

State of Colorado
Energy & Carbon Management Commission

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Document Number:

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Receive Date:

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: <u>NOBLE ENERGY INC</u>	Operator No: <u>100322</u>	Phone Numbers
Address: <u>1099 18TH STREET SUITE 1500</u>		Phone: <u>(970) 313-5582</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>()</u>
Contact Person: <u>Jason Davidson</u>	Email: <u>jason.davidson@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 25588 Initial Form 27 Document #: 403196275

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>123-13356</u>	County Name: <u>WELD</u>
Facility Name: <u>OCOMA G 25-16</u>	Latitude: <u>40.277780</u>	Longitude: <u>-104.604080</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>25</u>	Twp: <u>4N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>
Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>483780</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Ocoma G 25-16</u>	Latitude: <u>40.277780</u>	Longitude: <u>-104.604080</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>25</u>	Twp: <u>4N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SW _____

Most Sensitive Adjacent Land Use Grassland _____

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? No _____

Other Potential Receptors within 1/4 mile

NA

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste | <input type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <input checked="" type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input checked="" type="checkbox"/> Condensate | <input type="checkbox"/> Pigging Waste | |
| <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Rig Wash | |
| <input type="checkbox"/> Drill Cuttings | <input type="checkbox"/> Spent Filters | |
| | <input type="checkbox"/> Pit Bottoms | |
| | <input type="checkbox"/> Other (as described by EPA) | _____ |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	NA	Lab Analysis if Encountered
Yes	SOILS	10' X 10' X 6' BGS	Lab Analysis and Field Screening

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the OCOMA G25-16 wellhead cut and cap and flowline removal. Approximately 954' of flowline was abandoned-in-place due to field constraints in accordance with Form 44 document #403487308. The wellhead was cut and capped per ECMC rules. Since the flowline is abandoned in place, soil samples were collected using a hand auger in accordance with the proposed site investigation map attached to the approved ECMC Document Number 404103921.

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):

Five (5) grab soil sample were collected at the base of the excavation and the area showing the highest degree of impact during field screening activities at the wellhead excavation. Additionally, soil samples were collected at the directional changes of the abandoned in place flowline per the COA on ECMC document number 403196275. Two (2) soil samples were collected at the A and B points of the flowline during abandonment. Soil samples were analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons) organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, and boron. Additionally, three (3) soil samples collected from the wellhead excavation were analyzed for metals in soil per ECMC Table 915-1. All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

Proposed Groundwater Sampling

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

If groundwater is encountered during the site investigation a grab groundwater sample will be collected and analyzed for all organic compounds and inorganic compounds per ECMC Table 915-1.

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):

Visual inspection of the wellhead and flowline areas occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results were included on ECMC Document Number 403417186.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 16
Number of soil samples exceeding 915-1 1
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 100

NA / ND

-- Highest concentration of TPH (mg/kg) 85
-- Highest concentration of SAR 0.815
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 10

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?

On February 5, 2025, twenty-five background samples were collected from five discrete locations (BKG01-BKG05) adjacent to the flowline and analyzed for metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. Backgrounds were collected from depths ranging between 2-3 ft and 8-9 ft bgs. The maximum background concentration for pH was observed to be 8.73. The maximum background concentration with a 1.25x multiplier applied for lead was calculated to be and 9.45 mg/kg. The pH and lead concentrations observed in SSI soil sample SB01@9-10' were observed to be in exceedance of the applicable ECMC regulatory standards and above background concentrations.

Due to an equipment error during sampling activities, the locations of BKG03 and BKG05 cannot be confirmed and therefore are not included in the background data set to compare to site inorganic and metals concentrations.

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?

Based on the results of the February 2025 site investigation activities, a supplemental site investigation (SSI) will be conducted to delineate the pH and lead exceedances observed at soil sample SB01@9-10'. Soil samples will be submitted for analysis of the full ECMC Table 915-1 suite. The proposed soil boring locations are illustrated on Figure 4. The SSI will be completed in accordance with the proposed implementation schedule, and the results will be submitted on a subsequent Supplemental Form 27.

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.

A remedial excavation was completed between May 17, 2024 and May 20, 2024 to remove soil impacted with hydrocarbon compounds identified during the wellhead decommissioning in samples WH-SS-01 @ 5', WH-SS-02 @ 5', and WH-FS-01 @ 6'. The final remedial excavation extent measured 30-ft by 30-ft by 9-ft bgs. A total of 300 cubic yards of soil was transported off-site for disposal at the Waste Management Buffalo Ridge Landfill in Keenesburg, CO.

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.

May 2024 excavation confirmatory soil samples were collected and analyzed for organic compounds in soil per ECMC Table 915-1, arsenic, barium, and lead, in accordance with the approved amended sampling plan (ECMC Document #403609905). Based on the results of the remedial excavation, all soil impacted with hydrocarbon compounds above ECMC Table 9151 protection of groundwater soil screening levels was successfully removed. A summary of excavation activities was included in ECMC Document No. 403918792.

A supplemental site investigation (SSI) was conducted on February 4 and 5, 2025, to confirm the absence of hydrocarbon impacts along the flowline and to confirm Table 915-1 compliance at the previously collected soil samples at the wellhead. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations.

Based on the remaining analytes, a supplemental site investigation (SSI) will be conducted to delineate the pH and lead exceedances observed at soil sample SB01 @9-10'. Soil samples will be submitted for analysis of the full ECMC Table 915-1 suite. The proposed soil boring locations are illustrated on Figure 4. The SSI will be completed in accordance with the proposed implementation schedule, and the results will be submitted on a subsequent Supplemental Form 27.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 300

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____ 160000

_____ 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.

Groundwater was not encountered during decommissioning, excavation, or supplemental site investigation activities.

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 Supplemental Site Investigation Summary and Supplemental Site Investigation Proposal _____

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.

Noble intends to directly address the costs of remediation at the locations as part of our asset retirement obligation process and operations. Noble has general liability insurance (policies MWZZ316714 and MWZX316724) and financial assurance in compliance with ECMC rules. Records are available on the ECMC's website. The cost for remediation is an estimate only, costs may change upwards or downward based on site-specific information. Noble makes no representation or guarantees as to the accuracy of the estimate.

Operator anticipates the remaining cost for this project to be: \$ 50000 _____

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 _____ 300

E&P waste (solid) description Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Waste Management Buffalo Ridge Landfill

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? 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? _____

Does the previous reply indicate consideration of background concentrations? _____

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.

Reclamation will be in accordance with ECMC 1000 Series Rules.

Is the described reclamation complete? Yes

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. 03/29/2023

Proposed date of completion of Reclamation. 12/07/2026

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. 10/06/2022

Actual Spill or Release date, or date of discovery. 01/25/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/16/2023

Proposed site investigation commencement. _____

Proposed completion of site investigation. 12/07/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/07/2025

Proposed date of completion of Remediation. 06/07/2026

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:

The implementation schedule has been changed due to the the necessity for supplemental site investigation (SSI) activities at the site. The SSI will be completed following the approval of this Form 27.

OPERATOR COMMENT

This Form 27 is being submitted to summarize the February 2025 supplemental site investigation (SSI) activities at the Ocoma G25-16 wellhead and flowline location.

A SSI was conducted on February 4 and 5, 2025, to confirm the absence of hydrocarbon impacts along the flowline and to confirm Table 915-1 compliance at the previously collected soil samples at the wellhead.

Twenty-five background samples were collected from five discrete locations (BKG01-BKG05) adjacent to the flowline and analyzed for metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. Due to an equipment error during sampling activities, the locations of BKG03 and BKG05 cannot be confirmed and therefore are not included in the background data set to compare to site inorganic and metals concentrations.

Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations.

Based on the remaining analytes, a supplemental site investigation (SSI) will be conducted to delineate the pH and lead exceedances observed at soil sample SB01 @ 9-10'. Soil samples will be submitted for analysis of the full ECMC Table 915-1 suite. The proposed soil boring locations are illustrated on Figure 4. The SSI will be completed in accordance with the proposed implementation schedule, and the results will be submitted on a subsequent Supplemental Form 27.

Pursuant to Rule 913.e, Supplemental Form 27s will be submitted on a quarterly schedule to provide updates and progress of the remediation until closure criteria is met.

NOTE: Operator requests that "tas-chevron-2@tasman-geo.com" receive notification of ECMC's response to this submission.

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

Signed: Jimmy Webster

Title: Environmental Consultant

Submit Date: _____

Email: tas-chevron-2@tasman-geo.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: 25588

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

404229218	SITE INVESTIGATION REPORT
404229225	LABORATORY ANALYTICAL REPORT
404229228	LABORATORY ANALYTICAL REPORT
404229230	LABORATORY ANALYTICAL REPORT

Total Attach: 4 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)