FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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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 INFORMATON

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

Phone Numbers
Phone: (970) 313-5582
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33825 Initial Form 27 Document #: 403649825

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.
- [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

No Multiple Facilities

Facility Type: WELL Facility ID: API #: 123-26531 County Name: WELD
Facility Name: ERICKSON A 4-12 Latitude: 40.513385 Longitude: -104.562116
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSW Sec: 4 Twp: 6N Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM
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

Well Within Mule Deer Severe Winter Range HPH
Riverine 0.05mi W
Apparent Pond 0.07mi W, 0.15mi SW, 0.16/0.21mi NW
Residential 0.14/0.25mi SW
Farm Structure 0.14/0.15mi SW

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 or Field Screening, if encountered.
Yes	SOILS	Refer to Tables & 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.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the ERICKSON A04-12 wellhead cut and cap and partial flowline removal. The wellhead was cut and capped per ECMC rules. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. On June 20, 2024, approximately 954’ of flowline was fully abandoned-in-place, as per Form 44 Document Number 403975459, soil samples were collected at the flowline risers for the wellhead and separator. The separator flowline riser soil sample was collected under the associated Erickson A4-17 Tank Battery project (REM #33823), and reported on ECMC Document Number 403847052. On April 2, 2025, approximately 325' of flowline was removed, and approximately 629' was abandoned-in-place. Soil samples were collected along the removed section of the flowline.

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):

A grab soil sample was collected at the base of the excavation or the area showing the highest degree of impact during field screening activities at the wellhead excavation. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were taken at the start and endpoint of the flowline, and along the section of the flowline that was removed. 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

[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 sample will be collected and analyzed for all organic compounds and inorganic parameters 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 of the wellhead and flowline areas occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if additional laboratory confirmation sampling was required. A detailed summary of flowline abandonment and wellhead decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, were attached to ECMC Document Numbers 403928368 and 404026130, respectively. A detailed summary of flowline removal activities, including field notes, site photos, figures, and laboratory analytical results is attached to this Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 3

Number of soil samples exceeeding 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: 2.4

BTEX > 915-1: No

Vertical Extent > 915-1 (in feet): 4

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?

On June 20, 2024, one background soil sample (BKG01) was collected from approximately 3 ft bgs. On April 2, 20205, six background soil samples were collected from two discrete locations (BKG02- BKG03) from depths ranging from approximately 2 ft and 4 ft bgs. All background samples were analyzed for metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. The maximum concentration for pH was 8.60. The maximum background concentrations with a 1.25x multiplier applied for arsenic and barium were calculated to be 3.95 mg/kg and 464 mg/kg respectively. All pH, arsenic, and barium concentrations observed during flowline decommissioning activities 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?

Based on the results of soil samples collected during flowline decommissioning, remedial excavation activities will be conducted to remove the hydrocarbon impacted material in the vicinity of soil samples FL01-01@4' and FL01-03@4'. Soil samples will be collected from the base and sidewalls of the excavation extents and submitted for analysis of the full ECMC Table 915-1 suite. Furthermore, additional background samples will be collected to further assess native soil conditions on site. Background soil samples will be submitted for analysis of pH, SAR, EC, boron, and metals in soil per ECMC Table 915-1.

All samples that were affected by the laboratory error detailed in the Operator Comment of this Form 27 will be resampled at a later date with the exception of soil sample locations FL01-01 and FL01-03. All resamples will be submitted for laboratory analysis of the full Table 915-1 suite. A summary of excavation and site investigation activities will be included on a subsequent Supplemental Form 27.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

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 organic compound exceedances observed at sample locations FL01-01@4' and FL01-03@4' will be removed through remedial excavations.

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.

Flowline decommissioning analytical results indicated that organic compound concentrations were in exceedance of the applicable ECMC regulatory standards in soil samples FL01-01@4' and FL01-03@4'. Based on the results, remedial excavation activities will be conducted to remove hydrocarbon impacted material in the vicinity of the aforementioned soil samples. Soil samples will be collected from the base and sidewalls of the excavation and submitted for analysis of the full ECMC Table 915-1 suite. Furthermore, additional background samples will be collected to further assess native soil conditions on site. Background soil samples will be submitted for analysis of pH, SAR, EC, boron, and metals in soil per ECMC Table 915-1.

All samples that were affected by the laboratory error detailed in the Operator Comment of this Form 27 will be resampled at a later date with the exception of soil sample locations FL01-01 and FL01-03. All resamples will be submitted for laboratory analysis of the full Table 915-1 suite. A summary of excavation and site investigation activities will be included on a subsequent Supplemental Form 27.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

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.

Groundwater was not encountered during decommissioning activities.

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 Decommissioning Sample Summary; Remedial Excavation and 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 (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?

[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. 04/24/2024

Proposed date of completion of Reclamation. 12/09/2026

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. 01/04/2024

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/24/2024

Proposed site investigation commencement. 06/09/2025

Proposed completion of site investigation. 12/09/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/09/2025

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

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.

[X] 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 necessity for remedial excavation and site investigation activities at the site. All samples that were affected by the laboratory error detailed in the Operator Comment of this Form 27 will be resampled at a later date with the exception of soil sample locations FL01-01 and FL01-03. All resamples will be submitted for laboratory analysis of the full Table 915-1 suite. A summary of excavation and site investigation activities will be included on a subsequent Supplemental Form 27.

OPERATOR COMMENT

This Form 27 is being submitted to include the decommissioning results and historic release discovery at the Erickson A04-12 location.

Operator was informed by the laboratory that the April 2, 2025, sample holding times were exceeded for the 8260B GBTEXN 915 analyses.

Because not all analytes would be outside of holding times, the lab ran the samples for the full Table 915-1 suite.

The full laboratory report (Report) is being transmitted to ECMC for transparency. The Report's case narrative identifies which constituents were run outside of the required holding times. The Report's note column also identifies the impacted constituents. Operator will not be relying on any results associated with a constituent that was outside of the required holding time. Operator will be collecting replacement samples and will be submitting them for analysis. Operator will submit the replacement sample laboratory report in a future supplemental Form 27.

Flowline removal activities were conducted on April 2, 2025. Analytical results indicated that organic compound concentrations were in exceedance of the applicable ECMC regulatory standards in soil samples FL01-01@4' and FL01-03@4'.

Based on the results, remedial excavation activities will be conducted to remove hydrocarbon impacted material in the vicinity of the aforementioned soil samples. Soil samples will be collected from the base and sidewalls of the excavation and submitted for analysis of the full ECMC Table 915-1 suite. Furthermore, additional background samples will be collected to further assess native soil conditions on site. A proposed background soil boring location map is attached to this Form 27.

The Spill ID's for the reportable releases observed at soil locations FL01-01@4' and FL01-03@4' are pending at the time of this submittal and will be included on a subsequent Form 27. The Form 19 document numbers are included in the Related Forms tab of this Form 27.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion

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.

As noted in the approved ECMC Document Number 404026130, a secured laboratory report for the June 2024 flowline abandonment activities is attached to this Form 27.

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 report from subsequent unauthorized modification by anyone outside the lab, which resulted in the lab reissuing the original report with additional protections (Reissued Report). The Reissued Report was received directly from the lab on April 2, 2025 (Work Order #2406302) and June 13, 2025 (Work Order #2504057), which includes the application of a Digital ID/Verified Certification (lock) to support reissuance. The metadata associated with this Reissued Report 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 Report is 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: Jesse Marcus Title: Environmental Consultant

Submit Date: Email: jmarcus@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: 33825

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
404233180	LABORATORY ANALYTICAL REPORT
404233189	SITE INVESTIGATION REPORT
404233199	SITE INVESTIGATION PLAN
404240449	LABORATORY ANALYTICAL REPORT

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)