

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 INFORMATION

Name of Operator: <u>KERR MCGEE OIL & GAS ONSHORE LP</u>	Operator No: <u>47120</u>	Phone Numbers
Address: <u>P O BOX 173779</u>		Phone: <u>(720) 929-4306</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80217-3779</u>		Mobile: <u>()</u>
Contact Person: <u>Erik Mickelson</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 34638 Initial Form 27 Document #: 403711424

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: <u>WELL</u>	Facility ID: _____	API #: <u>123-09362</u>	County Name: <u>WELD</u>
Facility Name: <u>STREAR SIDNEY GU 1</u>	Latitude: <u>40.120220</u>	Longitude: <u>-104.862640</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWSW</u>	Sec: <u>23</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>489727</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Strear Sidney GU 1 Soil Vapor</u>	Latitude: <u>40.120220</u>	Longitude: <u>-104.862640</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWSW</u>	Sec: <u>23</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use 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

Multiple buildings and livestock holding pens are located within ¼ mile of the wellhead.
A building is located approximately 1060 feet northwest of the wellhead.
The nearest domestic water well is located approximately 150 feet to the east of the wellhead.
An area with wetland characteristics is located approximately 1000 feet north of the wellhead.

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	GROUNDWATER	Groundwater not encountered	Groundwater samples/laboratory analytical results
Yes	SOILS	TBD	Soil Vapor 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 and flowline removal activities were completed at the Strear Sidney GU 1 wellhead from August 1, 2024 - March 12, 2025. Groundwater was not encountered in the wellhead cut and cap excavation area or flowline removal potholes. Visual inspection and field screening of soils around the well, associated pumping equipment, and flowline removal potholes was conducted following wellhead cut and cap and flowline removal activities and soil samples (WH-B01@6', FL-B01@4', FL-B04@4', FL-B08@4', and FL-B13@3') were submitted for laboratory analysis to determine if a release occurred. Laboratory analytical results indicated that pH in soil sample WH-B01@6' and lead (Pb) in soil sample FL-B01@4' exceeded ECMC Table 915-1. As such, verification samples FL-B01R@4' and WH-B01V@6' were collected to verify the Pb and/or pH exceedances. Analytical results for samples FL-B01R@4', FL-B13@3' and WH-B01V@6' were in compliance with Table 915-1 Standards or site-specific background limits. Subsequent assessment activities at the wellhead will be summarized in a forthcoming Form 27-Supplemental. 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 are presented in Table 1. Soil analytical results are summarized in Tables 2 through 5. The wellhead soil sample and field screening locations are illustrated on Figure 2. The flowline soil sample locations are illustrated on Figure 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 August 1, 2024 - March 12, 2025 soil samples were collected from the base of the cut and cap excavation (WH-B01@6'), locations where the flowline risers were disconnected at the wellhead (FL-B01@4), separator (FL-B13@3'), and directional changes (FL-B04@4' and FL-B08@4') and submitted for laboratory analysis to determine if a release occurred. Analytical results indicated that the pH in soil sample WH-B01@6' and lead (Pb) in soil sample FL-B01@4' exceeded ECMC Table 915-1. As such, verification samples FL-B01R@4' and WH-B01V@6' were collected to verify the Pb and/or pH exceedances. Analytical results for samples FL-B01R@4', FL-B13@3' and WH-B01V@6' were in compliance with Table 915-1 Standards or site-specific background limits. Soil vapor assessment activities at the wellhead are currently in process and will be summarized in a forthcoming Form 27-Supplemental.

Proposed Groundwater Sampling

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):

During plugging and abandonment activities at the Strear Sidney GU 1 wellhead, five (5) shallow soil vapor points (SVPs) were installed in the vicinity of the wellhead. On March 14, 2025, methane was detected with field screening equipment at SVP-01 and SVP-05. Soil vapor samples were collected from 5 SVPs using IsoTubes™ and an IsoTube™ sampling manifold in conjunction with the pump on a GEM 5000. The samples were submitted to IsoTech for gas composition analysis. Results from the gas composition analysis indicated the presence of thermogenic gas. As such, a Form 19 Initial/Supplemental Spill/Release Report was submitted on April 14, 2025 and the ECMC issued Spill/Release ID 489727. An investigation into the nature and source of the soil gas is on-going. Additional details will be provided in a supplemental Form 27 report (Remediation No. 34638; Form 27 Initial Document No. 403711424).

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 7
Number of soil samples exceeding 915-1 6
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 0

NA / ND

-- Highest concentration of TPH (mg/kg) 129
-- Highest concentration of SAR 1.26
BTEX > 915-1 No
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 _____

____ 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?

Background soil samples WH-BG01@3'-WH-BG04@3' and WH-BG01@6'-WH-BG04@6' were collected from native material adjacent to the wellhead cut and cap excavation area. Additional background samples from the Debeque V 27-1 wellhead (~0.56mi SW) were collected from similar soil type (silty sand), depth (3'-6'), and land use. 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.

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?

An investigation into the nature and source of the stray soil gas is on-going. Results of the subsequent soil gas assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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.

An investigation into the nature and source of the stray soil gas is on-going. Results of the subsequent soil gas assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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.

An investigation into the nature and source of the stray soil gas is on-going. Results of the subsequent soil gas assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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.

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. 01/24/2024

Actual Spill or Release date, or date of discovery. 04/03/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/01/2024

Proposed site investigation commencement. 08/01/2024

Proposed completion of site investigation. 07/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/03/2025

Proposed date of completion of Remediation. 12/31/2025

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

Per COA on Doc. Nos. 403711424 and 404192329, KMOG will adhere to a quarterly reporting schedule for future Form 27-Supplemental updates.

Per COAs on Doc. No 404192329, Spill ID 489727 was reported to the ECMC once laboratory analytical results were received indicating the detected soil gas was thermogenic and not biogenic. Additionally, this form contains the current map of the subject location and includes current screening and sampling location, excavation extents, laboratory analytical and GPS data, and photo documentation.

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: 06/03/2025 _____

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: 01/16/2026 _____

Remediation Project Number: 34638 _____

COA Type**Description**

	Off location soil sample locations are not approved by ECMC as they are not within the same land use or the same NRCS mapped soil type. Therefore all background samples from the Debeque V 27-1 wellhead shall be omitted from future background determination calculations.
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**

404041603	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404100145	SITE MAP
404148954	OTHER
404148984	SOIL SAMPLE LOCATION MAP
404150268	PHOTO DOCUMENTATION
404150312	LABORATORY ANALYTICAL REPORT
404150313	LABORATORY ANALYTICAL REPORT
404150314	LABORATORY ANALYTICAL REPORT
404150315	LABORATORY ANALYTICAL REPORT
404151025	SOIL SAMPLE LOCATION MAP
404165113	ANALYTICAL DATA SUMMARY TABLE(S)
404208660	LABORATORY ANALYTICAL REPORT
404209079	LABORATORY ANALYTICAL REPORT
404209263	SOIL SAMPLE LOCATION MAP
404510042	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 15 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)