

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
404229818
Receive Date:
06/09/2025

Report taken by:
Nick Cholas

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>danpeterson@chevron.com</u>	Phone: <u>(970) 730-7281</u>
		Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 29158 Initial Form 27 Document #: 403389806

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>322600</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>EASTON-64N65W 12NWNW</u>	Latitude: <u>40.332370</u>	Longitude: <u>-104.618240</u>	
	** correct Lat/Long if needed: Latitude: <u>40.332268</u>	Longitude: <u>-104.619434</u>	
QtrQtr: <u>NWNW</u>	Sec: <u>12</u>	Twp: <u>4N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>484950</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Easton T4N-R65W-S12 L02</u>	Latitude: <u>40.332211</u>	Longitude: <u>-104.619426</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>NWNW</u>	Sec: <u>12</u>	Twp: <u>4N</u>	Range: <u>65W</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

Bald Eagle Active Nest Site - Half Mile Buffer
Intermittent Riverine Wetlands 20ft E (Gilmore Ditch), Holding Pond 0.16mi NNE, 0.21mi SW
Farm Structures 0.01/0.01/0.01/0.02 W
Residential 0.04 W
No other potential receptors are located within 1/4 mile of the Site.
Above distances are approximations.

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
No	GROUNDWATER	NA	Lab analysis if encountered
Yes	SOILS	40'x50'x7' deep	Field Screening and Lab Analysis

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 EASTON T4N-R65W-S12 L02 Facility and Tank Battery location.

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 TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, and boron. All samples collected will be 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):

A grab groundwater sample was collected during the remedial excavation activities conducted on July 9, 2024. The sample was analyzed for all organic compounds.

If additional groundwater is encountered during subsequent site investigation activities, a grab sample will be collected and analyzed for all organic compounds and inorganic parameters in accordance with 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. The ECMC Tank Battery and Produced Water Vessel Closure Checklists was utilized and filled out during the abandonment process. A photolog was attached.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 17

ND Highest concentration of TPH (mg/kg) _____

Number of soil samples exceeding 915-1 13 -- Highest concentration of SAR 5.37
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No
 Approximate areal extent (square feet) 1300 Vertical Extent > 915-1 (in feet) 7

Groundwater

Number of groundwater samples collected 1 ND Highest concentration of Benzene (µg/l) _____
 Was extent of groundwater contaminated delineated? Yes ND Highest concentration of Toluene (µg/l) _____
 Depth to groundwater (below ground surface, in feet) 7 ND Highest concentration of Ethylbenzene (µg/l) _____
 Number of groundwater monitoring wells installed 0 ND Highest concentration of Xylene (µg/l) _____
 Number of groundwater samples exceeding 915-1 0 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?

Fifteen background soil samples were collected from an area not impacted by oil and gas development and at similar depths and lithologies as confirmation soil samples collected at the location and analyzed for Table 915-1 metals and SSR constituents. Background soil sample analytical results were reported with elevated levels of SAR, Arsenic (As), Barium (Ba), Cadmium (Ca) and Lead (Pb).

Background Soil Sample Analysis (mg/kg)

SAR @ 0.5ft: Max = 1.73
 SAR @ 4ft: Max = 16.3
 SAR @ 5.5ft: Max = 5.12
 As @ 0.5ft: Max*1.25 = 1.06
 As @ 4ft: Max*1.25 = 1.19
 As @ 5.5ft: Max*1.25 = 2.31
 Ba @ 0.5ft: Max*1.25 = 91.4
 Ba @ 4ft: Max*1.25 = 128
 Ba @ 5.5ft: Max*1.25 = 86.8
 Ca @ 0.5ft: Max*1.25 = 0.338
 Ca @ 4ft: Max*1.25 = 0.433
 Ca @ 5.5ft: Max*1.25 = 0.296
 Pb @ 0.5ft: Max*1.25 = 20.0
 Pb @ 4ft: Max*1.25 = 15.3
 Pb @ 5.5ft: Max*1.25 = 15.8

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?

Confirmation samples AST01@1.0', PWVE01@5.0', PWVB01@6.0' and FL06@4.0' at the former Easton T4N-R65W-S12 L02 Tank Battery were submitted out of temperature preservation range. Soil will be re-sampled and analyzed for the full Table 915-1 analyte suite at the AST01@1.0', PWVE01@5.0', PWVB01@6.0' and FL06@4.0' sample locations at the same depth where the initial confirmation samples were collected in order to confirm initial analytical results. Noble will request a No Further Action (NFA) be granted if the reanalyzed samples comply with the Table 915-1 concentration standard. Background samples will be used to justify elevated concentrations.

In addition to previously collected background samples, additional local samples will be collected to further characterize native soils.

Refer to the attached site investigation plan for re-sample and additional background sample locations

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The organic compound exceedances observed at sample location SEP01@4.0' were removed through a remedial excavation. Remedial excavation confirmation soil samples were collected and analyzed for full ECMC Table 915-1 constituents.

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.

Laboratory analytical results indicated that a historical release had occurred at the location of soil sample SEP01@4.0', and this was reported as a historic release in Form 19, document number 403506136.

Impacted soil was removed from the Easton location by excavation. The removal was confirmed through analysis of soil samples collected from the exterior sidewalls and the floor of the excavation. These confirmation samples reported concentrations below the ECMC Table 915-1 PGSSLs for organic petroleum constituents at the completion of the excavation. Groundwater collected from the floor of the excavation also met the ECMC Table 915-1 standards. In total, approximately 235 cubic yards of impacted soil were removed from the site and transported to a landfill. The associated soil data are illustrated and summarized in the attached tables and figures.

The Operator proposes to resample and analyze for the full Table 915-1 analyte suite at sample locations B1@7', B2@7', SW1@2', W1@2', W2@2', E1@2', E2@2', N1@2', N2@2', NW1@2', SW1@2', and E2@2'. The purpose of this additional sampling is to verify the presence of inorganics and metal concentrations that may be greater than the natural variability observed in the location's background soil samples.

If the results of the reanalyzed samples comply with their respective Table 915-1 concentration standards, the Operator will request that a no further action designation be granted. If the reanalyzed samples exceed the Table 915-1 concentration standards, the Operator will evaluate remedial options to address elevated concentrations of metals and/or site-specific risk constituents remaining in situ.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 235

_____ 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

No _____ Bioremediation (or enhanced bioremediation)

No _____ Chemical oxidation

No _____ Air sparge / Soil vapor extraction

No _____ Natural Attenuation

No _____ 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.

A groundwater sample (GW01) was collected from the floor of the remedial excavation in July 2024 at a depth of seven feet and submitted to Summit Scientific, Inc. in Golden, Colorado for analysis of organic petroleum constituents, including benzene, toluene, ethylbenzene, xylenes (BTEX), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene, using EPA Method 8260B.

The laboratory analysis indicated that the groundwater sample met the ECMC Table 915-1 organic standards. Groundwater chemistry results are presented on Figure 6, and analytical data are summarized in Table 6 of the attached documentation under document number 404023059.

Based on the laboratory analytical data obtained from the confirmation groundwater sample collected on July 9, 2024, implementation of a groundwater monitoring plan is not warranted at this time.

To confirm the initial analytical results and obtain additional data for inorganic constituents—specifically chloride ion, sulfate ion, and total dissolved solids (TDS)—the Operator proposes to install a soil boring at the location where the GW01 sample was previously collected. This boring will be completed as a temporary PVC monitoring well.

Pending confirmation that the reanalyzed sample results comply with the concentration standards outlined in Table 915-1, Noble intends to submit a request for a No Further Action (NFA) determination.

Refer to the attached Site Investigation Plan for the proposed location of the temporary monitoring well.

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 & Additional Supplemental Site Investigation 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 (policy 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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards _____ 235

E&P waste (solid) description Hydrocarbon impacted soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: North Weld Landfill in Ault, CO

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

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. 06/30/2027

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. 03/22/2023

Actual Spill or Release date, or date of discovery. 08/22/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/07/2023

Proposed site investigation commencement. 06/01/2023

Proposed completion of site investigation. 12/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/09/2024

Proposed date of completion of Remediation. 12/31/2025

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 revised to account for the need to conduct additional supplemental site investigation activities in the area adjacent to the former Easton T4N-R65W-S12 L02 Tank Battery. The proposed site investigation will be completed following approval of this request. Refer to the operator comment segment for further details.

OPERATOR COMMENT

This Form 27 is being submitted as a Q2 2025 timeline update for the former Easton T4N-R65W-S12 L02 Tank Battery location and to propose an additional supplemental site investigation in accordance with ECMC requirements.

As previously approved (Document No. 404023059), soil resampling will be conducted at the B1@7', B2@7', SW1@2', W1@2', W2@2', E1@2', E2@2', N1@2', N2@2', NW1@2', SW1@2', and E2@2' confirmation sample locations, originally collected during remedial excavation activities in July 2024. These samples will be reanalyzed to verify the presence or absence of elevated inorganic and metal concentrations.

In addition to the approved soil resampling, the Operator proposes to install a soil boring at the location where groundwater sample GW01 was previously collected. This boring will be completed as a temporary PVC monitoring well to confirm the initial analytical results and to obtain additional data for inorganic constituents, specifically chloride ion, sulfate ion, and total dissolved solids (TDS).

The Operator also proposes to conduct an additional supplemental site investigation to address data quality concerns identified during decommissioning activities conducted in August 2023. Specifically, resampling will be performed at confirmation sample locations AST01@1.0', PWVE01@5.0', PWVB01@6.0', and FL06@4.0', where the original samples were submitted outside the required temperature preservation range. The purpose of this resampling is to confirm the original analytical results and to ensure compliance with ECMC data quality and accuracy standards.

Additional characterization of native soil conditions will be conducted during the supplemental investigation. Please refer to the attached Site Investigation Plan for proposed sample locations.

The proposed site investigation activities are described in detail in the attached Site Investigation Report workplan, Remedial Action Plan, and Groundwater Monitoring Workplan. The Operator will complete the previously approved resampling activities upon and proceed with the additional supplemental site investigation tasks outlined in the workplan.

Quarterly reporting will continue until the remediation project closure criteria are achieved. The results of the supplemental site investigation will be submitted with 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: Ethan Black

Title: Consultant

Submit Date: 06/09/2025

Email: ethanb@fremontenv.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: Nick Cholas

Date: 12/17/2025

Remediation Project Number: 29158

COA Type

Description

	See comments/COA's on SF27 Doc #404467881. SF27 Doc #404467881 is the most recent submittal for REM #29158.
1 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

404229818	FORM 27-SUPPLEMENTAL-SUBMITTED
404233060	SITE INVESTIGATION PLAN

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

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

Total: 0 comment(s)