

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:
404162134
Receive Date:
07/29/2025
Report taken by:
RICK ALLISON

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		Mobile: ()
Contact Person: Dan Peterson	Email: danpeterson@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 38263 Initial Form 27 Document #: 404005826

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: 419021	API #: _____	County Name: WELD
Facility Name: LDS E25-32	Latitude: 40.456260	Longitude: -104.619940	
** correct Lat/Long if needed: Latitude: 40.456271		Longitude: -104.620398	
QtrQtr: NWSW	Sec: 25	Twp: 6N	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 489512	API #: _____	County Name: WELD
Facility Name: LSD E25-32 FLARE 2	Latitude: 40.455911	Longitude: -104.620422	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWSW	Sec: 25	Twp: 6N	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 489513 API #: County Name: WELD
Facility Name: LSD E25-32 SEP02-FL Latitude: 40.455978 Longitude: -104.620430
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSW Sec: 25 Twp: 6N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 489514 API #: County Name: WELD
Facility Name: LSD E25-32 AST01, and AST02 Latitude: 40.456309 Longitude: -104.620413
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSW Sec: 25 Twp: 6N Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW 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

Emergent Scrub/Shrub Wetland 0.16mi NE, Ditch 0.18mi NE
Farming Structure 0.14mi SSE, 0.14/0.15mi S
Residential Structure 0.16mi S

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 if encountered
Yes	SOILS	Refer to Table and Figures	Lab Analysis an 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 LDS T6N-R65W-S25 L01 Facility and Tank Battery location on February 21st, 2025.

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 was collected from the produced water vessel(s) excavation, beneath the ground oil tank(s), at the risers for the flowline(s) and dumphine(s) of any separator(s). In addition, the on-site dump lines located between the separator and tank battery were removed by pulling from either end. 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, grab groundwater samples will be collected and analyzed for all organic and inorganic compounds 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 will field screen all disturbed areas using visual and olfactory senses. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, is attached to this Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil	NA / ND
Number of soil samples collected <u>11</u>	-- Highest concentration of TPH (mg/kg) <u>1116C</u>

Number of soil samples exceeding 915-1 11

-- Highest concentration of SAR 11.2

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

BTEX > 915-1 Yes

Approximate areal extent (square feet) 400

Vertical Extent > 915-1 (in feet) 4

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?

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?

A supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the organic and inorganic compound exceedances observed during decommissioning. A proposed SSI map is attached to this Form 27. During the SSI, soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. Concurrently with the SSI, background samples will be collected to determine pH, SAR, arsenic, barium, and selenium are attributed to 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.

Refer to the Remediation Summary section below.

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 supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the organic exceedances observed at sample locations AST01@0-6", AST02@0-6", FLARE02@0-6", and SEP02-FL@4' during decommissioning, 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
____ Other _____

____ 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 decommissioning 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 Decommissioning Sample Summary & 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 (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:

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 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. 02/21/2025

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. 08/26/2024

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/21/2025

Proposed site investigation commencement. 04/30/2025

Proposed completion of site investigation. 10/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/30/2025

Proposed date of completion of Remediation. 04/30/2026

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 decommissioning of the LDS E25-32 tank battery and necessity for supplemental site investigation activities adjacent to the tank battery. The proposed site investigation will be completed following the approval of this form.

OPERATOR COMMENT

This Form 27 is being submitted to include the decommissioning results and historical releases discovered at the former LDS E25-32 Tank Battery location.

Tank battery decommissioning activities occurred at the above referenced location on February 21, 2025. Discrete soil samples were collected from beneath the former facility infrastructure as described in the approved Form 27-Initial (Document number 404005826). Analytical results indicated that soil samples AST01@0-6", AST02@0-6", FLARE02@0-6", and SEP02-FL@4' exhibited organic compound concentrations in exceedance of the regulatory standards.

A supplemental site investigation (SSI) will be completed to vertically and horizontally delineate the organic exceedances observed at sample locations AST01@0-6", AST02@0-6", FLARE02@0-6", and SEP02-FL@4' during decommissioning, in accordance with the attached proposed site investigation map, and proposed sampling plan outlined in the Site Investigation Report section of this Form 27.

Quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the supplemental site investigation 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: Ben Wagner

Title: Environmental Consultant

Submit Date: 07/29/2025

Email: bwagner@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: RICK ALLISON

Date: 09/16/2025

Remediation Project Number: 38263

COA Type

Description

	Results for volatile organic compounds in soil samples analyzed by EPA Method 8260 appear to have been analyzed beyond the recommended holding time per SW-846. Operator shall verify all VOC results at all sample locations as part of ongoing Remediation Project 38263.
	Operator has not provided a site map showing the locations of soil samples collected during the February 21, 2025 soil sampling event. On the next Supplemental Form 27, Operator shall provide a map that shows the locations of all soil samples collected at the location.
2 COAs	

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

404162134	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404170387	SITE INVESTIGATION REPORT
404190607	SITE INVESTIGATION PLAN
404298418	ANALYTICAL RESULTS
404355560	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 5 Files

General Comments

User Group

Comment

Comment Date

Environmental	Operator resubmitted form on 7/29/2025	09/16/2025
Environmental	received 5/5/2025, returned to draft 5/21/2025: attach supporting laboratory analytical report(s) and resubmit	05/21/2025

Total: 2 comment(s)