FORM 27 Rev 5/22

# State of Colorado
# Energy & Carbon Management Commission

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

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Report taken by: Chris Sanchez

## 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 INFORMATON

Name of Operator: NOBLE ENERGY INC Operator No: 100322
Address: 1099 18TH STREET SUITE 1500
City: DENVER State: CO Zip: 80202
Contact Person: Dan Peterson Email: danpeterson@chevron.com

**Phone Numbers**
Phone: (970) 730-7281
Mobile: ( )

## PROJECT, PURPOSE & SITE INFORMATION

### PROJECT INFORMATION

Remediation Project #: 17187 Initial Form 27 Document #: 402622316

### PURPOSE INFORMATION

- [ ] Rule 913.c.(1): Pit or Cuttings Trench closure.
- [X] Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- [X] 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.
- [X] 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: 305924 API #: County Name: WELD
Facility Name: FOLEY-64N63W 5SENW Latitude: 40.342590 Longitude: -104.463900
** correct Lat/Long if needed: Latitude: 40.345133 Longitude: -104.463757
QtrQtr: SENW Sec: 5 Twp: 4N Range: 63W Meridian: 6 Sensitive Area? Yes

Facility Type: TANK BATTERY Facility ID: 331533 API #: County Name: WELD
Facility Name: SMITH-64N63W 5NENW Latitude: 40.345384 Longitude: -104.463392
** correct Lat/Long if needed: Latitude: 40.345133 Longitude: -104.463757
QtrQtr: NENW Sec: 5 Twp: 4N Range: 63W Meridian: 6 Sensitive Area? Yes

Facility Type: TANK BATTERY Facility ID: 331562 API #: County Name: WELD

Facility Name: CURD-64N63W 5SWNW Latitude: 40.345401 Longitude: -104.468884

** correct Lat/Long if needed: Latitude: 40.345133 Longitude: -104.463757

QtrQtr: SWNW Sec: 5 Twp: 4N Range: 63W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 481519 API #: County Name: WELD

Facility Name: Smith 12-2, Curd 12-5, Foley 22-5 Latitude: 40.345159 Longitude: -104.463751

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 5 Twp: 4N Range: 63W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SP

Most Sensitive Adjacent Land Use Range Land

Is domestic water well within 1/4 mile? Yes

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

**Other Potential Receptors within 1/4 mile**

Residential/Farm Structures 0.04mi SE, 0.07mi N, 0.12mi NW

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- [X] **E&P Waste**
  - [X] Produced Water
  - [X] Oil
  - [X] Condensate
  - [ ] Drilling Fluids
  - [ ] Drill Cuttings
- [ ] **Other E&P Waste**
  - [ ] Workover Fluids
  - [ ] Tank Bottoms
  - [ ] Pigging Waste
  - [ ] Rig Wash
  - [ ] Spent Filters
  - [ ] Pit Bottoms
  - [ ] Other (as described by EPA) _____
- [ ] **Non-E&P Waste** _____

## DESCRIPTION OF IMPACT

| Impacted? | Impacted Media | Extent of Impact | How Determined |
|---|---|---|---|
| UNDETERMINED | GROUNDWATER | NA | Lab analysis if encountered |
| Yes | SOILS | 5' X 5' X 3' BGS | Lab analysis |

## 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 COGCC Rule 911 at the Smith 21-12, Curd 12-5, Foley 22-5 Tank Battery location.

## PROPOSED SAMPLING PLAN

### Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? ( Number, type (grab/composite), analyses, and locations of samples ):

Seven (7) grab confirmation soil samples were collected from beneath the (2) above ground oil tank(s), and at the separator. 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. All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

### Proposed Groundwater Sampling

[X] 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 will be collected and analyzed for all organic 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 ):

A Site Assessment was conducted on 4/28/2022 and 4/29/2022 to delineate impacted media. Ten (10) soil borings were advanced in the area of impacts. Soil samples were collected and analyzed for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil, metals in soil per ECMC Table 915-1, and EC, SAR, pH, and boron. One groundwater monitoring well was installed during the Site Assessment; however, the well was dry upon sampling and a groundwater sample could not be collected.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

**Soil**

Number of soil samples collected: 31

Number of soil samples exceeeding 915-1: 40

**NA / ND**

-- Highest concentration of TPH (mg/kg): 166

-- Highest concentration of SAR: 31.1

Was the areal and vertical extent of soil contamination delineated? Yes

BTEX > 915-1 No

Approximate areal extent (square feet) 1100

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 1

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?

A total of sixteen (16) background soil samples were collected from six discrete locations (BG01 - BG06). The background soil samples were analyzed for metals in soil per ECMC Table 915-1, EC, SAR, pH, and boron. Arsenic, barium, selenium, and pH were observed in the background soil samples above ECMC Table 915-1 standards. Based on the uniform lithology across all soil sample depths and locations at the site (SP), the background results are comparable to all of the soil boring and excavation sample locations.

☐ 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 supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the pH and SAR exceedances observed at sample locations BH06-BH10 during the April 2022 SSI, and the boron exceedance observed at SS03 during decommissioning. A proposed SSI map is attached to this Form 27. During the SSI, soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. Concurrently with the SSI, additional background samples will be collected to determine if pH, SAR, and boron exceedances are attributed to native soil conditions at the site. The SSI will be completed in accordance with the proposed implementation schedule, and the results of the SSI will be submitted on a subsequent 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.

Refer to the Remediation Summary section below.

## 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.

Soil impacts above ECMC Table 915-1 Protection of Groundwater SSLs were discovered during facility decommissioning and delineated through an environmental site assessment. Based on a hard compacted sand layer encountered at 18 ft bgs resulting in drill rig refusal at soil boring BH01; monitoring well BH01, set at 18 ft bgs, being gauged dry during the typical seasonal high groundwater period; nor any of the other nine borings advanced during the site assessment encountering groundwater, there is no evidence to suggest a pathway for communication to groundwater present in the area of facility decommissioning sample SEP01-DL01@3' or elsewhere at the Site. Based on the lack of evidence to suggest a pathway for communication to groundwater and the successful delineation, Noble requests that ECMC approve the application of ECMC Table 915-1 Residential SSL (RSSL) standards at the Site.

An SSI will be completed to confirm and further vertically and horizontally delineate the pH and SAR exceedances observed at sample locations BH06-BH10 during the April 2022 SSI, and the boron exceedance observed at SS03 during decommissioning, in accordance with the attached proposed site investigation map, and proposed sampling plan outlined in the Site Investigation Report section of this Form 27.

### 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.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

**Approved Reporting Schedule:**

[X] 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

[X] Other 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 (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?

[X] 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. 04/08/2021

Proposed date of completion of Reclamation. 07/28/2026

# 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. 01/12/2021

Actual Spill or Release date, or date of discovery. 01/28/2022

## SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/08/2021

Proposed site investigation commencement. 10/28/2024

Proposed completion of site investigation. 07/28/2025

## REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/28/2025

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

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

[X] 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 completion of the November 2023 background investigation at the Smith 21-12, Curd 12-5, Foley 22-5 Facility and necessity for additional supplemental site investigation activities adjacent to the facility. The proposed site investigation will be completed following the approval of this form, landowner negotiations, and crew availability.

## OPERATOR COMMENT

This Form 27 is being submitted to provide to maintain quarterly reporting compliance during the Fourth Quarter 2024 for the Smith 21-12, Curd 12-5, Foley 22-5 Tank Battery location. A proposal to complete a supplemental site investigation (SSI) to confirm and further vertically and horizontally delineate the pH and SAR exceedances observed at sample locations BH06-BH10 during the April 2022 SSI, and the boron exceedance observed at SS03 during decommissioning, in accordance with the attached proposed site investigation map, and proposed sampling plan outlined in the Site Investigation Report section of this Form 27.

The Third Quarter 2024 Supplemental Form 27 was submitted on August 7, 2024 is still in process (ECMC Document # 403741580).

Quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the supplemental site investigation will be submitted on a subsequent Form 27.

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

Signed: Allan Engelhardt  Title: Environmental Consultant

Submit Date: 11/05/2024  Email: tas-chevron-3@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: 17187

| COA Type | Description |
|---|---|
| | |
| 0 COA | |

DENIED

### 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 |
|---|---|
| 403972179 | FORM 27 DENIED |
| 403972914 | SITE INVESTIGATION PLAN |
| 404142594 | FORM 27-SUPPLEMENTAL-SUBMITTED |

Total Attach: 3 Files

## General Comments

| User Group | Comment | Comment Date |
|---|---|---|
| Environmental | ECMC has denied this Form 27 for data validation. Operator will provide all historical 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. | 03/26/2025 |

Total: 1 comment(s)