

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404089319
Receive Date:
09/13/2025

Report taken by:
Chris Sanchez

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) 730-7281
City: DENVER	State: CO	Zip: 80202
Contact Person: Dan Peterson	Email: danpeterson@chevron.com	Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 27303 Initial Form 27 Document #: 403311310

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: _____	Facility ID: _____	API #: _____	County Name: _____
Facility Name: _____	Latitude: _____	Longitude: _____	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: _____	Sec: _____	Twp: _____	Range: _____
		Meridian: _____	Sensitive Area? _____

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Grassland
Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No
Is groundwater less than 20 feet below ground surface? No

Pronghorn Winter Concentration HPH

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 ECMC Rule 911 a site investigation was conducted pertaining to the Gutteresen State CC 20-03 wellhead cut and cap and flowline removal. Approximately 1694' of flowline was removed. The wellhead was cut and capped per ECMC rules. A Form 44 was submitted to ECMC on 29 August 2019 (Document Number 402159495).

The wellhead (Document Number 403582002, dated 19 May 2023) and flowline (Document Number 403582003, dated 14 July 2023) closure activities were between May and July 2023. A total of eight (8) grab soil samples were collected, five (5) at the wellhead excavation, one (1) at the flowline terminus at separator, and two (2) at flowline directional changes. Soil samples were analyzed by a certified laboratory for Table 915-1 compounds, and EC, SAR, pH, and boron. One (1) sample was analyzed for waste characterization of ECMC Table 915-1 metals. All samples were collected at depths of 5-feet below ground surface (ft bgs) for the sidewall samples, and 6-ft bgs for the floor samples from the excavation. A Form 19 was submitted to ECMC in association with exceedances reported in sample and is dated 30 May 2023 (Document Number 403416738).

On 11 December 2023, assessment activities were conducted to delineate impacts at the site (Document Number 403931353). A total of 21 samples were collected (SB-01 through SB-10 with 11 delineation samples and 10 background samples (Background-02 @ 5.0-17.5 & 7.5-10 ft bgs through Background-06 @ 7.5-10 ft bgs) were submitted for laboratory analysis. Arsenic was reported in all of the samples collected.

On 20 June 2025, Operator conducted supplemental source mass removal (SSMR) excavation activities and screened the floor and side wall samples until targeted field screening results were met and collected confirmation samples for analysis.

On 8 August 2025, three additional background samples were collected and are pending receipt of analytical results from the laboratory.

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):

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 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 by EPA Method 8260, chloride and sulfate anions by EPA method 300.0, and total dissolved solids (TDS) by Method SM 2540C.

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 17
Number of soil samples exceeding 915-1 3
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 300

NA / ND

-- Highest concentration of TPH (mg/kg) 622
-- Highest concentration of SAR 0.67
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 6

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 8 August 2025, three additional background samples were collected for comparison. The data is currently pending receipt from the laboratory for review and data analysis.

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?

On 20 June 2025, Operator conducted supplemental source mass removal (SSMR) excavation activities and screened the floor and side wall samples until targeted field screening results were met. Grab confirmation soil samples (a minimum of one floor sample and four sidewall samples) were collected once the proposed excavation boundaries were achieved. Samples were field screened and analyzed for all ECMC Table 915-1 compounds. All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods. A total of 12 excavation confirmation samples were collected. On 8 August 2025, three additional background samples were collected for comparison. The data is currently pending receipt from the laboratory for review and data analysis. Next steps will be addressed on a subsequent 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.

On 20 June 2025, the Operator conducted supplemental source mass removal (SSMR) excavation activities and sampled both the floor and sidewalls. Collected soil samples were analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

REMEDICATION 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.

Laboratory analysis from samples collected on 19 May 2023 during previous wellhead closure activities identified TPH exceedance at sample location WH-SS-03 @ 5-ft bgs that was not addressed during initial closure activities. Laboratory analysis from samples collected on 14 July 2023 during previous investigation activities identified a benzo(a)anthracene exceedance at sample location FL01-H @ 2-ft bgs that was not addressed during closure activities. These exceedances were removed through remedial excavations of approximately 25' x 25' x 10' (6,250 cubic feet, or approximately 232 cubic yards) and 10' x 10' x 4' (400 cubic feet, or approximately 15 cubic yards), respectively. A minimum of one (1) floor and four (4) sidewall confirmation soil samples were collected from each excavation (If the sidewalls extend beyond 40 linear feet, or the floor of the excavation is larger than 500 square feet, then additional floor samples will be collected). All samples collected were analyzed for ECMC Table915-1 constituents. Collected soil samples were analyzed by a certified laboratory using approved ECMC laboratory analysis methods. The analytical results of the remedial excavation will be submitted on a subsequent Form 27. Please see the excavation summary below:

Overview of Activities:

Excavation limits for the Site were approximately 10' x 10' x 4' (approx. 15 cubic yards), and approximately 25' x 25' x 10' (approx. 232 cubic yards). Excavated soil was transported offsite to Buffalo Ridge Landfill for disposal. Buffalo Ridge Landfill also provided the backfill material

NFA will be considered when soil and/or groundwater (if encountered) concentrations are in compliance with ECMC Table915-1 standards.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 247

_____ Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Natural Attenuation

No _____ 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 initial 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 Quarterly Update

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:

Excavation limits for the Site were approximately 10' x 10' x 4' (approx. 15 cubic yards), and approximately 25' x 25' x 10' (approx. 232 cubic yards). Excavated soil was transported offsite to Buffalo Ridge Landfill for disposal. Buffalo Ridge Landfill also provided the backfill material.

Volume of E&P Waste (solid) in cubic yards 247

E&P waste (solid) description petroleum impacted soils

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Buffalo Ridge Landfill

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

E&P waste (liquid) description n/a

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: n/a

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. 05/19/2023

Proposed date of completion of Reclamation. 12/31/2028

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. 12/27/2022

Actual Spill or Release date, or date of discovery. 05/30/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/19/2023

Proposed site investigation commencement. 08/25/2025

Proposed completion of site investigation. 12/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/31/2025

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:

OPERATOR COMMENT

This submittal serves as a quarterly update for additional excavation activities and confirmation/background sampling for the Guttersen State CC 20-03 (REM 27303).

Operator has completed excavation activities and the data is currently pending receipt from the laboratory and review for data analysis. The Operator will continue to provide quarterly reporting and submit additional reports when available.

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: Michael LeFrancois

Title: Environmental Consultant

Submit Date: 09/13/2025

Email: michael.lefrancois@erm.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: 27303

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

404089319	FORM 27-SUPPLEMENTAL-SUBMITTED
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Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

Environmental	<p>ECMC has denied this form without technical review as Operator has provided no analytical or site investigation data showing progress of remediation of impacts documented at this location.</p> <p>Per Rule 912.a.(1-2): Immediately upon discovering any Spills or Releases of E&P Waste, produced Fluids, or unauthorized Releases of natural gas that meet the criteria of Rules 912.b.(1).H, I, or J, regardless of size or volume, Operators will control and contain the Spill or Release to protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources. Operators will investigate, clean up, and document impacts resulting from Spills and Releases as soon as the impacts are discovered. Operator shall not delay execution of remedial or investigative actions while waiting for ECMC approval and should request expedited review if necessary.</p> <p>Operator shall conduct work in compliance with previously approved workplans and the 900 Series Rules. In accordanc</p>	10/27/2025
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Total: 1 comment(s)