

State of Colorado  
Energy & Carbon Management Commission

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404351362  
Receive Date:  
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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	<b>Phone Numbers</b>
Address: 1099 18TH STREET SUITE 1500		Phone: (970) 304-5000
City: DENVER State: CO Zip: 80202		Mobile: ( )
Contact Person: Dan Peterson	Email: Rbueuf27@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



# 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
No	GROUNDWATER	Not impacted	Lab analysis and field screening, if encountered
No	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, grab groundwater samples 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, is attached to this Form 27.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected     3    

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_

Number of soil samples exceeding 915-1 0 -- Highest concentration of SAR 0.131

Was the areal and vertical extent of soil contamination delineated? Yes            BTEX > 915-1 No

Approximate areal extent (square feet) 0 Vertical Extent > 915-1 (in feet) 0

**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 06/10/24 and 05/05/25, nineteen background soil samples were collected from six discrete locations (BKG01-BKG06) at depths ranging from approximately 0-6" and 6 feet bgs. All background soil samples were analyzed for pH, SAR, EC, boron, and metals in soil per ECMC Table 915-1.  
  
A desktop review of background analytical data in the nearby area was conducted. The Phillips PC N24-19 project (REM #35714) is located ~1 mile southeast of the Roach N-65N67W 14NWSE tank battery location. The sites are both located adjacent to agricultural operations and are classified within similar USDA soil classifications of loam. Based on the results of the desktop review, background samples collected from the Phillips PC N24-19 project were used to compare site inorganic and metals concentrations at the Roach N-65N67W 14NWSE facility.

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?

Background analytical results for samples collected at the Roach N-65N67W 14NWSE and Phillips PC N24-19 projects indicated that the maximum background concentration for pH was observed to be 9.17. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and lead were calculated to be 5.98 mg/kg, 290 mg/kg, and 23.1 mg/kg respectively.  
  
Based on the results, no further investigation is required at this time.

**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.  
  
Excavation activities were re-initiated on June 9, 2025, to remove the hydrocarbon impacted material remaining in-situ at soil sample SS03@0.5'. Approximately 30 cubic yards of impacted material was removed from the excavation and transported to the Waste Management Ault Facility for disposal under Noble waste manifests.

**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.

On May 05, 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'. A detailed summary of May 2025 remedial excavation activities was included on ECMC Document Number 404299194, which is in-process and pending approval at the time of this submittal.

Excavation activities were re-initiated on June 9, 2025, to remove the hydrocarbon impacted material remaining in-situ at soil sample SS03@0.5'. Three soil samples were collected from the base and sidewalls of the final excavation extent. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil samples. Based on the results, the hydrocarbon impacted material observed during decommissioning and May 2025 remedial excavation activities has been fully removed.

Following the completion of remedial excavation activities, a desktop review of nearby background soil sample analytical data was conducted. The Phillips PC N24-19 project (REM #35714) is located ~1 mile southeast of the Roach N-65N67W 14NWSE tank battery location. The sites are both located adjacent to agricultural operations and are classified within similar USDA soil classifications of loam. Based on the results of the desktop review, background samples collected from the Phillips PC N24-19 project were used to compare site inorganic and metals concentrations at the Roach N-65N67W 14NWSE facility.

### Soil Remediation Summary

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 150

\_\_\_\_\_ 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.

No groundwater was 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 and No Further Action (NFA) Request

## 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: \$ 0

## 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 150

E&P waste (solid) description Hydrocarbon Impacted Soil

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-ECMC Disposal Facility: Ault Waste Management

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? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

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. 09/10/2024

Proposed date of completion of Reclamation. 06/09/2026

## 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. 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. 06/09/2025

Proposed completion of site investigation. 06/09/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/09/2025

Proposed date of completion of Remediation. 06/09/2025

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:

No additional investigation is required at this time. The proposed completion of remediation date has been adjusted to the supplemental site investigation completion date.

**OPERATOR COMMENT**

This Form 27 is being submitted to summarize remedial excavation activities and to request a No Further Action (NFA) determination for the Roach N-65N67W 14NWSE tank battery location.

On 05/05/25, remedial excavation activities were conducted in the vicinity of soil samples AST01 and AST02 to remove the organic exceedances observed during decommissioning activities. 8 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 & 2-methylnaphthalene were exceeding in soil sample SS03. A detailed summary of May 2025 remedial excavation activities was included on ECMC Document Number 404299194, which is in-process and pending approval at the time of this submittal.

Excavation activities were re-initiated on 6/9/25, to remove the hydrocarbon impacted material remaining in-situ at soil sample SS03. 3 soil samples were collected from the base and sidewalls of the final excavation extent. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil samples. Based on the results, the hydrocarbon impacted material observed during decommissioning and May 2025 remedial excavation activities has been fully removed.

Following the completion of remedial excavation activities, a desktop review of nearby background soil sample analytical data was conducted. The Phillips PC N24-19 project (REM #35714) is located ~1 mile southeast of the Roach N-65N67W 14NWSE tank battery location. The sites are both located adjacent to agricultural operations and are classified within similar USDA soil classifications of loam. Based on the results of the desktop review, background samples collected from the Phillips PC N24-19 project were used to compare site inorganic and metals concentrations at the Roach N-65N67W 14NWSE facility. The relative distance between the two sites is illustrated on Figure 5.

Background analytical results for samples collected at the Roach N-65N67W 14NWSE and Phillips PC N24-19 projects indicated that the maximum background concentration for pH was observed to be 9.17. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and lead were calculated to be 5.98 mg/kg, 290 mg/kg, and 23.1 mg/kg respectively.

Based on the Results of the June 2025 remedial excavation activities and the results of the desktop review, all Table915-1 constituent concentrations are in compliance with ECMC standards, and Noble is requesting a No Further Action (NFA) determination for this remediation project.

Based on currently available data, this project is not affected by data integrity irregularities and is not associated with Operator's data integrity review process and its Rule 525.e. Voluntary Disclosure. As part of its data integrity review process, Operator requested the lab protect the laboratory analytical reports from subsequent unauthorized modification by anyone outside the lab, which resulted in the lab reissuing the original reports with additional protections (Reissued Reports). The Reissued Reports were received directly from the lab on April 1 & 2, 2025, which includes the application of a Digital ID/Verified Certification (lock) to support reissuance. The metadata associated with the Reissued Reports also includes the lab representative's name, the date and time the laboratory reissued the report, and an explanation for the report reissuance. The Reissued Reports are attached to this submission.

In the event additional responsive information is received or discovered that would suggest this project should be incorporated into the ongoing data integrity review process associated with Operator's Rule 525.e, Voluntary Disclosure, Operator will update and/or amend the statements in this submission and provide any new or revised data or other information.

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: 10/28/2025

Email: tas-chevron-2@tasm-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: 36226

**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
404351362	FORM 27 DENIED
404352101	LABORATORY ANALYTICAL REPORT
404352102	LABORATORY ANALYTICAL REPORT
404353154	LABORATORY ANALYTICAL REPORT
404390397	LABORATORY ANALYTICAL REPORT
404390427	REMEDATION PROGRESS REPORT
404649009	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 7 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	All soil backgrounds utilized in Figure 5 shall be omitted from future calculations. The distance from the site in question exceeds the acceptable allowance for off-site background considerations.	05/06/2026
Environmental	Operator to conduct a thorough overview of all soil samples shown in the figures versus what is represented in the tables. Figure 3 shows a multitude of soil samples beginning with GS which are not represented in any analytical tables.	05/06/2026

Total: 2 comment(s)

