

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404320840

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: NOBLE ENERGY INC | Operator No: 100322 | Phone Numbers |
| Address: 1099 18TH STREET SUITE 1500 | | Phone: (970) 304-5000 |
| City: DENVER State: CO Zip: 80202 | | Mobile: () |
| Contact Person: Erica Zuniga | Email: RBUEUF27@chevron.com | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 29712 Initial Form 27 Document #: 403389644

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: 302371 | API #: _____ | County Name: WELD |
| Facility Name: BRNAK-62N64W 28SWSE | Latitude: 40.103940 | Longitude: -104.553780 | |
| | ** correct Lat/Long if needed: Latitude: 40.102639 | Longitude: -104.551726 | |
| QtrQtr: SWSE Sec: 28 Twp: 2N Range: 64W Meridian: 6 Sensitive Area? Yes | | | |
| Facility Type: SPILL OR RELEASE | Facility ID: 485280 | API #: _____ | County Name: WELD |
| Facility Name: Brnak 34-28 | Latitude: 40.102639 | Longitude: -104.551651 | |
| | ** correct Lat/Long if needed: Latitude: _____ | Longitude: _____ | |
| QtrQtr: SWSE Sec: 28 Twp: 2N 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

Intermittent Riverine Wetlands 0.09mi W, 0.25mi SE (Denver-Hudson Canal)
Farm Structures 0.25 WSW
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 and field screening, if encountered |
| Yes | SOILS | Refer to ECMC Document #403931869 | 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 BRNAK T2N-R64W-S28 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 excavation (FS01@5' and SS02@2.5'), beneath the above ground oil tank (AST01@0.5'), and at the risers for the flowline(SEP01-FL@3') and dumpline(SEP01-DL@3') of the separator, and at the meter house (MH01@1'). Soil samples were analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10C36] hydrocarbons), organic compounds in soil per ECMC Table 915-1, metals, EC, SAR, pH, 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 inorganic and 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):

Visual inspection at the tank battery area occurred during decommissioning 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 ECMC Document No. 403660374.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 23

NA Highest concentration of TPH (mg/kg) _____

Number of soil samples exceeding 915-1 14 -- Highest concentration of SAR 16
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No
 Approximate areal extent (square feet) 1400 Vertical Extent > 915-1 (in feet) 15

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 October 18, 2023, 15 background samples were collected from five discrete locations (BG01-BG05) at depths ranging between 2 ft and 10 ft bgs and analyzed for pH, SAR, EC, boron, arsenic, barium, and selenium. Background sampling results were submitted and discussed on ECMC Form 27 Document No. 403735793.

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 organic compound exceedances originally observed at MH01 @ 1' during initial decommissioning activities, a site investigation was conducted on October 18, 2023, to delineate the impacted media. Analytical results indicated that the organic exceedances could not be replicated and may have naturally attenuated. Excavation activities will be conducted to remove soil in the vicinity of soil sample MH01 @ 1'.

On April 21, and April 22, 2025, a supplemental site investigation (SSI) was conducted to confirm full Table 915-1 compliance and to horizontally and vertically delineate the remaining pH, EC, and SAR exceedances on site. The Operator was informed that the samples collected during the April 2025 site investigation were run outside of the allotted holding times. As such, a supplemental site investigation will be conducted to recollect samples collected during the April 2025 site investigation. Concurrently, background soil samples will be collected for analysis of pH, EC, SAR, boron, and metals in soil per ECMC Table 915-1 to continue to assess native soil conditions at the site. A proposed soil boring location map is attached to this 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.

The tank battery was decommissioned on September 22, 2023. During decommissioning activities, field observations (high PID reading and hydrocarbon odor) indicated a possible release at sample location MH01 @ 1'. Analytical results indicated that organic compound concentrations were in exceedance of the applicable ECMC standards. As such, a site investigation was conducted on October 18, 2023 to delineate the hydrocarbon impacted media. Analytical results indicated that the organic exceedances could not be replicated and may have naturally attenuated. A detailed summary of the October 2023 site investigation is included on ECMC Document No. 403735793.

The hydrocarbon impacted media observed at MH01 during initial decommissioning activities will be removed via a remedial excavation. Soil samples will be collected from the base and sidewalls of the final excavation extent and submitted for analysis of the full Table 915-1 suite.

REMIEDIATION 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.

A site assessment was conducted on October 18, 2023 to delineate impacted media. Based on the results an additional site investigation was completed during August 2024 to further delineate the inorganic compounds present at BH02@10' (pH), BH04@5' (SAR), BH04@10' (EC), BH07@10' (EC) and BH08@5' (pH) above established background thresholds. The results of the August 2024 SSI were attached to ECMC Document No. 403931869.

On April 21, and April 22, 2025, a supplemental site investigation (SSI) was conducted to confirm full Table 915-1 compliance and to horizontally and vertically delineate the remaining aforementioned pH, EC, and SAR exceedances on site. The Operator was informed that the samples collected during the April 2025 site investigation were run outside of the allotted holding times. As such, a supplemental site investigation will be conducted to recollect samples collected during the April 2025 site investigation. Concurrently, background soil samples will be collected for analysis of pH, EC, SAR, boron, and metals in soil per ECMC Table 915-1 to continue to assess native soil conditions at the site. A proposed soil boring location map is attached to this Form 27.

Soil Remediation Summary

In Situ

Ex Situ

- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Air sparge / Soil vapor extraction
- _____ Natural Attenuation
- _____ Other _____

- _____ 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.

Groundwater was not encountered during decommissioning 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 SSMRP and 1Q2026 TU for SSI _____

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 _____

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. 02/21/2026

Proposed date of completion of Reclamation. 12/31/2027

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. 03/23/2023

Actual Spill or Release date, or date of discovery. 10/03/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/22/2023

Proposed site investigation commencement. 03/31/2026

Proposed completion of site investigation. 03/31/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/18/2023

Proposed date of completion of Remediation. 12/31/2026

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 necessity for Supplemental Site Investigation (SSI) and remedial excavation activities on site. SSI activities are tentatively scheduled to commence on March 31, 2026 and the results of which will be submitted on a subsequent Form 27.

OPERATOR COMMENT

This Supplemental Form 27 is being submitted as a first quarter 2026 timeline update for the completion of out of hold resampling activities and to propose remedial excavation activities at the Brnak 34-28 location.

On April 21, and April 22, 2025, a supplemental site investigation (SSI) was conducted to confirm full Table 915-1 compliance and to horizontally and vertically delineate the remaining pH, EC, and SAR exceedances following August 2024 site investigation activities. The Operator was informed that the samples collected during the April 2025 site investigation were run outside of the allotted holding times. As such, a supplemental site investigation will be conducted to recollect samples collected during the April 2025 site investigation. Concurrently, background soil samples will be collected for analysis of pH, EC, SAR, boron, and metals in soil per ECMC Table 915-1 to continue to assess native soil conditions at the site. A proposed soil boring location map is attached to this Form 27 and site investigation activities are tentatively scheduled for March 31, 2026.

Based on the organic compound exceedances originally observed at MH01@1' during initial decommissioning activities, a site investigation was conducted on October 18, 2023, to delineate the impacted media. Analytical results indicated that the organic exceedances could not be replicated and may have naturally attenuated. Excavation activities will be conducted to remove soil in the vicinity of soil sample MH01@1'. Soil samples will be collected from the base and sidewalls of the final excavation extent and submitted for analysis of the full Table 915-1 suite.

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: Jesse Marcus

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: 29712

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

| | |
|-----------|-------------------------|
| 404562461 | SITE INVESTIGATION PLAN |
|-----------|-------------------------|

Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

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

Total: 0 comment(s)