

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404624871

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 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: <u>NOBLE ENERGY INC</u>	Operator No: <u>100322</u>	Phone Numbers
Address: <u>1099 18TH STREET SUITE 1500</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
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		Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33051 Initial Form 27 Document #: 403600140

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: <u>WELL</u>	Facility ID: _____	API #: <u>123-25275</u>	County Name: <u>WELD</u>
Facility Name: <u>FIRESTIEN 30-13</u>	Latitude: <u>40.460920</u>	Longitude: <u>-104.818670</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWNE</u>	Sec: <u>30</u>	Twps: <u>6N</u>	Range: <u>66W</u>
Meridian: <u>6</u>	Sensitive Area? <u>Yes</u>		

SITE CONDITIONS

General soil type - USCS Classifications SP 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

Bald Eagle Roost Site HPH 0.22mi SW
Freshwater Pond 0.24mi SW
Residential 0.07/0.13/0.16/0.18/0.21/0.25 mi SE, 0.21mi S, 0.12/0.16/0.22/0.24mi SW
Farm Structure 0.07/0.11mi SE, 0.24mi SW

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 Firestien 30-13 wellhead cut and cap and flowline abandonment.

On 04/04/24, the wellhead was cut and capped per ECMC rules. A confirmation soil sample was collected at the base of the excavation (WH01@6) and flowline riser at the wellhead on the eastern sidewall (FLR01@4). Additionally, soil samples were field screened at the N-S-W sidewalls of the wellhead excavation (WH01-N@4, WH01-W@4, WH01-S@4). Laboratory soil samples collected on 04/04/24 were deemed to be outside the temperature preservation range and resampling was conducted on 07/22/25 for sample location WH01 and FLR01. The results of the wellhead resampling event were summarized on a previous F27 # 404415361, which is pending ECMC review.

On 05/16/24, approximately 1771' of flowline was abandoned in place (ABIP) per F44 # 403881619, due to location within active agricultural field. Soil samples were collected from below the flowline risers at the separator (FL01R-S@3') and wellhead (FL01R-W@4'). The flowline is currently planned for future removal, at which time soil samples will be 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.

Analytical results indicated that organic compound concentrations were below Table 915-1 in all decommissioning confirmation soil samples collected. Groundwater was not encountered during decommissioning.

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):

Soil samples were collected as described in the Initial Action Summary of this Form 27. Sampling deviated from the approved sampling plan in Initial Form 27 Document No. 403600140 because duplicate laboratory samples were collected at the wellhead flowline riser (FLR01@4'/FL01R-W@4').

Soil samples were analyzed by a certified laboratory, using approved ECMC laboratory analysis methods, for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per ECMC Table 915-1, EC, SAR, pH, and boron, and Table 915-1 metals.

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 groundwater sample will be collected and analyzed for all organic compounds and inorganic parameters 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):

Visual inspection of the wellhead and flowline occurred during decommissioning and abandonment activities. Field personnel screened all disturbed areas using visual and olfactory senses to determine if additional laboratory confirmation sampling was required. Detailed summaries of decommissioning and resampling activities, including field notes, site photos, figures, and laboratory analytical results for the wellhead and flowline were attached to previous F27 # 403858583 and F27 # 404415361 (pending ECMC review).

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 20

Number of soil samples exceeding 915-1 15

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

Approximate areal extent (square feet) 800

NA / ND

-- Highest concentration of TPH (mg/kg) 74.4

-- Highest concentration of SAR 1.9

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?

On 05/17/24, 4 background samples (BKG01) were collected at the nearby Firestein 30-13 Tank Battery (REM #33311). On 07/21/25, 6 backgrounds were collected (BKG02, BKG03) during site investigation activities. Backgrounds were collected from depths ranging from 0 to 7 feet bgs and were analyzed for Table 915-1 metals, pH, EC, SAR, and boron. BKG01@0-6" in invalid because materials at that depth are susceptible to surficial influence, & BKG02@6-7' barium concentration is omitted from background calculations due to the anomalous concentration observed.

The maximum background concentration observed for pH was 8.20. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium and lead were calculated to be 6.79 mg/kg, 130 mg/kg and 11.3 mg/kg, respectively. All arsenic concentrations observed during decommissioning were below background levels. Site concentrations of pH, barium, and lead exceeding background levels remain in-situ.

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?

Supplemental site investigation (SSI) activities will resume at a later date to collect remaining background samples from previously proposed borings BKG04-BKG06, and to collect newly proposed backgrounds BKG07 and BKG08. Background soil samples will be analyzed for Table 915-1 metals, pH, EC, SAR, and boron. The SSI proposed in F27 # 404186956 was partially completed on 07/21/25-07/22/25, and the results were attached to previous Form 27 Document No. 404415361, which is pending ECMC review as of the submittal of this form. Sampling will be completed in accordance with site investigation proposed in prior F27 # 404415361, and soil boring locations are illustrated in the proposed site investigation plan attached to prior F27 # 404415361. The SSI will be completed in accordance with the proposed implementation schedule, and the results will be submitted on a subsequent Form 27.

The flowline is currently planned for future removal, at which time soil sampling and screening samples will be taken along the flowline at any points of material change and/or hammer unions, and directional changes. Pursuant to the flowline removal, all laboratory analytical samples will be analyzed for full Table 915-1 contaminants of concern. 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.

A site assessment was conducted on 07/21/25-07/22/25 to delineate the pH and lead exceedances observed during decommissioning, re-collect soil samples at locations WH01@6 and FLR01@4 (per the Condition of Approval (COA) issued on Form 27 Document No. 403718024), and collect additional background samples. Borings BH01-BH07, encompassing sample locations WH01R and FL01R-WR, were advanced to delineate the pH exceedance observed at sample locations FL01RW@4', and to resample WH01@6 and FLR01@4. Soil samples were analyzed for all Table 915-1 contaminants. A total of 6 background soil samples were collected from borings BKG02-BKG03 to determine if elevated levels of pH and barium could be attributed to native soil conditions. Background samples were analyzed for Table 915-1 metals, pH, EC, SAR, and boron. Groundwater was not encountered during site investigation activities.

Supplemental site investigation (SSI) activities will resume at a later date to collect additional background samples BKG04-BKG08 and determine whether elevated pH, lead, and barium concentrations are indicative of native soil conditions. Sampling will be completed in accordance with the site investigation proposed in prior F27 # 404415361, which is pending ECMC review at the time of this submittal. Soil boring locations are illustrated in the proposed site investigation plan attached to prior F27 # 404415361. The SSI will be completed in accordance with the proposed implementation schedule, and the results 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 not encountered during the initial decommissioning or site investigation activities conducted to date.

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 Timeline 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 MWZZ 316714 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 reseeded 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. 04/04/2024

Proposed date of completion of Reclamation. 10/01/2027

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. 11/15/2023

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

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

Proposed site investigation commencement. 10/01/2026

Proposed completion of site investigation. 10/01/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/01/2026

Proposed date of completion of Remediation. 04/01/2027

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 not changed from the schedule proposed in approved F27 # 404486847. The site investigation at the Firestien 30-13 wellhead/flowline was unable to be completed on the previously scheduled date of 12/03/25 due to site location within Bald Eagle Roost Site High Priority Habitat (HPH). In accordance with the HPH timing limitation and due to landowner and land usage constraints (site located within alfalfa field), the SSI is scheduled to commence in 4Q26 following crop harvest. The ECMC will be notified of any updates to the implementation schedule in a subsequent Form 27.

OPERATOR COMMENT

This Form 27 is being submitted as a 2Q26 timeline update for the proposed site investigation at the Firestien 30-13 wellhead and flowline (REM #33051).

Please note, the results of the 3Q25 site investigation were included on prior F27 # 404415361, and is currently pending ECMC review.

The implementation schedule has not changed from the schedule proposed in approved F27 # 404486847. The site investigation at the Firestien 30-13 wellhead/flowline was unable to be completed on the previously scheduled date of 12/03/25 due to site location within Bald Eagle Roost Site High Priority Habitat (HPH). In accordance with the HPH timing limitation and due to landowner and land usage constraints (site located within alfalfa field), the SSI is scheduled to commence in 4Q26 following crop harvest. The ECMC will be notified of any updates to the implementation schedule in a subsequent Form 27.

Per ECMC Rule 913.e., quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the proposed SSI will be submitted on 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: Lo Blanchard

Title: Reg. Reporting Analyst

Submit Date: _____

Email: tas-chevron-5@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: 33051

<u>COA Type</u>	<u>Description</u>
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.

<u>Att Doc Num</u>	<u>Name</u>

Total Attach: 0 Files

General Comments

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

Total: 0 comment(s)