

State of Colorado
Energy & Carbon Management Commission

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



Document Number:
404457267
Receive Date:
12/15/2025
Report taken by:
Krystal Heibel

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 Phone: (970) 304-5000 Mobile: ()
Address: 1099 18TH STREET SUITE 1500		
City: DENVER	State: CO	Zip: 80202
Contact Person: Lauren Hoff	Email: RBUEUF27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 27519 Initial Form 27 Document #: 403293174

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: WELL	Facility ID: _____	API #: 123-36799	County Name: WELD
Facility Name: Shable Federal LB33-78HN	Latitude: 40.712413	Longitude: -104.105882	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWNW	Sec: 33	Twp: 9N	Range: 60W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 491144	API #: _____	County Name: WELD
Facility Name: Shable Federal LB33-78HN	Latitude: 40.712412	Longitude: -104.105877	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWNW	Sec: 33	Twp: 9N	Range: 60W Meridian: 6 Sensitive Area? Yes

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 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.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the Shable Federal LB33-78HN wellhead cut and cap and flowline removal. The wellhead was cut and capped per ECMC rules, and approximately 396' of flowline was 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. The ECMC was notified on 9/4/2025 in Form 44 Document 404342629.

Laboratory analytical results indicated a historical release occurred at the decommissioned wellhead and flowline. Please refer to the operator comments for additional information regarding the historical release and remedial efforts to be conducted at the wellhead and flowline.

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):

A grab soil sample was collected from the area showing the highest degree of impact during field screening activities at the wellhead excavation. 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. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Following source mass removal of hydrocarbon impacted soil, confirmation soil samples will be collected from the final extents of the excavation. Soil samples will be 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 will be 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, a grab groundwater sample will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1; this sample analysis includes, but is not limited to BTEX, naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB, chloride and sulfate anions and total dissolved solids (TDS).

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 decommissioning activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. The ECMC Wellhead and Flowline Closure Checklists were utilized and filled out during the abandonment process. A photolog is attached.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 4
Number of soil samples exceeding 915-1 4
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 400

NA / ND

-- Highest concentration of TPH (mg/kg) 30.9
-- Highest concentration of SAR 4.79
 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?

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?

Source mass removal of hydrocarbon impacted soil commenced on October 30, 2025. Confirmation soil samples were collected from the base and sidewalls of the final extents of the excavation and submitted for full Table 915-1 analysis. Additional background soil samples were collected from boring locations at similar depths and soil horizons as excavation soil samples, in areas away from oil and gas infrastructure to further investigate residual inorganic concentrations in soil at the wellhead.

The final analytical results are currently pending and will be summarized on the next Supplemental Form 27 submittal.

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. Hydrocarbon impacted material was transported off-site to a licensed disposal facility in accordance with Rules 905 and 906.

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.

Initial facility decommissioning activities and confirmation soil sampling at the Shable Federal LB33-78HN wellhead and flowline occurred on July 29, and August 25, 2025, respectively. Laboratory analytical results indicated a historical release occurred at the Shable Federal LB33-78HN decommissioned wellhead and flowline and was reported as a historic release in Form 19 document numbers 404313193 and 404360123.

Source mass removal of hydrocarbon impacted soil commenced on October 30, 2025. Hydrocarbon impacted material at the wellhead and flowline were removed and hauled off site for disposal under Noble manifest to Waste Management's North Weld Landfill in Ault, Colorado in accordance with Rules 905 and 906. Copies of the waste manifests are available upon request. Confirmation soil samples were collected from the base and sidewalls of the final extents of the excavations and submitted for full Table 915-1 analysis. Final analytical results will be summarized in a subsequent Supplemental Form 27 submittal and will be reported along with ongoing Remediation Project Number 27519.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Yes Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 92

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ 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 excavation of the wellhead or flowline during decommissioning 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 SSMR Update, Site Investigation Report

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? Yes

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

No beneficial use

Volume of E&P Waste (solid) in cubic yards 92

E&P waste (solid) description Hydrocarbon impacted soils

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Waste Management's North Weld Landfill in Ault, Colorado

Volume of E&P Waste (liquid) in barrels 0

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? Yes

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 COGCC 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? No

If YES, does the seed mix comply with local soil conservation district recommendations? _____

Did the local soil conservation district provide the seed mix? No

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 07/29/2025

Proposed date of completion of Reclamation. 07/29/2027

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. 08/12/2025

Actual Spill or Release date, or date of discovery. 08/12/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/29/2025

Proposed site investigation commencement. 07/29/2025

Proposed completion of site investigation. 03/29/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/29/2026

Proposed date of completion of Remediation. 09/29/2026

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:

Source mass removal activities have commenced at the wellhead and flowline. The final analytical results are currently pending. The implementation schedule has been updated to reflect these changes.

OPERATOR COMMENT

This 4Q25 Supplemental Form 27 was prepared to include the analytical results and SSMRP and SSIP for the historic release that was discovered at the Shable Federal LB33-78HN flowline and in connection with the initial Form 19 submitted under Document 404360123.

Initial facility closure activities and confirmation soil samples were conducted at the wellhead on July 29, 2025, and were summarized in Supplemental Form 27 Document 404312774 and in connection with the initial Form 19 submitted under Document 404313193.

Discrete soil samples were collected on August 25, 2025, from adjacent to the wellhead flowline riser, FL01R-W@4', and along the flowline where a direction change was observed: FL01-01@2.5', FL01-02@2.5', and FL01-03@2.5'. Analytical results indicated that the soil samples exceeded ECMC Table 915-1 standards for 1-mehtylnapthalene in FL01-03 (0.0163 mg/kg); arsenic in FL01-01 (3.6 mg/kg), FL01-02 (3.5 mg/kg), FL01-03 (3.7 mg/kg), and FL01R-W (3.0 mg/kg); and barium in FL01-01 (263 mg/kg), FL01-02 (259 mg/kg), FL01-03 (332 mg/kg), and FL01R-W (424 mg/kg). Groundwater was not encountered during excavation of the wellhead for decommissioning activities.

Based on confirmation soil sampling results from the wellhead and flowline decommissioning on July 29, and August 25, 2025, indicating exceedance of Table 915-1 organic levels in soil, source mass removal of hydrocarbon impacted soil commenced on October 30, 2025. Hydrocarbon impacted material at the wellhead was removed and hauled off site for disposal under Noble manifest to Waste Management's North Weld Landfill in Ault, Colorado in accordance with Rules 905 and 906. Copies of the waste manifests are available upon request. Confirmation soil samples were collected from the base and sidewalls of the final extents of the excavation and submitted for full Table 915-1 analysis. Additionally, background soil sampling was conducted the same day from boring locations at similar depths and soil horizons as the excavation soil samples, in areas away from oil and gas infrastructure to further investigate possible residual inorganic concentrations in soil at the wellhead. The analytical results are currently pending and will be summarized on the next Supplemental Form 27.

Please refer to the attached site investigation assessment and analytics for a detailed description of activities conducted during flowline decommissioning. The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. Chain of custody forms were properly executed, and data were reported using the correct methods and reporting units. The results of the QA/QC assessment indicate that data precision and accuracy are acceptable.

Pursuant to Rule 913.e, quarterly reporting will continue for the location until data indicates no further action is warranted.

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

Signed: Lindsey Blankenship

Title: Project Geologist

Submit Date: 12/15/2025

Email: chevronfr@entradainc.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: Krystal Heibel

Date: 06/02/2026

Remediation Project Number: 27519

COA Type

Description

	Arsenic concentrations in confirmation soil samples exceed the Table 915-1 Residential Soil Screening Level Concentrations. Operator will provide additional data to characterize arsenic concentrations at the site and to determine its source in the next quarterly report.
1 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.

<u>Att Doc Num</u>	<u>Name</u>
404457267	FORM 27-SUPPLEMENTAL-SUBMITTED
404457276	SITE INVESTIGATION REPORT
404457277	ANALYTICAL RESULTS

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)