

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:

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
Address: P O BOX 173779		Phone: (720) 929-4307
City: DENVER	State: CO	Zip: 80217-3779
Contact Person: Max Moran	Email: DJRemediation_Forms@oxy.com	Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37381 Initial Form 27 Document #: 403920407

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: Request Director's Approval to establish site specific waste profile

SITE INFORMATION

Yes Multiple Facilities

Facility Type: WELL	Facility ID:	API #: 123-16634	County Name: WELD
Facility Name: HSR-CHAKNOVA 14-5	Latitude: 40.247894	Longitude: -104.803042	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SESW	Sec: 5	Twp: 3N	Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL	Facility ID:	API #: 123-18895	County Name: WELD
Facility Name: HSR-CREASON 11-5	Latitude: 40.247875	Longitude: -104.802764	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SESW	Sec: 5	Twp: 3N	Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL Facility ID: _____ API #: 123-18898 County Name: WELD
 Facility Name: HSR-BELL 12-5 Latitude: 40.248022 Longitude: -104.802831
 ** correct Lat/Long if needed: Latitude: _____ Longitude: _____
 QtrQtr: SESW Sec: 5 Twp: 3N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 492644 API #: _____ County Name: WELD
 Facility Name: HSR-Chaknova 14-5 Wellhead Latitude: 40.247894 Longitude: -104.803042
 ** correct Lat/Long if needed: Latitude: _____ Longitude: _____
 QtrQtr: SESW Sec: 5 Twp: 3N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 493022 API #: _____ County Name: WELD
 Facility Name: HSR-Creason 11-5 Flowline Latitude: 40.246767 Longitude: -104.806171
 ** correct Lat/Long if needed: Latitude: _____ Longitude: _____
 QtrQtr: SWSW Sec: 5 Twp: 3N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 493525 API #: _____ County Name: WELD
 Facility Name: HSR-Creason 11-5 Flowline Latitude: 40.246765 Longitude: -104.805881
 ** correct Lat/Long if needed: Latitude: _____ Longitude: _____
 QtrQtr: SESW Sec: 5 Twp: 3N Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Occupied Building & Surface Water
 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

Ponds 170 feet (ft) south and 900 ft southeast. Commercial buildings 200 ft northeast and 1020 ft southeast. County Road 490 ft south. Livestock 660 ft southeast. Water well 970 ft southeast. Occupied building 980 ft southeast. Platte Valley Canal 1250 ft south. Agriculture. Groundwater at approximately 3 ft below ground surface

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
UNDETERMINED	GROUNDWATER	TBD	Groundwater Samples/Laboratory Analytical Results
Yes	SOILS	TBD	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 & cap operations were completed at the HSR-Creaseon 11-5, HSR-Bell 12-5, & HSR-Chaknova 14-5 wellheads on 12/8/25. Groundwater was encountered in the flowline potholes at a depth of 3 ft bgs. Visual inspection and field screening of soil around the wellhead & associated pumping equipment were conducted following cut & cap operations. Soil samples [B01(11-5)@5', B01(12-5)@5', and B01(14-5)@5'] were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. The flowline associated with the wellheads were removed between 12/8/25 & 1/20/26. Samples were collected from the locations where the flowline risers were disconnected from the wellheads [WH-RISER(11-5)@4', WH-RISER(12-5)@4', & WH-RISER(14-5)@4'] & from the separators [SEP-RISER(11-5)@3', SEP-RISER(12-5)@3', & SEP-RISER(14-5)@3'], & from where groundwater was present in the flowline potholes [FL01(11,12,14-5)@3', FL02(11,12,14-5)@3', & FL03(11,12,14-5)@3']. Samples were submitted for full list Table 915-1 constituents to determine if a release occurred. Lab results indicate that benzene, toluene, ethylbenzene, total xylenes (BTEX), 1,2,4- & 1,3,5-trimethylbenzene (TMB), polycyclic aromatic hydrocarbon (PAH), sodium adsorption ratio (SAR), pH, arsenic, cadmium, lead &/or selenium impacts exceeding the Table 915-1 allowable levels & background levels are present at the WH-RISER(12-5), WH-RISER(14-5), FL01(11,12,14-5), & SEP-RISER(11-5) locations. As such, Form 19 Initial/Supplemental Spill/Release Reports (Doc. Nos. 404478899, 404525449, & 404577575) were submitted on 12/19/25, 1/30/26, & 3/13/26 & the ECMC issued Spill IDs 492644, 493022, & 493525. Given the location in proximity to identified impacts at the Bell12-5, Creaseon11-5 Facility (Rem # 37383), the SEP-RISER(11-5) impacts were reported with and subsequently excavated under this remediation number. The PID readings & soil sample results are summarized in Tables 1 & 2, respectively.

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):

Between 12/8/25 and 1/20/26 soil samples were collected from the wellhead excavations, locations where flowline risers were disconnected from the wellheads and from the separators, and from where groundwater was present in the flowline potholes at depths ranging from 3 ft bgs to 5 ft bgs. The samples were submitted for analysis of full list Table 915-1 constituents, using ECMC approved methods. Laboratory analytical results indicate that BTEX, 1,2,4- and 1,3,5-TMB, PAH, SAR, pH, arsenic, cadmium, lead and/or selenium impacts exceeding the Table 915-1 allowable levels and background levels are present at the WH-RISER(12-5), WH-RISER(14-5), FL01(11,12,14-5), and SEP-RISER(11-5) locations. Given the location in proximity to identified impacts at the Bell12-5, Creaseon11-5 Facility (Rem # 37383), the SEP-RISER(11-5) impacts were reported with and subsequently excavated under this remediation number. The lab reports are attached. The wellhead and flowline are depicted on Figures 1 and 2.

Proposed Groundwater Sampling

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

On 1/20/2026, three groundwater samples [GW-FL01(11,12,14-5)@3', GW-FL02(11,12,14-5)@3', and GW-FL03(11,12,14-5)@3'] were collected from the flowline potholes at a depth of 3 ft bgs. The groundwater samples were submitted for analysis of full list Table 915-1 constituents in groundwater. Background groundwater sample [MW08 (Rem No. 5140)] was collected for analysis of Table 915-1 inorganic constituents in groundwater as part of Remediation project No. 5140. Laboratory analytical results indicate that groundwater is in compliance with Table 915-1 allowable levels or background levels and all organic constituents were below the lab reporting limits. Based on compliant groundwater in contact with impacted soil at the FL01 location, groundwater monitoring wells will be installed to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents. The groundwater sample analytical results are summarized in Table 3.

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 12/8/2025 and 1/21/2026, visual inspection and field screening of soil were conducted at twelve sidewall locations within each cut and cap excavation area, twelve locations at the ground surface adjacent to the cut and cap excavation area, and four flowline potholes. 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. A photographic log is attached.

On 12/15/2025, a soil gas survey was conducted at fifteen soil vapor points installed adjacent to the former wellhead location following cut and cap operations. GEM 5000 field readings were all non-detect for methane at all soil vapor points. The soil vapor point locations are illustrated on Figure 1. The soil vapor field form is included as an attachment.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil	NA / ND
Number of soil samples collected <u>12</u>	-- Highest concentration of TPH (mg/kg) <u>388</u>
Number of soil samples exceeding 915-1 <u>12</u>	-- Highest concentration of SAR <u>7.33</u>
Was the areal and vertical extent of soil contamination delineated? <u>No</u>	BTEX > 915-1 <u>Yes</u>
Approximate areal extent (square feet) <u>1160</u>	Vertical Extent > 915-1 (in feet) <u>5</u>
Groundwater	
Number of groundwater samples collected <u>3</u>	ND Highest concentration of Benzene (µg/l) <u> </u>
Was extent of groundwater contaminated delineated? <u>No</u>	ND Highest concentration of Toluene (µg/l) <u> </u>

Depth to groundwater (below ground surface, in feet) 3

ND Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed 0

ND Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 0

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?

Eighteen background soil samples were collected from the native material outside of the wellhead excavations. Background soil samples were submitted for laboratory analysis of pH, electrical conductivity (EC), SAR, boron and Table 915-1 metals using ECOM approved methods. Analytical results indicate that arsenic, barium, cadmium, hexavalent chromium, lead, and nickel are naturally high in the native soil. The background soil sample analytical results are summarized in Table 2. The background soil sample locations are illustrated on Figure 2.

One background groundwater sample was collected as part of remediation project No. 5140 for analysis of full list Table 915-1 constituents in groundwater. The background groundwater sample results are summarized in Table 3. The background groundwater location is depicted 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?

Excavation activities are on hold and details will be provided in a subsequent Form 27 Supplemental report.

Based on compliant groundwater in contact with impacted soil, groundwater monitoring wells will be installed at the FL01 location to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater.

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 from the wellhead cut and cap and FL01(11,12,14-5) excavations will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of assessment activities. Disposal records are kept on file and available upon request. The excavation areas will be backfilled and contoured to match pre-existing conditions.

The naphthalene, pH, arsenic, cadmium, lead, and selenium impacts at the SEP-RISER(11-5) location were excavated as part of Remediation No. 37383 and waste quantities associated with the excavation will be submitted in a Form 27 Supplemental report under that remediation number.

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.

Impacts identified at SEP-RISER(11-5) were excavated as part of Remediation No. 37383. Laboratory data indicate that BTEX, 1,2,4- and 1,3,5-TMB, PAH, SAR, pH impacts exceeding the ECOM Table 915-1 allowable levels and background levels remain in the WH-RISER(12-5), WH-RISER(14-5), FL01(11,12,14-5) locations. Groundwater was encountered at approximately 3 ft bgs. Laboratory analytical results indicate that groundwater is in compliance with Table 915-1 allowable levels or background levels and all organic constituents were below the lab reporting limits. Based on compliant groundwater in contact with impacted soil at the FL01 location, groundwater monitoring wells will be installed to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or ECOM 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.

Based on compliant groundwater in contact with impacted soil, groundwater monitoring wells will be installed at the FL01 location to verify that no dissolved-phase impacts are present. Following installation, the wells will be sampled for full list Table 915-1 constituents in groundwater.

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? _____

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. 01/30/2026

Actual Spill or Release date, or date of discovery. 01/29/2026

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/08/2025

Proposed site investigation commencement. 12/08/2025

Proposed completion of site investigation. 09/25/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/08/2025

Proposed date of completion of Remediation. 09/25/2027

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

Per Rule 915.e.(2).C, discrete grab samples [WH-RISER(12-5)@4', WH-RISER(14-5)@4', and FL01(11,12,14-5)@3'] were collected from the most impacted material available in the source area on 12/8/2025 and 1/20/2026. The laboratory report and results summary table are attached. Based on these results, KMOG requests approval to amend confirmation sampling and analysis to only include hydrocarbon and metal analytes detected above laboratory reporting limits and reclamation parameters exceeding Table 915-1 allowable levels, specifically: for WH-RISER(12-5)@4': TPH, pH, boron, arsenic, barium, and hexavalent chromium. For WH-RISER(14-5)@4' : TPH, BTEX, 1,2,4- and 1,3,5- TMBs, PAHS, pH, boron, arsenic, barium, hexavalent chromium, and lead. For FL01(11,12,14-5)@3': SAR, boron, arsenic, barium.

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: _____

Email: DJRemediation_Forms@oxy.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with ECOMC Rules and applicable orders and is hereby approved.

ECMC Approved: _____

Date: _____

Remediation Project Number: 37381

COA Type**Description**

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**

404536444	LABORATORY ANALYTICAL REPORT
404536445	LABORATORY ANALYTICAL REPORT
404536446	LABORATORY ANALYTICAL REPORT
404536447	LABORATORY ANALYTICAL REPORT
404544886	SOIL SAMPLE LOCATION MAP
404544971	OTHER
404590439	LABORATORY ANALYTICAL REPORT
404590460	PHOTO DOCUMENTATION
404594680	ANALYTICAL DATA SUMMARY TABLE(S)
404594685	SOIL SAMPLE LOCATION MAP

Total Attach: 10 Files

General Comments**User Group****Comment****Comment Date**

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)