

State of Colorado
Energy & Carbon Management Commission

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



Document Number:
404299194
Receive Date:
07/30/2025

Report taken by:
Taylor Robinson

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: NOBLE ENERGY INC	Operator No: 100322	Phone Numbers Phone: (970) 730-7281 Mobile: ()
Address: 1099 18TH STREET SUITE 1500		
City: DENVER	State: CO	Zip: 80202
Contact Person: Dan Peterson	Email: danpeterson@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 36226 Initial Form 27 Document #: 403828818

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: LOCATION	Facility ID: 333284	API #: _____	County Name: WELD
Facility Name: ROACH N-65N67W 14NWSE	Latitude: 40.399380	Longitude: -104.859730	
** correct Lat/Long if needed: Latitude: 40.399751		Longitude: -104.859862	
QtrQtr: NWSE	Sec: 14	Twp: 5N	Range: 67W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 488133	API #: _____	County Name: WELD
Facility Name: Roach N-65N67W 14NWSE	Latitude: 40.399751	Longitude: -104.860129	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWSE	Sec: 14	Twp: 5N	Range: 67W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 488204 API #: _____ County Name: WELD
Facility Name: Roach N-65N67W 14NWSE Latitude: 40.399751 Longitude: -104.860129
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NWSE Sec: 14 Twp: 5N Range: 67W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW Most Sensitive Adjacent Land Use Grassland

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

Freshwater Emergent Wetland 0.22mi SE
Commercial 0.08/0.12/0.19/0.2mi W, 0.24mi NW
Apparent Pond 0.22mi W

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 and field screening, if encountered
Yes	SOILS	Refer to Tables and Figures	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.

A site investigation was conducted pursuant to ECMC Rule 911 at the RAGAN ROACH T5N-R67W-S1 L01 Facility and Tank Battery location.

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):

Grab confirmation soil samples were collected from the produced water vessel(s) excavation, beneath the ground oil tank(s), at the risers for the flowline (s) and dumpline(s) of any separator(s). In addition, the on-site dump lines located between the separator and tank battery were removed by pulling from either end. Soil samples were analyzed by a certified laboratory for the full extent of Table 915-1, including but not limited to: TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons) organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, metals, and boron. 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 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 at the tank battery area occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses. Additionally, discrete soil samples were collected from the base of the excavation and excavation sidewall in areas most likely to be impacted and exhibiting the highest field screened VOC concentration. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, was attached to ECMC Document No. 403916727.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 8

-- Highest concentration of TPH (mg/kg) 490

Number of soil samples exceeding 915-1 1 -- Highest concentration of SAR 0.93
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No
 Approximate areal extent (square feet) 200 Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l) _____
 Was extent of groundwater contaminated delineated? Yes Highest concentration of Toluene (µg/l) _____
 Depth to groundwater (below ground surface, in feet) _____ Highest concentration of Ethylbenzene (µg/l) _____
 Number of groundwater monitoring wells installed _____ Highest concentration of Xylene (µg/l) _____
 Number of groundwater samples exceeding 915-1 _____ 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 September 10, 2024, four background soil samples were collected from one discrete location (BKG01) at depths ranging from approximately 0-0.5 ft to 6 ft bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron.

On May 5, 2025, fifteen background soil samples were collected from five discrete locations (BKG02 - BKG06) at depths ranging from approximately 0.5 ft to 4.5 ft bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The maximum background concentration for pH was observed to be 9.12. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and lead were calculated to be 5.26 mg/kg, 205 mg/kg, and 12.1 mg/kg, respectively. The lead concentration observed in decommissioning soil sample PWV01-B@6' remains above the applicable ECMC regulatory standard and background levels.

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 May 2025 remedial excavation sampling activities, excavation activities were re-initiated on June 9, 2025, to remove the hydrocarbon impacted material in the vicinity of soil sample SS03@0.5'. Soil samples were collected for analysis of the full ECMC Table 915-1 suite. Analytical results are pending at the time of this submittal. A summary of June 2025 remedial excavation activities will be included on a subsequent Form 27, and additional site investigation activities will be proposed as necessary.

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 May 5, 2025, excavation activities were conducted to remove the hydrocarbon impacted material in the vicinity of soil samples AST01@0-6" and AST02@0-6". Approximately 120 cubic yards of impacted material was removed from the excavation and transported to the Waste Management Ault Facility for disposal under Noble waste manifests.

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.

On May 5, 2025, remedial excavation activities were conducted in the vicinity of soil samples AST01@0-6" and AST02@0-6" to remove the organic exceedances observed during decommissioning activities. Eight soil samples were collected from the base and sidewalls of the remedial excavation and submitted for laboratory analysis of the full Table 915-1 analytical suite.

Analytical results indicated that the concentrations of 1-methylnaphthalene and 2-methylnaphthalene were in exceedance of the applicable ECMC regulatory standards in soil sample SS03@0.5'. Consequently, excavation activities were re-initiated on June 9, 2025, to remove the hydrocarbon impacted material in the vicinity of the aforementioned soil sample location. Soil samples were collected for analysis of the full ECMC Table 915-1 suite. Analytical results are pending at the time of this submittal, and will be included on a subsequent 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) _____ 120

_____ 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.

Groundwater was not encountered during decommissioning or excavation 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 Remedial Excavation Summary & 2Q25 TU for Additional Remedial Excavation Activities _____

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 MWZZ 316714 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? Yes

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

No beneficial use.

Volume of E&P Waste (solid) in cubic yards _____ 120

E&P waste (solid) description Hydrocarbon Impacted Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Ault Waste Mangement

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 reseeded 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. 09/10/2024

Proposed date of completion of Reclamation. 01/30/2027

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. 05/16/2024

Actual Spill or Release date, or date of discovery. 09/11/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/10/2024

Proposed site investigation commencement. 07/30/2025

Proposed completion of site investigation. 01/30/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/30/2026

Proposed date of completion of Remediation. 07/30/2026

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 updated to reflect the completion of the May 2025 and subsequent June 2025 remedial excavation activities at the site. Remedial excavation activities were re-initiated on June 9, 2025, and analytical results are pending at the time of this submittal. A summary of remedial excavation activities will be included on a subsequent Form 27, and additional site investigation activities will be proposed as necessary.

OPERATOR COMMENT

This Supplemental Form 27 serves as a re-submittal of ECMC Document Number 404230354, and to summarize the May 2025 remedial excavation activities at the Roach N-65N67W 14 NWSE tank battery location.

ECMC Document Number 404230354 was submitted on June 12, 2025, and subsequently denied on July 24, 2025, with the following comment:

"ECMC has denied this form without technical review for the following reasons: ECMC cannot alter the form as requested "NOTE: Operator requests that taschevron5@tasman-geo.com receive notification of ECMC's response to this submission."

The aforementioned sentence has been removed from this submittal.

On May 5, 2025, remedial excavation activities were conducted in the vicinity of soil samples AST01@0-6" and AST02@0-6" to remove the organic exceedances observed during decommissioning activities. Eight soil samples were collected from the base and sidewalls of the remedial excavation and submitted for laboratory analysis of the full Table 915-1 analytical suite.

Fifteen background soil samples were collected from five discrete locations (BKG02 - BKG06) at depths ranging from approximately 0.5 ft to 4.5 ft bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The maximum background concentration for pH was observed to be 9.12. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and lead were calculated to be 5.26 mg/kg, 205 mg/kg, and 12.1 mg/kg, respectively. The lead concentration observed in decommissioning soil sample PWV01-B@6' remains above the applicable ECMC regulatory standard and background levels.

Analytical results indicated that the concentrations of 1-methylnaphthalene and 2-methylnaphthalene were in exceedance of the applicable ECMC regulatory standards in soil sample SS03@0.5'. Consequently, excavation activities were re-initiated on June 9, 2025, to remove the hydrocarbon impacted material in the vicinity of the aforementioned soil sample location. Soil samples were collected for analysis of the full ECMC Table 915-1 suite. Analytical results are pending at the time of this submittal. A summary of June 2025 remedial excavation activities will be included on a subsequent Form 27, and additional site investigation activities will be proposed as necessary.

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.

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: 07/30/2025

Email: jwebster@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: Taylor Robinson

Date: 10/16/2025

Remediation Project Number: 36226

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
404299194	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404299291	SITE INVESTIGATION REPORT
404299293	LABORATORY ANALYTICAL REPORT
404393692	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)