

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Laurel Anderson

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) 929-4306 Mobile: ()
Address: P O BOX 173779		
City: DENVER	State: CO	Zip: 80217-3779
Contact Person: Erik Mickelson	Email: DJRemediation_Forms@oxy.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37615 Initial Form 27 Document #: 403921182

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 #: 123-22005	County Name: WELD
Facility Name: BALDWIN 12-11	Latitude: 40.150880	Longitude: -104.638800	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWSW	Sec: 11	Twp: 2N	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 489138	API #: _____	County Name: WELD
Facility Name: Baldwin 12-11 Wellhead	Latitude: 40.150880	Longitude: -104.638800	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWSE	Sec: 11	Twp: 2N	Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Residential

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

Surface water: Unnamed riverine approximately 355 feet west of the location.
Wetlands: An area with wetland characteristics is located 355 feet west of the location.
Water Wells: The nearest water well is located 335 feet southwest of the location.
Springs: None.
Occupied Building: A building is located approximately 317 feet southwest of the location.
Livestock: Livestock is located approximately 500 feet southwest of the location.
High Priority Habitats: None.



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 initiated at the Baldwin 12-11 wellhead on December 19, 2024. Visual inspection of soils around the well and associated pumping equipment were conducted following cut and cap operations, and a soil sample (WH-B01@7') was submitted for laboratory analysis of the full Table 915-1 analytical suite to determine if a release occurred. Additionally, soil sample FL-B01@4' was collected from the location where the flowline rise was disconnected at the wellhead. The soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite using standard ECOMC-approved methods to determine if a release occurred. Laboratory analytical results indicated that constituent concentrations were in compliance with Table 915-1 standards and/or site specific background levels (x 1.25 for metals) with the exception of 1-methylnaphthalene (1-M) and naphthalene (naph) concentrations in soil sample WH-B01@7'. As such, a Form 19-Initial/Supplemental Spill/Release Report (Document No. 404070914) was submitted on January 28, 2025, and the ECOMC issued Spill/Release Point ID 489138. Removal of the flowline associated with the Baldwin 12-11 wellhead was completed between March 12 and 14, 2025, and soil sample FL-B02@4' was collected at the separator riser location and submitted for the full Table 915-1 analytical suite to determine if a release occurred. Analytical results indicated that constituent concentrations were in compliance with Table 915-1 standards and/or site specific background levels (x 1.25 for metals). A topographic Site Location Map showing the geographic setting of the site is provided as Figure 1. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 through 5. 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 March 12, 2025, over-excavation activities were conducted to address soil impacts at the Baldwin 12-11 wellhead. Based on analytical results of soil sample location WH-B01@7', a waste characterization profile was created and five (5) confirmation soil samples were collected from the wellhead excavation area and submitted for laboratory analysis of 1-M, 2-Methylnaphthalene (2-M), naph, arsenic (As), barium (Ba), cadmium (Cd), lead (Pb), nickel (Ni), and pH. Analytical results indicated that constituent concentrations in the soil samples collected from the over-excavation area were in compliance with Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). The excavation soil sample locations are illustrated on Figure 4.

Proposed Groundwater Sampling

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

Groundwater was not encountered during the wellhead cut and cap, flowline removal, verification soil sampling, or over-excavation 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 December 19, 2024, soil screening was conducted at four sidewall locations within the cut and cap excavation area, four locations at the ground surface adjacent to the excavation, and nine flowline removal potholes. 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 ECOMC Operator guidance. On January 9, 2025, a soil gas survey was conducted at five soil vapor points (SVP01-SVP05) installed adjacent to the former wellhead location following cut and cap operations. GEM 5000 field readings were non-detect for methane at all four soil vapor points that were able to be screened (SV01-SVP04). SVP05 was clogged and not able to be screened. The SVP locations are illustrated on Figure 2. The soil vapor screening results are summarized in Table 6. The laboratory analytical reports, field notes, and a photographic log are provided as attachments.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 8
Number of soil samples exceeding 915-1 1
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 200

NA / ND

ND Highest concentration of TPH (mg/kg) _____
-- Highest concentration of SAR 2.55
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 9

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?

Thirteen (13) background soil samples were collected from undisturbed native material adjacent to the former wellhead and flowline riser locations, at comparable depths and soil composition to the confirmation soil samples. Additionally, background soil samples were utilized from the nearby Dowdy 35-11 wellhead. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters and Table 915-1 metals using standard ECOMC-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. Baldwin 12-11 wellhead background soil sample locations are presented in Figures 2 and 4. A site overview map showing the proximity of the nearby background sample locations relative to the Baldwin 12-11 is provided as Figure 5.

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 March 12, 2025, approximately 50 cubic yards of impacted material were excavated from the wellhead excavation area and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado, for disposal.

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.

Analytical results for the final confirmation soil samples were in compliance with ECMC Table 915-1 standards and/or site-specific backgrounds levels (x 1.25 for metals). Groundwater was not encountered during wellhead cut and cap, flowline removal, verification soil sampling, or subsequent over-excavation activities. Based on the analytical and soil screening data presented herein, assessment is complete at this site 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)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 50

_____ Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC 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.

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? Yes _____

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Approximately 50 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling.

Volume of E&P Waste (solid) in cubic yards _____ 50

E&P waste (solid) description _____ Impacted soil _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____ Kerr-McGee Land Treatment Facility

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:

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 reseeded 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. 05/31/2025

Proposed date of completion of Reclamation. 05/31/2026

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. 09/11/2024

Actual Spill or Release date, or date of discovery. 01/27/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/19/2024

Proposed site investigation commencement. 12/19/2024

Proposed completion of site investigation. 03/14/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/12/2025

Proposed date of completion of Remediation. 03/12/2025

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

Based on the analytical and soil screening data presented herein, Kerr-McGee is requesting a 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: Erik Mickelson _____

Title: Environmental Lead _____

Submit Date: 05/13/2025 _____

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: 37615 _____

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**

404114258	FORM 27-SUPPLEMENTAL-SUBMITTED
404201085	SITE MAP
404201086	SOIL SAMPLE LOCATION MAP
404201087	SOIL SAMPLE LOCATION MAP
404201089	SOIL SAMPLE LOCATION MAP
404201090	SOIL SAMPLE LOCATION MAP
404201092	ANALYTICAL DATA SUMMARY TABLE(S)
404201094	PHOTO DOCUMENTATION
404201095	LABORATORY ANALYTICAL REPORT
404201096	LABORATORY ANALYTICAL REPORT
404201097	LABORATORY ANALYTICAL REPORT
404201098	LABORATORY ANALYTICAL REPORT

Total Attach: 12 Files

General Comments

User Group	Comment	Comment Date
Environmental	<p>ECMC has denied this form without technical review for the following reasons:</p> <ul style="list-style-type: none"> -Background samples presented were collected on former working pad surfaces and/or adjacent to historic releases/oil and gas infrastructure <p>Operator shall submit a replacement Form 27 Supplemental for this Remediation Project proposing additional site investigation and ensure the following items are reviewed and addressed as applicable:</p> <p>Operator shall fully remediate impacts and collect confirmation soil samples to document compliance with full Table 915-1 and/or within site specific background levels.</p> <ul style="list-style-type: none"> -Operator shall collect confirmation soil samples as described in the Rule 915.e.(2) Guidance Document. -Operator will collect samples on a bias; from areas and depths where the highest concentrations would be expected based on visible contamination, odor characteristics, field screening results, release characteristics, soil type and, if available, information from prior investigations. -Operator shall submit future confirmation soil samples for complete Table 915-1 contaminants of concern until Operator has submitted sufficient characterization data to request and receive Director Approval of reduced list of contaminants of concern. <p>Additionally, Operator shall ensure background soil samples are obtained from:</p> <ol style="list-style-type: none"> 1) Locations sufficiently away from impacted area(s) and oil and gas activities to reflect native conditions, 2) Similar depths and soil horizons or lithologic materials as the confirmation soil samples, 3) Locations with similar land use (current and historic) as the confirmation soil samples, 4) Locations with similar hydrologic conditions. <p>If for any reason the background samples do not meet the above criteria, then these samples shall be omitted from the site specific background determination calculations.</p>	01/22/2026

Total: 1 comment(s)