

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Kilian Collins

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>
Contact Person: <u>Dan Peterson</u>	Email: <u>RBUEUF27@chevron.com</u>	Phone: <u>(970) 304-5000</u>
		Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 30092 Initial Form 27 Document #: 403423252

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: <u>LOCATION</u>	Facility ID: <u>317755</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>STATE (ACCO-TERRA ET.AL.)-63N63W 20CSW</u>	Latitude: <u>40.207178</u>	Longitude: <u>-104.466340</u>	
** correct Lat/Long if needed: Latitude: <u>40.206577</u>		Longitude: <u>-104.466710</u>	
QtrQtr: <u>CSW</u>	Sec: <u>20</u>	Twp: <u>3N</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>
Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>489231</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>State (ACCO-TERRA Et-A1)-63N63W 20</u>	Latitude: <u>40.206788</u>	Longitude: <u>-104.466657</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWSW</u>	Sec: <u>20</u>	Twp: <u>3N</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SW _____

Most Sensitive Adjacent Land Use Rangeland _____

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

Pronghorn Winter Concentration Area
Intermittent Riverine 0.09mi SW, 0.39mi NE; emergent wetland 0.30mi SW
FEE/STATE Related Facility ID #317755
National Wetlands Inventory: Riverine approximately 540 ft west of location and 2205 ft east of wellhead.
Freshwater emergent approximately 1450 ft southwest of location
HPH: Pronghorn Winter Concentration approximately 3150 ft north of location.
Facility ID #469881 3" Multiphase Carbon Steel

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.

A site investigation was conducted pursuant to ECMC Rule 911 at the State (Acco-Terra et al) 63N63W Facility and Tank Battery location on 12/18/2024.

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):

Grab confirmation soil samples were collected from the produced water vessel(s) excavation, beneath the ground oil tank(s), and at the risers for the flowline(s) and dumpline(s) of any separator(s). Soil samples were 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 were 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 during the site investigation, a grab groundwater sample will be collected and analyzed for all organic compounds and inorganic parameters per ECMC 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 tank battery area occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil	NA / ND
Number of soil samples collected <u>13</u>	ND Highest concentration of TPH (mg/kg) _____
Number of soil samples exceeding 915-1 <u>1</u>	-- Highest concentration of SAR <u>0.273</u>

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

BTEX > 915-1 No

Approximate areal extent (square feet) 100

Vertical Extent > 915-1 (in feet) 2

Groundwater

Number of groundwater samples collected 0

Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? Yes

Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____

Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

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?

Three background soil samples were collected on 12/18/2024 and an additional twelve background samples were collected from three soil borings near the tank battery on 9/9/2025. Background samples were collected from depths ranging from 0.5 to 4 feet below ground surface (ft bgs) and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The maximum background concentration for pH was 8.42. The maximum background concentrations with a 1.25x multiplier applied for arsenic was observed to be 3.013 mg/kg. Upon receiving final laboratory analytical results, soil samples indicated that all analytes were in compliance with Table 915-1, with the exception of pH for sample AST01-SB@1.5' at 4.49 standard units.

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?

An additional Supplemental Site Investigation (SSI) will be completed to vertically and horizontally delineate the pH exceedance (4.49 standard units) observed at AST01-SB@1.5'. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (5+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1 to determine if the pH exceedance observed at AST01-SB@1.5' is attributed to native soil conditions at the site. A proposed soil sample location figure is attached to this form; a proposed remedial excavation figure is attached to the Form 27 Doc. #404338234, currently "In Process" on webforms.

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.

A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal.

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.

An additional SSI will be completed to vertically and horizontally delineate the pH exceedance (4.49 standard units) observed at AST01-SB@1.5'; samples collected will be submitted for Full Table 915-1. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (5+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1 to determine if the pH exceedance observed at AST01-SB@1.5' is attributed to native soil conditions at the site. A proposed soil sample location figure is attached to this form; a proposed remedial excavation figure is attached to the Form 27 Doc. #404338234, currently "In Process" on webforms.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)
_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

_____ 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 initial tank battery decommissioning or SSI activities.

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 Quarterly Update, SSI Sample Summary and SSI 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: \$ 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: _____

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? 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. 12/18/2024

Proposed date of completion of Reclamation. 03/31/2028

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. 05/11/2023

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/18/2024

Proposed site investigation commencement. 03/31/2025

Proposed completion of site investigation. 06/30/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/30/2026

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:

The implementation schedule has been changed due to the completion of the initial supplemental site investigation of the former State (Acco-Terra et al) 63N63W tank battery and the necessity for additional supplemental site investigation (SSI) activities and remedial excavation adjacent to the tank battery. The SSI activities and remedial excavation are tentatively scheduled to take place by the end of 2Q 2026.

OPERATOR COMMENT

This form is being submitted to provide a 3Q 2025 update, SSI sample summary, and SSI proposal for State (Acco-Terra et al) 63N63W tank battery and facility (REM #30092). The 1Q 2025 Form 27 Doc. #404129860, 2Q 2025 Doc.#404230219, and 3Q2025 Doc. #404338234 are currently "In Process" on Web Forms.

An SSI was conducted on 9/9/2025; thirteen soil samples were collected to delineate the pH exceedances observed at sample locations AST01, SEP01-FL, and SEP01-DL. On 9/9/2025, twelve background samples were collected from three soil borings near the tank battery. Background samples were collected from depths ranging from 0.5 to 4 ft bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The maximum background concentration for pH was 8.42. The maximum background concentrations with a 1.25x multiplier applied for arsenic was observed to be 3.013 mg/kg. Upon receiving final laboratory analytical results, soil samples indicated that all analytes were in compliance with Table 915-1, with the exception of pH for sample AST01-SB@1.5' at 4.49 standard units. The site investigation report and analytical results are attached to this form.

An additional SSI will be completed to vertically and horizontally delineate the pH exceedance (4.49 standard units) observed at AST01-SB@1.5'; samples collected will be submitted for Full Table 915-1. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (5+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1 to determine if the pH exceedance observed at AST01-SB@1.5' is attributed to native soil conditions at the site. A proposed soil sample location figure is attached to this form; a proposed remedial excavation figure is attached to the Form 27 Doc. #404338234, currently "In Process" on webforms.

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: Scott Williamson

Title: Environmental Consultant

Submit Date: 11/20/2025

Email: northerncoloradoPM@montrose-env.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: Kilian Collins

Date: 01/27/2026

Remediation Project Number: 30092

COA Type

Description

COA Type	Description
1 COA	Operator shall prioritize remediation of the known impacts over investigation of pH exceedances. This release was discovered on 12/18/24, 405 days ago as of review of this form, and to date no remedial excavation has been completed as previously proposed. Operator is not in compliance with Rule 912.

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

Att Doc Num	Name
404434497	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404434927	LABORATORY ANALYTICAL REPORT
404434930	LABORATORY ANALYTICAL REPORT
404438745	SITE INVESTIGATION PLAN
404442321	SITE INVESTIGATION REPORT
404521035	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 6 Files

General Comments

User Group

Comment

Comment Date

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)