

State of Colorado
Energy & Carbon Management Commission

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



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Report taken by:
Chris Sanchez

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 ECOM 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 #: 33389 Initial Form 27 Document #: 403606443

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>306236</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>WOLFE-USX CC-64N63W 7SESW</u>	Latitude: <u>40.321420</u>	Longitude: <u>-104.482580</u>	
	** correct Lat/Long if needed: Latitude: <u>40.319991</u>	Longitude: <u>-104.482872</u>	
QtrQtr: <u>SESW</u>	Sec: <u>7</u>	Twp: <u>4N</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>486993</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wolfe USX CC07-16</u>	Latitude: <u>40.319964</u>	Longitude: <u>-104.482526</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>SESW</u>	Sec: <u>7</u>	Twp: <u>4N</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 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

holding pond 0.10mi W, 0.14mi SW, 0.20mi NW

Farming Structures

0.05/0.06mi S, 0.07/0.09/0.19/0.21/0.23/0.24mi SW, 0.04/0.05/0.06/0.09/0.11/0.12/0.13/0.15mi N, 0.04/0.05/0.06/0.09/0.11/0.13/0.15 mi NW

Residential Structures

0.08/0.09/0.22mi SW, 0.12mi N, 0.13mi NW

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 analytical tables & figure	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 WOLFE USX T4N-R63W-S7 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 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 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 and field screening 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 is required.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil	NA / ND
Number of soil samples collected <u>5</u>	ND Highest concentration of TPH (mg/kg) _____
Number of soil samples exceeding 915-1 <u>5</u>	-- Highest concentration of SAR <u>0.128</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) 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?

25 background soil samples (BKG01 - BKG05) were collected near the tank battery and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Background soil samples were collected from depths ranging between 0.5 to 4 feet below ground surface (ft. bgs). 9 background samples were collected from two locations (BKG01 & BKG02) under the nearby Wolfe USX CC07-23(REM# 33291) and submitted for analysis of pH, EC, SAR, boron, and the Table 915-1 metals suite. In addition, a review of background analytical data in the nearby area was conducted. The UPV 13-0214 (REM#30786) location is located approximately 0.25 mi west of the Wolfe USX CC07-16 location, in the neighboring plot of land, and classified with similar soil classifications (Loam). The two soil borings (BH21 and BH23), being used in the background assessment, were advanced in native material. An in-depth discussion of background concentrations compared to site concentrations is included in the Operators Comment.

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 boron exceedance at SEP01-DL@3', and to collect additional background samples to further evaluate native soil conditions at the site. During the SSI, soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. 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.

On November 13, 2024, approximately 10 cubic yards (cy) of impacted material were removed from the former AST location during remedial excavation activities.

All impacted soils removed from site were transported to the Buffalo Ridge Landfill in Keenesburg, CO for disposal under Noble waste manifests.

REMIEDIATION 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.

Remedial excavation activities were conducted on November 13, 2024, to remove remaining hydrocarbon impacts recorded at former sample location AST01@0-6". Following excavation activities, five confirmation soil samples (SS01 - SS05) were collected from the base and sidewalls of the final excavation extent at depths ranging from 1 to 2 feet bgs.

All confirmation soil samples were analyzed for the full Table 915-1 suite. Analytical results for soil samples collected the final excavation extent indicated that all organic compounds were compliant with Table 915-1.

A site assessment was conducted on 1/14/2025 to collect background samples to determine if pH, boron, arsenic, and barium are attributed to native soil conditions at the site, during which five soil borings (BKG01 - BKG05) were advanced. Soil samples were collected and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Groundwater was not encountered during this assessment. All arsenic levels observed during decommissioning and remedial excavation activities were below background levels.

A supplemental site investigation (SSI) will be completed to confirm and further vertically and horizontally delineate boron exceedance observed at SEP01-DL@3 during decommissioning. The SSI will be completed 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)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 10

_____ 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 not encountered during initial decommissioning, remedial excavation activities, or site investigation activities conducted at the former facility.

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 Confirmation 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 (policy MWZZ 316714) and financial assurance in compliance with ECMC rules. Records are available on the ECMC's website. 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? Yes

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 10

E&P waste (solid) description Impacted soils

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Buffalo Ridge Waste Management

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? _____

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. 05/02/2024

Proposed date of completion of Reclamation. 10/01/2026

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. 06/07/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/02/2024

Proposed site investigation commencement. 08/29/2025

Proposed completion of site investigation. 08/29/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 08/29/2025

Proposed date of completion of Remediation. 04/01/2026

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:

Proposed completion of site investigation date is being updated to reflect the completion of the SSI at the former Wolfe USX CC07-16 tank battery, and necessity for additional supplemental site investigation activities adjacent to the tank battery. The proposed site investigation will be completed following the approval of this form, and is tentatively scheduled for August 29, 2025.

OPERATOR COMMENT

This Form 27 is being submitted to include the supplemental site investigation (SSI) results for the former Wolfe USX CC07-16 Tank Battery location.

A site assessment was conducted on 1/14/2025 to collect background samples to determine if pH, boron, arsenic, and barium are attributed to native soil conditions at the site, during which five soil borings were advanced (BKG01 - BKG05). Soil samples were collected and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Groundwater was not encountered during this assessment. Nine background samples were collected from two locations (BKG01 & BKG02) under the nearby Wolfe USX CC07-23 flowline project (REM# 33291) and submitted for analysis of pH, EC, SAR, boron, and the Table 915-1 metals suite.

A review of background analytical data in the nearby area was conducted. The UPV 13-0214 (REM#30786) location is located approximately 0.25 mi west of the Wolfe USX CC07-16 tank battery location, in the neighboring plot of land, and classified within similar soil classification (Loam). The two soil borings (BH21 and BH23), being used in the background assessment, were advanced in native material and were absent of organic detections. Based on this data, the inorganic and metals concentrations recorded in BH21 and BH23 are considered background concentrations and were used to compare to site concentrations at the Wolfe USX CC07-16 location. Based on the dissolved-phase results for groundwater samples collected from monitoring well BH22, this location was not considered indicative of background material. A site map showing the relative locations of the UPV 13-0214 and the Wolfe USX CC07-16 projects is attached as Figure 7. The maximum background concentration for pH was observed to be 9.22. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and cadmium were calculated to be 4.83 mg/kg, 276 mg/kg, and 0.515 mg/kg, respectively. All arsenic, barium, and pH levels observed during decommissioning and remedial excavation activities were below background levels.

A supplemental site investigation (SSI) will be completed to confirm and further vertically and horizontally delineate boron exceedance observed at SEP01-DL@3 during decommissioning. The SSI will be completed 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 sample FL01R-S was collected during the decommissioning of the associated Wolfe USX CC07-16 flowline. The cadmium concentration observed in this soil sample is being addressed under remediation project number 33295.

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: 04/17/2025

Email: tas-chevron-4@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: Chris Sanchez

Date: 11/26/2025

Remediation Project Number: 33389

COA Type

Description

	All ongoing/unaddressed comments/COAs from previous Forms remain applicable.
	Operator shall continue Quarterly Reporting until the Site Assessment is completed, and the remediation area demonstrates Compliance with Full Table 915-1 Standards.
	Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.
	Operator shall define the vertical and lateral extent of impacts to soil. Additional sampling is required to fully delineate the vertical and lateral impacts to soil Operator shall collect confirmation soil samples for Full Table 915-1 Contaminants of Concern
4 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

404136999	FORM 27-SUPPLEMENTAL-SUBMITTED
404137068	ANALYTICAL RESULTS
404166340	MONITORING REPORT

Total Attach: 3 Files

General Comments

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

Total: 0 comment(s)