FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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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 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) 3135582
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33975 Initial Form 27 Document #: 403523574

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

Yes Multiple Facilities

Facility Type: WELL Facility ID: API #: 123-32058 County Name: WELD
Facility Name: WIEDEMAN 4-5 Latitude: 40.434123 Longitude: -104.806989
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 5 Twp: 5N Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 489571 API #: County Name: WELD
Facility Name: Weideman 4-5 Latitude: 40.434123 Longitude: -104.806989
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 5 Twp: 5N Range: 66W 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 0.04mi W, 0.25mi SW
Freshwater Emergent Wetland 0.07mi SW
Forested/Shrub Riparian 0.23mi SW
Residential 0.25mi/ 0.232mi/ 0.22mi NW, 0.22mi/ 0.22mi/ 0.22mi N, 0.22mi/ 0.22mi/ 0.23mi/ 0.23mi/ 0.24mi NE
Farm Structure 0.21mi SE

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**

DENIED

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	Refer to Tables and Figures	Lab analysis and field screening
Yes	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.

On March 6, 2024, a site investigation was conducted pertaining to the Wiedeman 4-5 wellhead cut and cap. The wellhead was cut and capped per ECMC rules.

On May 10, 2024, approximately 272' of flowline was abandoned in-place. Soil samples were taken along the flowline at the start and endpoint of the flowline so as not to disturb the area of field constraint. The Flowline Pre-Abandonment Notice Document number is 403819626. The results for the flowline abandonment were submitted to the ECMC on Form 27 Document 403886938.

Soil samples were not collected under the flowline separator riser (SEP01-FL) because it was sampled during decommissioning of associated facility, Wiedeman 25-5 (REM #34243).

On 01/30/2025 and 01/31/2025, pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the Wiedeman 4-5 flowline, Wiedeman 5-5 flowline, Wiedeman 25-5 flowline, Wiedeman 18-25 flowline, Wiedeman 22-5 flowline, and Wiedeman 6-5 flowline removals. A total of six (6) separate flowlines each measuring approximately 272' were removed. Soil samples were taken along the flowline at any points of material change and/or hammer unions, directional changes, as well as at the bell holes on either side of a waterway.

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):

Grab soil samples were 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 along the flowline at the start and endpoint of the flowline so as not to disturb the area of field constraint. On 1/31/25 the flowlines were removed, at which time soil and field screen samples were taken along the flowlines at any points of material change and/or hammer unions, and directional changes. 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 [C10C36] 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):

Groundwater was encountered at two locations during the 01/30/2025 site investigation and a grab groundwater sample weas collected at one of the locations (GW01) 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 of the wellhead and flowline occurred 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 Supplemental Form 27 (Doc # 403886938).

Visual inspection of the flowlines and wellheads occurred during the decommissioning and removal 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, is attached to this Supplemental Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected	11	--	Highest concentration of TPH (mg/kg) 640
Number of soil samples exceeeding 915-1	4	--	Highest concentration of SAR 2.61
Was the areal and vertical extent of soil contamination delineated?	No		BTEX > 915-1 No
Approximate areal extent (square feet)	400		Vertical Extent > 915-1 (in feet) 4

Groundwater

Number of groundwater samples collected	1	ND	Highest concentration of Benzene (µg/l)
Was extent of groundwater contaminated delineated?	No	ND	Highest concentration of Toluene (µg/l)
Depth to groundwater (below ground surface, in feet)	4	ND	Highest concentration of Ethylbenzene (µg/l)
Number of groundwater monitoring wells installed	0	ND	Highest concentration of Xylene (µg/l)
Number of groundwater samples exceeding 915-1	1	NA	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?

Between March 6, 2024, April 26, 2024, May 10, 2024, and January 30, 2025, a total of 12 background soil samples were collected adjacent to the Wiedeman 4-5 wellhead. Background samples were collected from depths ranging between 2 to 6 feet (ft) below ground surface (bgs). Background soil samples were analyzed for a combination of metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. Please note that the analytical results for the background samples collected on March 6, 2024 and April 26, 2024 were submitted to the ECMC under Form 27 Document #403886938. The maximum background value for pH was observed to be 8.35. The maximum background concentrations for arsenic and barium with a 1.25x multiplier applied were calculated to be 7.40 mg/kg and 249 mg/kg, respectively. All arsenic concentrations observed during decommissioning activities were below background values.

☐ 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 analytical results collected during decommissioning, a supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the TPH exceedance at FL04R-W@4' and the pH exceedances at FL01R-W@3', FL02R-W@4', FL04R-W@4', and FL06R-W@4' observed during decommissioning. A groundwater sample will be collected at the flowline directional change adjacent to FL04-01@4' where groundwater was previously observed but not sampled. 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 backgrounds will be collected to determine if elevated pH and barium are attributed to native soil conditions at the site and to investigate background inorganics in groundwater. 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. Additional SSI activities will be proposed (as applicable) on a future Form 27 if further investigation is required.

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.

No impacted material caused by oil and gas operations was identified at this time.

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.

On 04/26/2024, a supplemental site investigation (SSI) was completed to collect additional background samples to determine if arsenic and barium are attributed to native soil conditions at the site.

A supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the TPH exceedance at FL04R-W@4' and the pH exceedances at FL01R-W@3', FL02R-W@4', FL04R-W@4', and FL06R-W@4' observed during decommissioning, in accordance with the attached proposed site investigation map, and proposed sampling plan outlined in the Site Investigation Report and Operator Comments section of this Form 27. Concurrently with the SSI, additional backgrounds will be collected to determine if elevated pH and barium are attributed to native soil conditions at the site and to investigate background inorganics in groundwater. 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.

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 encountered in the wellhead excavation and at the flowline directional change at a depth of 4 ft. bgs during site investigation activities on 01/31/2025. One groundwater sample (GW01) was collected at the former wellhead and was submitted for laboratory analysis on BTEX, TMB, chloride, sulfate, and TDS. Analytical results indicated organic compounds were not detected above laboratory reporting limits. A groundwater sample will be collected at the flowline directional change adjacent to FL04-01@4' where groundwater was previously observed but not sampled. An investigation of background inorganics in groundwater will be completed.

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 & 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 the 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? No

Does the previous reply indicate consideration of background concentrations?

Does Groundwater meet Table 915-1 standards? No

Is additional groundwater monitoring to be conducted? Yes

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.

Following facility closure activities at the wellhead, the location was backfilled, compacted, and re-contoured to match pre-existing conditions. The location will be reclaimed in accordance with the ECMC 1000 series.

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. 03/06/2024

Proposed date of completion of Reclamation. 11/21/2026

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. 08/24/2023

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/06/2024

Proposed site investigation commencement. 05/21/2025

Proposed completion of site investigation. 11/21/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/21/2025

Proposed date of completion of Remediation. 11/21/2026

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 changed due to the decommissioning of the Wiedeman 4-5 wellhead and flowline and necessity for supplemental site investigation activities adjacent to the wellhead and flowline. The proposed site investigation will be completed following the approval of this form.

OPERATOR COMMENT

This Form 27 is being submitted to include the decommissioning results and historic reportable release discovered at the former Wiedeman 4-5 flowline location. Wellhead and flowline decommissioning activities occured at the above referenced location on January 30, 2025 and January 31, 2025. Discrete soil samples were collected from beneath the former facility infrastructure as described in the approved Form 27-Initial (403523574). Analytical results indicated that soil samples FL04R-W@4' exhibited TPH and barium concentrations in exceedance of the regulatory standards. Groundwater was encountered in the wellhead excavation at a depth of 4 ft. bgs during site investigation activities on 01/31/2025. One groundwater sample (GW01) was collected at the former wellhead and was submitted for laboratory analysis on BTEX, TMB, chloride, sulfate, and TDS. Analytical results indicated organic compounds were not detected above laboratory reporting limits. An investigation of background inorganics in water will be completed.

Between March 6, 2024, April 26, 2024, May 10, 2024, and January 30, 2025, a total of 12 background soil samples were collected adjacent to the Wiedeman 4-5 wellhead. Background samples were collected from depths ranging between 2 to 6 feet (ft) below ground surface (bgs). Background soil samples were analyzed for a combination of metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. Please note that the analytical results for the background samples collected on March 6, 2024 and April 26, 2024 were submitted to the ECMC under Form 27 Document #403886938. The maximum background value for pH was observed to be 8.35. The maximum background concentrations for arsenic and barium with a 1.25x multiplier applied were calculated to be 7.40 mg/kg and 249 mg/kg, respectively. All arsenic concentrations observed during decommissioning activities were below background values.

Based on the decommissioning analytical results, a supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the TPH exceedance detected at FL04R-W@4' and the pH exceedances detected at FL01R-W@3', FL02R-W@4', FL04R-W@4', and FL06R-W@4'. A groundwater sample will be collected at the flowline directional change adjacent to FL04-01@4' where groundwater was previously observed but not sampled. 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 backgrounds will be collected to determine if elevated pH and barium are attributed to native soil conditions at the site and to investigate background inorganics in groundwater. Background soil samples will be analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The SSI will be completed in accordance with the proposed implementation schedule.

Pursuant to Rule 913.e, 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.

NOTE: Operator requests that tas-chevron-1@tasman-geo.com receive notification of ECMC's response to this submission.

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

Signed: Collin Barker Title: Environmental Consultant

Submit Date: 06/05/2025 Email: cbarker@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: 33975

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
404127133	FORM 27-SUPPLEMENTAL-SUBMITTED
404228822	LABORATORY ANALYTICAL REPORT
404230066	LABORATORY ANALYTICAL REPORT
404230085	SITE INVESTIGATION REPORT
404230107	SITE INVESTIGATION PLAN

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Environmental	Laboratory analytical indicates that a subset of the samples were analyzed outside of the hold time required by the analytical method(s). Operator voluntarily disclosed this information in accordance with Rule 525.e. As discussed with ECMC Staff, Operator shall submit a replacement Form 27 with a revised lab report flagging the out of hold time data and revised workplan.	07/07/2025

Total: 1 comment(s)