FARMS 42-25 Latitude: 40.111639 Longitude: -104.717564
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SENE Sec: 25 Twp: 2N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487489 API #: County Name: WELD
Facility Name: Paragon Farms 42-25 Workover Rel. Latitude: 40.111639 Longitude: -104.717564
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SENE Sec: 25 Twp: 2N Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications: SM

Most Sensitive Adjacent Land Use: Non-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

The nearest domestic water well is located approximately 990 feet to the south of the wellhead.
An area with wetland characteristics is located approximately 1230 feet south of the wellhead.
The wellhead is located outside the 1/2 mile buffer of a designated Bald Eagle Active Nest Site high priority habitat, however the wellhead is located with a ¼ mile of the high priority habitat buffer boundary.

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	GROUNDWATER	Groundwater not encountered	Groundwater samples/laboratory analytical results
Yes	SOILS	23' (E-W) x 20' (N-S) x 8' 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.

Assessment activities were completed at the Paragon Farms 42-25 wellhead on July 24, 2024, for a release that occurred during well servicing operations. Visual inspection and field screening of soils around the release location was conducted and soil sample REL-B01@3" was submitted for laboratory analysis of ECMC Table 915-1 using ECMC-approved methods appropriate for detecting the target analytes. Analytical results indicated that the BTEX, naph., TMBs, TPH, 1-M., 2-M., fluorene, SAR, Ba, Ca, and Se concentrations in soil sample REL-B01@3" exceeded ECMC Table 915-1 and/or site specific background limits. As such, Form 19-Initial and Supplemental Spill/Release Reports (ECMC Document Nos. 403863490 and 403873348) were submitted on July 24, 2024 and August 1, 2024 respectively, and the ECMC issued Spill/Release Point ID 487489.

Wellhead cut and cap operations were completed at the Paragon Farms 42-25 wellhead on October 25, 2024. Groundwater was not encountered during decommissioning activities. Visual inspection and field screening of soils around the wellhead and associated pumping equipment was conducted following wellhead cut and cap operations, and soil samples WH-B01@6', WH-W01@5', and WH-N01@5' were submitted for laboratory analysis. Flowline assessment activities were completed on October 25, 2024 and April 15, 2025 and soil samples FL-B01@3' and FL-B08@3" were submitted for laboratory analysis. Analytical results indicated that concentrations of naph., TMBs, TPH, 1-M, 2-M, Ba, and Pb in soil sample WH-B01@6', naph., 1-M, and 2-M in soil sample WH-W01@5', 1-M and 2-M in soil sample WH-N01@5', pH, SAR, and Pb in soil sample FL-B01@3', and Ca in soil sample FLB08@3" exceeded Table 915-1 and/or site specific background limits. As such, a verification soil sample (FL-B08V@3") was submitted for laboratory analysis of Ca only. Analytical results verified the Ca exceedance in soil sample FL-B08@3". The Ca exceedance is being remediated under Rem. Project No. 36214.

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 December 11, 2024, excavation activities were conducted to address the remaining soil impacts at the release location (REL-B01@3") . Confirmation soil samples were collected from the base (WH-B01@8') and sidewalls (WH-N02@3', WH-N02@6', WH-S02@3', WH-S02@6', WH-E02@3', WH-E02@6', WH-W02@3', WH-W02@6') of the excavation extent at depths ranging from 3'-8' bgs. Based on the waste characterization results (WH-B01@6', WH-N01@5', and WH-W01@5'), the soil samples were submitted for laboratory analysis of the site-specific waste characterization using ECMC-approved methods. Laboratory analytical results indicate that all confirmation soil samples were compliant with ECMC Table 915-1 and/or site specific background limits.

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 wellhead cut and cap or flowline removal 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):

From October 25, 2024 - April 15, 2025, visual inspection and field screening of soils was conducted at 2 sidewall locations within the cut and cap excavation area, 4 locations at the ground surface adjacent to the excavation, and 6 flowline removal pothole excavations. 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 October 31, 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: 16
Number of soil samples exceeeding 915-1: 16
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet): 683

NA / ND

-- Highest concentration of TPH (mg/kg): 3840
-- Highest concentration of SAR: 59.4
BTEX > 915-1: Yes
Vertical Extent > 915-1 (in feet): 6

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:

NA Highest concentration of Benzene (µg/l):
NA Highest concentration of Toluene (µg/l):
NA Highest concentration of Ethylbenzene (µg/l):
NA Highest concentration of Xylene (µg/l):
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?

Background soil samples (BG-01@3"-BG-04@3", WH-BG01@3'-WH-BG04@3', WH-BG01@6'-WH-BG04@6') were collected from native material adjacent to the wellhead cut and cap excavation. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters and Table 915-1 Metals using standard methods appropriate for detecting the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Tables 3 and 5. Background soil sample locations are illustrated on 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.

On December 11, 2024, approximately 120 cubic yards of impacted soil was excavated and transported to the Buffalo Ridge Landfill located in Keenesburg, Colorado for disposal. Laboratory analytical results indicated that impacted soils in the excavation areas have been remediated to be in compliance with the ECMC Table 915-1 standards and/or site specific background limits. The excavation area will be 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 the impacted soils in the excavation area have been remediated to be in compliance with the ECMC Table 915-1 standards and/or within site specific 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**

- Yes Excavate and offsite disposal
  - If Yes: Estimated Volume (Cubic Yards) 120
  - Name of Licensed Disposal Facility or ECMC Facility ID # ____
- No Excavate and onsite remediation
  - ____ Land Treatment
  - ____ Bioremediation (or enhanced bioremediation)
  - ____ Chemical oxidation
  - ____ Other ____

Groundwater Remediation Summary

- No Bioremediation (or enhanced bioremediation)
- No Chemical oxidation
- No Air sparge / Soil vapor extraction
- No Natural Attenuation
- No 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

[X] **Request Alternative Reporting Schedule:**

[ ] Semi-Annually [ ] Annually [X] Other NFA Request

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 Final Report

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? 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 120

E&P waste (solid) description Impacted Soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Buffalo Ridge Landfill - 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:

[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. 08/13/2025

Proposed date of completion of Reclamation. 08/13/2026

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. 04/30/2024

Actual Spill or Release date, or date of discovery. 07/23/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/24/2024

Proposed site investigation commencement. 07/24/2024

Proposed completion of site investigation. 04/15/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/23/2024

Proposed date of completion of Remediation. 04/15/2025

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

The cadmium exceedance identified in soil sample FL-B08@3" shall be remediated under Remediation Project No. 36214.

Based on the analytical and soil screening data presented herein, assessment is complete and Kerr-McGee is requesting an 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: Maxwell Moran Title: Environmental Advisor

Submit Date: 09/15/2025 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: 35990

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
404312301	FORM 27 DENIED
404314017	SITE MAP
404314021	SOIL SAMPLE LOCATION MAP
404314022	SOIL SAMPLE LOCATION MAP
404314024	SOIL SAMPLE LOCATION MAP
404314034	PHOTO DOCUMENTATION
404314036	LABORATORY ANALYTICAL REPORT
404314038	LABORATORY ANALYTICAL REPORT
404314039	LABORATORY ANALYTICAL REPORT
404314040	LABORATORY ANALYTICAL REPORT
404314044	OTHER
404315614	SOIL SAMPLE LOCATION MAP
404355102	ANALYTICAL DATA SUMMARY TABLE(S)
404416633	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 14 Files

General Comments

User Group	Comment	Comment Date
Environmental	ECMC does not approve NFA at this location. The full extent of the remedial excavation was not sampled for a full list of contaminants of concern. Operator shall submit a replacement Form 27 proposing sampling for all organic that were detected and metals above site specific background in the waste characterization.	10/30/2025

Total: 1 comment(s)