FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

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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: Max Moran Email: DJRemediation_Forms@oxy.com

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

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 40079 Initial Form 27 Document #: 404138838

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 #: 123-36814 County Name: WELD
Facility Name: TURKEY SPRINGS 1N-14HZ Latitude: 40.130200 Longitude: -104.738104
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENE Sec: 23 Twp: 2N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 490407 API #: County Name: WELD
Facility Name: Turkey Springs 1N-14HZ Wellhead Latitude: 40.130200 Longitude: -104.738104
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENE Sec: 23 Twp: 2N Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Rangeland

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

Surface water: The nearest surface water is located 4,290 feet northwest of the location.
Wetlands: None.
Water Wells: The nearest water well is located 824 feet east-northeast of the location.
Springs: None.
Occupied Building: A building is located approximately 1,144 feet west-northwest of the location.
Livestock: Livestock is within the location.
High Priority Habitats: None.

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
UNDETERMINED	GROUNDWATER	See attached data	Inspection/groundwater samples/laboratory analytical results
Yes	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 activities were initiated at the Turkey Springs 1N-14HZ wellhead location on May 13, 2025. Visual inspection and field screening of soils around the wellhead and associated pumping equipment were conducted following cut and cap operations, and two (2) soil samples (WH-B01@6' and WH-Riser@4') were collected and submitted for laboratory analysis. The flowline associated with the wellhead changed status from active to out-of-service due to active lines in the same trench and one (1) soil sample was collected from where the flowline was disconnected at the separator (SEP-Riser@3'). Soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite to determine if a release occurred. Laboratory analytical results indicated that constituent concentrations were in compliance with Table 915-1 standards, with the exception of 1-M, naphthalene, arsenic, barium, and pH at soil sample location WH-B01@6'; arsenic, barium, and pH at soil sample location WH-Riser@3'; and arsenic in soil sample location SEP-Riser@3'. As such, Form 19-Initial Spill/Release Reports (Document No. 404231191) was submitted on June 6, 2025, and the ECMC issued Spill/Release Point ID 490407. The soil sample and field screening locations are illustrated on Figures 1 and 2. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 through 5.

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 September 12, 2025, excavation activities were conducted at the Turkey Springs 1N-14HZ wellhead to address remaining impacts and five (5) confirmation soil samples were collected and analyzed for the full Table 915-1 analytical suite. Laboratory analytical results indicated that constituent concentrations were in compliance with the ECMC Table 915-1 soil standards and/or site-specific background levels (x 1.25 for metals), with the exception of pH in soil samples WH-S02@4' and WH-E02@4' and EC in soil samples WH-B02@8', WH-N02@4', WH-S02@4', and WH-W02@4'. Additional excavation activities are pending and will be summarized in a forthcoming Form 27-Supplemental update. The excavation soil sample locations are illustrated on Figure 3.

Proposed Groundwater Sampling

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

Groundwater was encountered in the wellhead excavation at approximately 8-feet below ground surface (bgs). One (1) groundwater sample (WH-GW01) was collected and submitted for benzene, toluene, ethylbenzene, and total xylenes (BTEX), naphthalene (N), 1,2,4- and 1,3,5-trimethylbenzene (TMB), by USEPA Method 8260, as well as total dissolved solids (TDS), chloride, and sulfate (inorganics). Analytical results indicated that the groundwater samples were in compliance with ECMC Table 915-1 standards and/or site-specific background standards (x 1.25 for inorganics), with the exception of TDS (1,400 mg/L) and sulfate (564 mg/L). The groundwater sample location is illustrated on Figure 3. Additional assessment activities are pending and will be summarized in a forthcoming Form 27-Supplemental update.

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 May 13, 2025, field screening of soils was conducted at four (4) sidewall locations within the cut and cap excavation and four (4) locations at ground surface adjacent to the cut and cap excavation area. 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 May 19, 2025, a soil gas survey was conducted at three (3) soil vapor points (SVP01-SVP03) installed adjacent to the former wellhead following cut and cap operations. Soil vapor point SVP-02 was not screened due to compromised tubing and SVP-03 was not screened due to no flow. GEM 5000 field readings were non-detect for methane at SVP-01. The SVP locations are illustrated on Figure 1. The SVP 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 exceeeding 915-1: 7
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet): 502

NA / ND

-- Highest concentration of TPH (mg/kg): 79.5
-- Highest concentration of SAR: 3.51
BTEX > 915-1: No
Vertical Extent > 915-1 (in feet): 8

Groundwater

Number of groundwater samples collected: 1
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet): 8
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
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 were collected from undisturbed native material adjacent to the former 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. Background groundwater samples were collected from the former wellhead, and submitted for laboratory analysis of TDS, chloride, and sulfate. Analytical results for the background soil samples are summarized in Tables 4 and 5 and background groundwater samples in Table 6. Background sample locations are presented in Figure 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?

Laboratory analytical results indicated that impacted soil and groundwater remain within the excavation area as described herein. Additional site investigation and remediation activities are pending and will be summarized in a forthcoming Form 27-Supplemental update.

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.

Impacted soil will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of excavation activities. Disposal records will be kept on file and available upon request. The excavation areas will be backfilled and contoured to match pre-existing 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 indicated that impacts remain within the excavation area as described herein. Additional site investigation and remediation activities are pending and will be summarized in a forthcoming Form 27-Supplemental update.

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.

During initial decommissioning activities groundwater was not observed within the wellhead excavation. 1-M and naph exceedances were observed in soil sample WH-B01@6'. Over-excavation activities were conducted to address exceedances of 1-M and naph at the wellhead. Organic constituent detections were not observed in subsequent confirmation soil samples in the wellhead excavation. Groundwater was observed at 8 feet bgs within the wellhead excavation. One (1) groundwater sample was collected (WH-GW01) and submitted for laboratory analysis of BTEXN, TMBs, sulfate and chloride anions, and TDS. Analytical results indicated organic compounds were not detected above laboratory reporting limits. Inorganic compounds TDS and chloride were in exceedance of the of the ECMC standards and/or site-specific background levels (x 1.25). The groundwater sample and all confirmation soil samples collected from the excavation exhibited no detections of organic constituents. Based on this data, potential hydrocarbon impacted soil does not appear to have come in contact with groundwater.

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 Project status update

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: $ 10000

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? No

Does the previous reply indicate consideration of background concentrations?

Does Groundwater meet Table 915-1 standards? No

Is additional groundwater monitoring to be conducted? Yes

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.

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. 03/18/2025

Actual Spill or Release date, or date of discovery. 06/02/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/13/2025

Proposed site investigation commencement. 05/13/2025

Proposed completion of site investigation. 04/30/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/12/2025

Proposed date of completion of Remediation. 03/31/2026

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

Analytical results indicated that impacts remain at the Turkey Springs 1N-14HZ wellhead location. Excavation and additional site assessment activities are pending and will be summarized in a forthcoming Form 27-Supplemental update.

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

Signed: Max Moran Title: Environmental Advisor

Submit Date: 11/24/2025 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: Kari Brown Date: 04/21/2026

Remediation Project Number: 40079

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
404434443	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404448945	SOIL SAMPLE LOCATION MAP
404448950	SOIL SAMPLE LOCATION MAP
404448953	SOIL SAMPLE LOCATION MAP
404448956	SOIL SAMPLE LOCATION MAP
404448958	ANALYTICAL DATA SUMMARY TABLE(S)
404448961	PHOTO DOCUMENTATION
404448963	LABORATORY ANALYTICAL REPORT
404448964	LABORATORY ANALYTICAL REPORT
404448965	LABORATORY ANALYTICAL REPORT
404448966	LABORATORY ANALYTICAL REPORT
404627757	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 12 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)