

State of Colorado  
Energy & Carbon Management Commission

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Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

404143617

Receive Date:

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.

Report taken by:

OPERATOR INFORMATION

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

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 32623 Initial Form 27 Document #: 403593271

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: 329599 | API #: _____           | County Name: WELD                          |
| Facility Name: WATKINS-64N64W 12NESE               | Latitude: 40.325527 | Longitude: -104.491837 |  |
| ** correct Lat/Long if needed: Latitude: 40.326455 |                     | Longitude: -104.489826 |  |
| QtrQtr: NESE                                       | Sec: 12             | Twp: 4N                | Range: 64W Meridian: 6 Sensitive Area? Yes |

|  |                     |                        |  |
|--|---------------------|------------------------|--|
| Facility Type: SPILL OR RELEASE                | Facility ID: 489361 | API #: _____           | County Name: WELD                          |
| Facility Name: Watkins 12-09                   | Latitude: 40.326448 | Longitude: -104.489940 |  |
| ** correct Lat/Long if needed: Latitude: _____ |                     | Longitude: _____       |  |
| QtrQtr: NESE                                   | Sec: 12             | Twp: 4N                | Range: 64W Meridian: 6 Sensitive Area? Yes |

## **SITE CONDITIONS**

General soil type - USCS Classifications SW \_\_\_\_\_

Most Sensitive Adjacent Land Use Cropland \_\_\_\_\_

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**

Riverine 0.24mi NNE Holding Pond 0.21mi SE  
Farming Structure 0.14/0.15/.16mi E, 0.19/0.20/0.22mi NW  
Residential Structure 0.19mi NW

# 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          | Refer to ECMC Document #403760699 | 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 WATKINS T4N-R64W-S12 L01 Facility and Tank Battery location.

On 04/17/2024, the tank battery was decommissioned in accordance with ECMC rules. Laboratory soil samples were collected from the partially-buried produced water vessel excavation (FS01@3') and field screening samples were taken from the N, E, S, & W sidewalls (SS01 through SS04). The screening sample with the highest PID (SS01@1.5') was collected for laboratory analysis from the N sidewall. Lab samples were also collected beneath the above ground storage tank (AST01@0.5') and beneath the the separator risers for the dumpline (SEP01-DL@3') and the flowline (SEP01-FL@3'). Additionally, field screening samples were collected beneath the flare (FLARE01@0.5'), meter house (MH01@0.5'), and automated solar panel (AUTO01@0.5').

## **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 ):

Soils were collected as described in the Initial Action Summary of this Supplemental Form 27. 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 was performed 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, was attached to a previous Form 27 document #403760699.

A historical release was discovered near the tank battery during the decommissioning of the associated Watkins 12-9 flowline (REM #32547) at soil sample location FLR01-S. Due to the proximity of the release to the tank battery, Noble is proposing to move the spill ID (489361) to the Watkins 12-9 tank battery remediation project (REM #32623).

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 5

Number of soil samples exceeding 915-1 2

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 200

### NA / ND

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

-- Highest concentration of SAR 3.15

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 3

### 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?

Three background soil samples were collected near the tank battery and analyzed for metals in soil per ECMC Table 915-1 and pH. Background soil samples were collected from depths ranging between 0.5 feet and 3 feet below ground surface (ft bgs). The maximum background concentration for pH was observed to be 8.29. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and cadmium were calculated to be 5.31 mg/kg, 170 mg/kg, and 0.601 mg/kg, respectively. All arsenic, barium, and cadmium concentrations observed during decommissioning were below 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?

A historical release was discovered near the tank battery during the decommissioning of the associated Watkins 12-9 flowline (REM #32547) at soil sample location FLR01-S. Due to the proximity of the release to the tank battery, Noble is proposing to move the spill ID (489361) to the Watkins 12-09 tank battery remediation project (REM #32623). Excavation activities have commenced in the vicinity of soil sample FL01R-S. Following the completion of excavation activities and the return of the final analytical results, a summary of source mass removal activities will be provided in a 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 historical release was discovered near the tank battery during the decommissioning of the associated Watkins 12-9 flowline (REM #32547) at soil sample location FLR01-S@4'. Due to the proximity of the release to the tank battery, Noble is proposing to move the spill ID (489361) to the Watkins 12-09 tank battery remediation project (REM #32623). Excavation activities have commenced in the vicinity of soil sample FL01R-S. Following the completion of excavation activities and the return of the final analytical results, a summary of source mass removal activities will be provided in a Supplemental Form 27.

### 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.

Excavation activities have commenced in the vicinity of soil sample FL01R-S. Following the completion of excavation activities and the return of the final analytical results, a summary of source mass removal activities will be provided in a Supplemental Form 27.

Groundwater was encountered within the excavation at approximately 10 feet bgs. One groundwater sample (GW01) was collected and submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-TMB, 1,3,5-TMB, TDS, chloride, and sulfate. A secured analytical data report is pending. Upon receipt of the secured report, analytical findings will be summarized and provided.

### **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.

Following excavation activities, a monitoring well network will be proposed via Supplemental Form 27 for ECMC approval. The monitoring wells will be sampled on a quarterly basis until closure criteria are achieved. Groundwater samples will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1.

# 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 1Q25 Timeline Update and Proposal to Move Spill ID 489361 to This Remediation Project \_\_\_\_\_

## 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 (policy MWZZ 316714) 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 \_\_\_\_\_

E&P waste (solid) description \_\_\_\_\_

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

Non-ECMC Disposal Facility: \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_

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. 04/17/2024

Proposed date of completion of Reclamation. 03/24/2027

## 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. 10/17/2023

Actual Spill or Release date, or date of discovery. 01/31/2025

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/17/2024

Proposed site investigation commencement. 03/19/2025

Proposed completion of site investigation. 04/15/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/24/2025

Proposed date of completion of Remediation. 03/24/2026

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 commencement of remedial excavation activities at the site. Following the completion of excavation activities, site investigation activities will be proposed.

**OPERATOR COMMENT**

This Supplemental Form 27 is being submitted as a second quarter 2025 timeline update for the Watkins 12-9 tank battery location, and as a proposal to move spill ID 489361 from the associated Watkins 12-9 flowline (REM #32547) to the Watkins 12-9 tank battery remediation project (REM #32623).

A historical release was discovered near the tank battery during the January 2025 decommissioning of the associated Watkins 12-9 flowline (REM #32547) at the separator flowline riser (FLR01-S). Due to the proximity of the release to the tank battery, Noble is proposing to move the spill ID (489361) to the Watkins 12-9 tank battery remediation project (REM #32623).

A summary of flowline decommissioning activities and a partial data packet for the historical release at the Watkins 12-9 flowline was included on ECMC Document Number 404053230.

Excavation activities have commenced in the vicinity of soil sample FL01R-S. Following the completion of excavation activities and the return of the final analytical results, a summary of source mass removal activities will be provided in a Supplemental Form 27.

Groundwater was encountered within the excavation at approximately 10 feet bgs. One groundwater sample (GW01) was collected and submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-TMB, 1,3,5-TMB, TDS, chloride, and sulfate. A secured analytical data report is pending. Upon receipt of the secured report, analytical findings will be summarized and provided.

Following excavation activities, a monitoring well network will be proposed via Supplemental Form 27 for ECMC approval. The monitoring wells will be sampled on a quarterly basis until closure criteria are achieved.

ECMC Document Number 403943424 was submitted on October 2, 2024, and subsequently denied on February 17, 2025, with the following comment:

ECMC has denied this Form 27 for data validation. Operator will provide laboratory analytical report(s) as a stand-alone attachment(s) on the replacement Supplemental Form 27. The Laboratory Report PDF(s) must be secured by the issuing laboratory; If there is a difference between the creation date and secured date of the PDF, Operator shall provide an explanation in the case narrative of the associated report. ECMC will not review combined PDFs with lab reports.

Secured analytical data report are pending. Upon receipt of the secured reports, analytical findings will be summarized and provided.

Quarterly reporting will be conducted until closure criteria are met for this remediation project.

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: 32623

**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**

|  |  |
|--|--|
|  |  |
|--|--|

Total Attach: 0 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

|  |  |                     |
|--|--|---------------------|
|  |  | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)