

State of Colorado
Energy & Carbon Management Commission

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404167616
Receive Date:
04/17/2025

Report taken by:
Taylor Robinson

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>		Phone: <u>(303) 597-6847</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>()</u>
Contact Person: <u>Phillip Porter</u>	Email: <u>rbueuf27@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 22738 Initial Form 27 Document #: 403006052

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>329775</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>UPRC-64N67W 23NENW</u>	Latitude: <u>40.302666</u>	Longitude: <u>-104.859923</u>	
	** correct Lat/Long if needed: Latitude: <u>40.304722</u>	Longitude: <u>-104.867188</u>	
QtrQtr: <u>NENW</u> Sec: <u>23</u> Twp: <u>4N</u> Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>482464</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>UPRC T4N-R67W-S23 Tank Battery</u>	Latitude: <u>40.304673</u>	Longitude: <u>-104.867302</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>NENW</u> Sec: <u>23</u> Twp: <u>4N</u> Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Crop Land

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

Farm Structures 0.24mi W

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	Not encountered
Yes	SOILS	20'x20'x10'	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 UPRC T4N-R67W-S23 L01 Tank Battery location.

Four (4) grab confirmation soil samples were collected from the produced water vessel excavation (2), beneath the ground oil tank (1), and at the separator (1). Soil samples were analyzed by a certified laboratory for ECMC Table 915-1 compounds, EC, SAR, pH, and boron. One (1) waste characterization sample for ECMC Table 915-1 metals was collected. All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

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):

An additional site investigation will be completed to collect confirmation samples of previously collected samples and to collect additional background samples. Sixteen soil boring locations will be completed. Eleven samples will be collected to provide confirmation for the following prior samples: TB-SS-01 @ 1', TB-SS-02 @ 3', EX-FS-01 @ 10', EX-SS-01 @ 9', EX-SS-02 @ 9', EX-SS-03 @ 9', EX-SS-04 @ 9', EX-SS-05 @ 9', EX-SS-06 @ 9', EX-SS-07 @ 9', EX-SS-08 @ 9'. Five additional background samples are proposed to be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare residual SSR and metal exceedances. Samples will be analyzed for the complete ECMC Table 915-1 list, except for background samples which will be analyzed for Table 915-1 metals and SSR. Proposed soil sample locations are included in an attached proposed soil sample location map.

Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? (Number, analyses, and locations of samples):

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 0
Number of soil samples exceeding 915-1 10
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 400

NA / ND

-- Highest concentration of TPH (mg/kg) 504.7
25
-- Highest concentration of SAR 0.448
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 10

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet)
Number of groundwater monitoring wells installed
Number of groundwater samples exceeding 915-1

Highest concentration of Benzene (µg/l)
Highest concentration of Toluene (µg/l)
Highest concentration of Ethylbenzene (µg/l)
Highest concentration of Xylene (µg/l)
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?

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 source was delineated through a subsurface assessment, in accordance with approved Form 27 Doc. # 403202600. Results of the subsurface assessment were provided on supplemental Form 27 Doc. # 403445684.
Residual petroleum hydrocarbon impacts identified at the site were removed through excavation. Soil samples were collected for analysis of TPH C6-36, Table 915-1 organics in soil, pH, and ECMC Table 915-1 metals, per supplemental Form 27 Doc. # 403445684. Soil samples were collected to confirm the vertical and lateral extents of the impacts following source removal.
Results of the excavation/confirmation sampling indicate that all current organic concentrations are in compliance with ECMC Table 915-1 regulatory limits. Residual pH, arsenic, and barium are consistent with background comparison. Residual selenium exceeds Protection of Groundwater Soil Screening Levels (GSSLs) in soil at the site and in backgrounds.

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.

Results of the excavation/confirmation sampling indicate that residual petroleum hydrocarbon impacts have been vertically and laterally defined.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 150

_____ 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 the assessment.

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 Quarterly Update

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.

Operator intends to directly address the costs of remediation at the locations as part of our asset retirement obligation process and operations. Operator has general liability insurance (policy MWZZ 316714) and financial assurance in compliance with ECMC rules. Records are available on the ECMC's website.

Operator anticipates the remaining cost for this project to be: \$ 10000

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 150

E&P waste (solid) description E&P solid waste derived from excavation activities.

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Waste Management (Ault)

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. Residual pH is consistent with background comparison and does not appear to require additional assessment or remediation.

Is the described reclamation complete? No

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. 06/09/2022

Proposed date of completion of Reclamation. 10/31/2028

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. 03/01/2022

Actual Spill or Release date, or date of discovery. 06/27/2022

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/09/2022

Proposed site investigation commencement. 05/30/2025

Proposed completion of site investigation. 12/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/09/2022

Proposed date of completion of Remediation. 06/30/2025

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:

Implementation schedule updated to reflect the schedule to complete the supplemental site investigation. The ECMC will be updated on a subsequent Form 27 with the results of the supplemental site investigation, or if the schedule is changed.

OPERATOR COMMENT

This form serves as a quarterly update. An additional site investigation will be completed to collect confirmation samples of prior samples and to collect additional background samples. Proposed soil sample locations are included in an attached proposed soil sample location map.

In regards to prior COAs on Form #27 document number 403928346, Background-02 @ 9-10', Background-03 @ 9-10', Background-04 @ 9-10' will be omitted from future background determination calculations. Background-01 @ 4' and samples labeled "WV", "TB" or "SB" were previously reported on figures in document number 403202692, an attachment to Form #27 document number 403202600. Background-01 @ 4' and samples labeled "WV", "TB" or "SB" will be included on supplemental form 27 figures, as necessary.

Based on currently available data, this project is not affected by data integrity irregularities and is not associated with Operator's data integrity review process and its Rule 525.e. Voluntary Disclosure. As part of its data integrity review process, Operator requested the lab protect the laboratory analytical reports from subsequent unauthorized modification by anyone outside the lab, which resulted in the lab reissuing the original reports with additional protections (Y403457, Y403488, Y403489, Y305714, Y206255, and Y206741). The Reissued Reports were received directly from the lab on 02/13/2025 which includes a watermark confirming both the laboratory representative who reissued the report and the date and time of the reissuance. The metadata associated with this Reissued Report also includes the lab representative's name, the date and time the laboratory reissued the report, and an explanation for the report reissuance. The Reissued Reports are attached to this submission.

In the event additional responsive information is received or discovered that would suggest this project should be incorporated into the ongoing data integrity review process associated with Operator's Rule 525.e. Voluntary Disclosure, Operator will update and/or amend the statements in this submission and provide any new or revised data or other information.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: William Schoff

Title: Environmental Consultant

Submit Date: 04/17/2025

Email: cvxform27@erm.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: Taylor Robinson

Date: 08/28/2025

Remediation Project Number: 22738

COA Type

Description

	Operator will visually inspect the footprint of the separator after removal. Operator will submit a minimum of one sample per separator for laboratory analysis pursuant to Rule 915. Operator will submit a sample from an area exhibiting the highest degree of impact, or in the absence of apparent impacts samples will be collected from below the inlet line(s) to the separator and from below the dump lines exiting the separator. Operator will provide photographs of the footprint of the separator.
	Upon removing the buried or partially buried vessel, Operator will field screen a minimum of four sidewall samples and one base sample in the excavation. Operator will collect the base sample from the center of the partially buried vessel footprint or areas of observed impact based on visual and olfactory inspection. Operator will collect samples and provide photographs from the following locations: a. Below the dump line or beneath other ancillary piping; b. Areas of observed impact based on visual and olfactory inspection; c. Within the root zone (less than three feet from ground surface).
	The provided soil sample map is extremely vague. Operator to provide an updated soil sample location map to include specific soil sample locations and field screenings at the tank battery, separator, PWV etc. Various data points included in the map such as "Highest Priority" and "High Priority" are irrelevant and to be removed. The spill release area is nondescript and does not properly encapsulate the area of surface disturbance.
	Operator will conduct a thorough review of all laboratory analytical reports and data and contact ECMC Regional Environmental Protection Specialist (EPS) to report findings. Additionally, Operator to provide language in the Operator comments section outlining the review that was performed and the results of the in depth review in the next Form 27-Supplemental.

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.

<u>Att Doc Num</u>	<u>Name</u>
404167616	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404167943	LABORATORY ANALYTICAL REPORT
404167945	LABORATORY ANALYTICAL REPORT
404167950	LABORATORY ANALYTICAL REPORT
404167954	LABORATORY ANALYTICAL REPORT
404167956	LABORATORY ANALYTICAL REPORT
404167959	LABORATORY ANALYTICAL REPORT
404167963	SOIL SAMPLE LOCATION MAP
404335046	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 9 Files

General Comments

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

Total: 0 comment(s)