

State of Colorado
Energy & Carbon Management Commission

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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 ECOM 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: Kristofer Shepherd	Email: RBUEUF27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 29696 Initial Form 27 Document #: 403420472

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

No Multiple Facilities

Facility Type: WELL	Facility ID: _____	API #: 123-25938	County Name: WELD
Facility Name: LUCCI B 1-20	Latitude: 40.428584	Longitude: -104.503234	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 1	Twps: 5N	Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW Most Sensitive Adjacent Land Use Grassland

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

The Location is within a 1/4-mile of the following High Priority Habitats: Aquatic Native Species Conservation Waters, Mule Deer Severe Winter Range, and Mule Deer Winter Concentration Area. Crow Creek (which is categorized as a Freshwater Emergent Wetland) is located approximately 200 feet west of the Location.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- E&P Waste** **Other E&P Waste** **Non-E&P Waste**
- Produced Water Workover Fluids
- Oil Tank Bottoms
- Condensate Pigging Waste
- Drilling Fluids Rig Wash
- Drill Cuttings Spent Filters
- Pit Bottoms
- 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 Colorado Energy & Carbon Management Commission (ECMC) Rule 911, a site investigation was conducted pertaining to the LUCCI B #1-20 wellhead cut and cap and flowline removal. On February 5, 2024, initial wellhead characterization sampling was conducted by a previous consultant following cut and cap operations at the Location. Nine field-screening samples were collected and one was submitted for analysis. One background soil sample was also collected. See Document 404142867 for details.

On March 4, 2024, a previous consultant completed initial flowline characterization sampling when approximately 353 feet of flowline was abandoned in place due to field constraints. Two flowline characterization soil samples were collected and submitted for analysis. Additionally, 15 background soil samples were collected. See Document 404242500 for details.

On July 21, 2025, additional flowline characterization sampling was conducted by a previous consultant following the flowline removal. Four flowline samples were collected: One at the flowline connection to the wellhead, two at directional changes, and one at the flowline connection to the separator. Three backgrounds were also collected in adjacent, undisturbed areas. See the attached Document for site investigation details.

On August 18, 2025, Confluence Compliance Companies, LLC (Confluence) conducted a site investigation to recharacterize potential soil impacts identified at the wellhead during the initial site investigation and to collect additional characterization samples along the flowline corridor. Using hand tools, three soil samples were collected. One sample was collected from the initial wellhead characterization sample location, and two flowline characterization samples were collected at directional points along the flowline corridor. Additionally, five background soil samples were collected in adjacent, undisturbed areas. See the attached Report of Work Completed (ROWC) for details.

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):

Additional soil samples will be collected to vertically and horizontally delineate the extent of soils exceeding naphthalene allowable limits. Soil samples will be submitted for analysis of all Table 915-1 soil constituents of concern. Background samples will be collected to establish the range of values for naturally occurring inorganic constituents in the project area. If background sampling efforts fail to demonstrate that inorganic constituent values remaining at the Location are within the natural range of values in the project area, further delineation will be completed at the wellhead and flowline site investigation areas. A proposed sampling map is attached.

Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? (Number, analyses, and locations of samples):

No groundwater has been encountered during site investigation activities. If groundwater is encountered, a grab groundwater sample will be collected and analyzed for full 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 wellhead area occurred during site investigation activities. Field personnel assessed all disturbed areas for indications of past spills, such as staining or salt accumulation, with direction to collect samples and report any areas of concern. No areas of concern have been reported.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 7

Number of soil samples exceeding 915-1 2

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 200

NA / ND

-- Highest concentration of TPH (mg/kg) 102.8

-- Highest concentration of SAR 18.8

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 7

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?

During supplemental site investigation efforts on August 18, 2025, five background soil borings were advanced in adjacent, undisturbed areas. One sample was collected from each boring and submitted for laboratory analysis of Table 915-1 inorganics.

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?

Additional sampling around the flowline directional change point will be needed to vertically and horizontally delineate the extent of soil with naphthalene exceedances, and further background sampling to help establish the natural range of values for inorganic constituents is planned to further the investigation.

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 has been removed 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.

Site investigation and delineation efforts are still underway for this project. When investigation efforts have concluded, if remediation is deemed to be necessary, a remedial approach will be proposed, and subsequent efforts and results will be reported here.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ 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 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 Quarterly Update, SSI Report, and SSIP

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? 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 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. 10/31/2025

Proposed date of completion of Reclamation. 10/31/2027

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. 05/16/2023

Actual Spill or Release date, or date of discovery. 03/26/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/28/2024

Proposed site investigation commencement. 07/01/2023

Proposed completion of site investigation. 01/31/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. _____

Proposed date of completion of Remediation. _____

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 adjusted to reflect the status of site investigation efforts and anticipated dates for completion. Additional site investigation to delineate impacts in the wellhead and flowline investigation areas and characterize native soil conditions is tentatively scheduled to be completed by the first quarter of 2026, and results will be reported in a subsequent Form 27. Remediation dates have been removed from this submittal as no active remediation is planned at this time. Should the supplemental site investigation plan (SSIP) indicate the need for remedial activities, a schedule will be provided.

OPERATOR COMMENT

This form has been submitted to report results of the July 21 and August 18, 2025, site investigations for the LUCCI B #1-20 (Remediation Project 29696), and to propose supplemental delineation at the flowline directional change point and additional background investigation. See the attached ROWC for details.

Due to the detection of naphthalene in sample FL01-01@4', Form 19 Document 404344060 was submitted to ECMC on September 5, 2025; the form is included under Related Forms. The Form 19 was approved and assigned Spill ID 491884 on October 22, 2025. Additionally, sample FL01-01@4' was reported with a pH value below the SSL and site-specific background conditions. Confluence recommends collecting an additional 8 samples at the flowline directional change point to horizontally and vertically delineate the presence of naphthalene, and confirm/delineate the low pH value identified during the August 2025 recharacterization effort. These samples would be collected from four sample points at two depths, including seven feet and 12 feet to establish vertical delineation beneath the exceeding sample point (FL01-01@4') and triangulated around the exceeding point at depths of four feet and seven feet.

The SAR exceedance of 18.8 along the flowline at FL01-01@4', the barium exceedance of 124 mg/kg at WH01@7', and the arsenic exceedances in all characterization samples, values ranging from 2.0 to 3.1 mg/kg, are consistent with the range of naturally occurring values in the area, though they have not been conclusively cleared with background lab results. Confluence recommends collecting an additional 10 background samples collected at depths of four and eight feet at five different sample points on adjacent undisturbed surfaces to further establish the natural range of values for inorganic constituents in the project area.

Additional details on the supplemental site investigation activities described here are presented in the attached report. Pursuant to Rule 913.e., quarterly reporting will be conducted until closure criteria are achieved for the remediation project. Confluence plans to conduct the proposed SSI in accordance with the proposed implementation schedule and the SSIP attached to this form submittal. The results will be submitted in 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: Holly Tignac

Title: Project Scientist

Submit Date: _____

Email: CVX-REMS@confluence-cc.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: 29696

COA Type

Description

0 COA	
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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

404347589	LABORATORY ANALYTICAL REPORT
404347590	LABORATORY ANALYTICAL REPORT
404362190	LABORATORY ANALYTICAL REPORT
404399063	SITE INVESTIGATION REPORT

Total Attach: 4 Files

General Comments

User Group

Comment

Comment Date

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

Total: 0 comment(s)