

State of Colorado
Energy & Carbon Management Commission

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404423288
Receive Date:
11/17/2025

Report taken by:
Abdul Elnajdi

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) 304-5000
City: DENVER State: CO Zip: 80202		Mobile: ()
Contact Person: Dan Peterson	Email: rbueuf27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 20470 Initial Form 27 Document #: 402837667

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: LOCATION	Facility ID: 323751	API #: _____	County Name: WELD
Facility Name: PETRIKIN-66N64W 34SENE	Latitude: 40.444690	Longitude: -104.529190	
** correct Lat/Long if needed: Latitude: 40.446200		Longitude: -104.529691	
QtrQtr: SENE	Sec: 34	Twp: 6N	Range: 64W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 481756	API #: _____	County Name: WELD
Facility Name: Petrikin A34-8 Tank Battery	Latitude: 40.446231	Longitude: -104.529526	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESE	Sec: 34	Twp: 6N	Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW _____

Most Sensitive Adjacent Land Use Crop Land _____

Is domestic water well within 1/4 mile? Yes _____

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

Industrial 0.05mi N
Freshwater Emergent Wetlands 0.03mi W
Riverine 0.03mi W, 0.13mi SW
Residential 0.23mi NE

Number of soil samples exceeding 915-1 8 -- Highest concentration of SAR 11.1

Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No

Approximate areal extent (square feet) 800 Vertical Extent > 915-1 (in feet) 15

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) 13 ND Highest concentration of Ethylbenzene (µg/l)

Number of groundwater monitoring wells installed 1 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?

A total of 21 background samples were collected at the site between March 28, 2022 and April 15, 2024, analysis varied and included pH, SAR, arsenic, barium, lead, and selenium. The maximum background concentrations of arsenic, barium, lead, and selenium with a 1.25x multiplier applied were calculated to be 11.1 milligrams per kilogram (mg/kg), 59.6 mg/kg, 15.8 mg/kg, and 1.86 mg/kg, respectively. The highest background levels for pH and SAR were observed to be 8.66 and 11.5, respectively. All arsenic and selenium concentrations observed during decommissioning and subsequent site investigations were observed to be less than 1.25x the maximum background levels.

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?

Concurrently with the remedial excavation proposed in the Remedial Action Plan section of this Form 27, a supplemental site investigation (SSI) will be completed to collect soil samples to analyze for the full ECMC Table 915-1 contaminants of concern at locations sampled during previous site investigations (BH06R, BH07, BH08 and BH09). A proposed soil boring location map is attached to this Form 27. During the SSI, additional background samples will be collected and analyzed for full Table 915-1 metals, pH, SAR, EC, and boron to determine if elevated lead, cadmium, barium, pH, and SAR is attributed to native soil conditions at the site and to determine a baseline for concentrations of metals and inorganic contaminants in native soil conditions at the site. 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.

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.

The organic compound exceedances encountered at sample locations FS01@5', FS01@6.5', SS01@2.5', BH07R2@6-7', and SS02R@2.5-3.5' will be removed via remedial excavation. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The results of the remedial excavation will be submitted on a subsequent Form 27.

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.

Initial decommissioning activities occurred on 03/03/2022. SSIs were previously completed on 03/28/2022, 02/27/2023, 02/28/2023, and 04/15/2024 to delineate organic and soil suitability exceedances at the site. These SSIs were previously summarized and comprehensive soil data was submitted under ECMC Document # 403904829. Organic compound exceedances were identified at SS01@2.5', FS01@5', and FS01@6.5' during initial decommissioning and previous site investigations.

An SSI was completed on 07/28/2025 and 07/29/2025 during which soil samples were collected to analyze for the full ECMC Table 915-1 contaminants of concern at locations sampled during initial decommissioning (SEP01-DL01@3', AST01@0.5', and SS01-SS04@2.5') and previous site investigations (FS02-FS05@6.5' and BH07R). Soil boring BH07R2 was advanced via geoprobe at the same location as FS01 and BH07 to resample these location and investigate whether groundwater was present. BH07R2 was advanced to refusal at 17' bgs. Soil samples were collected and analyzed for full ECMC Table 915-1 constituents. Organic compound exceedances were encountered at BH07R2@6-7' and SS02R@2.5-3.5' during the SSI. Elevated barium, cadmium, and/or selenium concentrations above the applicable regulatory screening levels and 1.25x the maximum background values were encountered at SEP01DL-01R@3-4', AST01R@0.5-1.5', SS03R@2.5-3.5', SS04R@2.5-3.5', BH07R2@11-12', and BH07R2@14-15'. No soil suitability exceedances above background values were identified. Groundwater was not encountered during the July 2025 site investigation activities.

An SSI will be completed to collect soil samples to analyze for the full ECMC Table 915-1 contaminants of concern at locations sampled during previous site investigations (BH06R, BH07, BH08, and BH09) in accordance with the attached proposed site investigation map, and proposed sampling plan outlined in the Site Investigation Report section of this Form 27.

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 encountered during site investigation activities on 03/28/2022 and sampled on 04/02/2022. One groundwater samples (FS01) was collected and submitted for laboratory analysis of BTEX, naphthalene, TMBs, TDS, chloride, and sulfate. Analytical results indicated organic compounds were not detected.

Soil boring BH07R2 was advanced via geoprobe at the same location as FS01 and BH07 to delineate impacts at that location and investigate the presence of groundwater. BH07R2 was advanced to refusal at 17' bgs. Soil samples were collected and analyzed for full ECMC Table 915-1 constituents. Groundwater was not encountered during site investigation activities. Therefore, no further groundwater investigation activities are warranted at this time.

REMEDATION 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 Supplemental Site Investigation (SSI) Sample Summary,
SSI & Supp. Source Mass Removal 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 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: \$ 65000 _____

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: _____

REMEDATION COMPLETION REPORT

REMEDATION 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 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. 03/03/2022

Proposed date of completion of Reclamation. 05/09/2027

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. 03/15/2022

Actual Spill or Release date, or date of discovery. 03/14/2022

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/03/2022

Proposed site investigation commencement. 12/18/2025

Proposed completion of site investigation. 12/18/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/10/2025

Proposed date of completion of Remediation. 06/30/2026

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:

The implementation schedule has been changed due to the completion of the July 2025 SSI at the Petrikin A34-08 Facility and necessity for remedial excavation and SSI activities adjacent to the tank battery. The proposed SSI is tentatively scheduled for commencement on 12/18/2025.

OPERATOR COMMENT

This Form 27 is being submitted to include the July 2025 supplemental site investigation (SSI) results and propose source removal and SSI activities for the Petrikin A34-08 Facility (Rem # 20470) location.

The previous Form 27 (ECMC Document # 404321446) was denied because no analytical or site investigation data showing progress of remediation of impacts documented at this location was included. Site investigation data is included as an attachment to this form (ECMC Document # 404423288).

The operator noted that laboratory analytical report #2404252 by Summit Scientific contained inconsistencies in nomenclature for sample IDs BH07, BH08, and BH09 collected during the April 2024 SSI. The attached site investigation report has been updated to match the executed chain-of-custody.

Initial decommissioning activities occurred on 03/03/2022. SSIs were previously completed on 03/28/2022, 02/27/2023, 02/28/2023, and 04/15/2024 to delineate organic and soil suitability exceedances at the site. These SSIs were previously summarized and comprehensive soil data was submitted under ECMC Document # 403904829. Organic compound exceedances were identified at SS01@2.5', FS01@5', and FS01@6.5' during initial decommissioning and previous site investigations.

An SSI was completed on 07/28/2025 and 07/29/2025 during which soil samples were collected to analyze for the full ECMC Table 915-1 contaminants of concern at locations sampled during initial decommissioning (SEP01-DL01@3', AST01@0.5', and SS01-SS04@2.5') and previous site investigations (FS02-FS05@6.5' and BH07R). Soil boring BH07R2 was advanced via geoprobe at the same location as FS01 and BH07 to resample these location and investigate whether groundwater was present. BH07R2 was advanced to refusal at 17' bgs. Soil samples were collected and analyzed for full ECMC Table 915-1 constituents. Organic compound exceedances were encountered at BH07R2@6-7' and SS02R@2.5-3.5' during the SSI. Elevated barium, cadmium, and/or selenium concentrations above the applicable regulatory screening levels and 1.25x the maximum background values were encountered at SEP01DL-01R@3-4', AST01R@0.5-1.5', SS03R@2.5-3.5', SS04R@2.5-3.5', BH07R2@11-12', and BH07R2@14-15'. No soil suitability exceedances above background values were identified. Groundwater was not encountered during the July 2025 site investigation activities.

The organic exceedances encountered at soil sample locations FS01@5', FS01@6.5', SS01@2.5', BH07R2@6-7', and SS02R@2.5-3.5' will be removed via remedial excavation. Concurrently with the remedial excavation, an SSI will be completed to collect soil samples to analyze for the full ECMC Table 915-1 contaminants of concern at locations sampled during previous site investigations (BH06R, BH07, BH08 and BH09). A proposed soil boring location map is attached to this Form 27. During the SSI, additional background samples will be collected and analyzed for full Table 915-1 metals, pH, SAR, EC, and boron to determine if elevated lead, cadmium, barium, pH, and SAR is attributed to native soil conditions at the site and to determine a baseline for concentrations of metals and inorganic contaminants in native soil conditions at the site. The proposed SSI is tentatively scheduled for commencement on 12/18/2025.

Pursuant to Rule 913.e, quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the SSI and remedial excavation 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: Michael Liston

Title: Environmental Consultant

Submit Date: 11/17/2025

Email: tas-chevron-3@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: Abdul Elnajdi

Date: 01/22/2026

Remediation Project Number: 20470

COA Type

Description

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

404423288	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404434182	SITE INVESTIGATION REPORT
404434183	SITE INVESTIGATION PLAN
404434184	LABORATORY ANALYTICAL REPORT
404434185	LABORATORY ANALYTICAL REPORT
404515489	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 6 Files

General Comments

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

Total: 0 comment(s)