

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: NOBLE ENERGY INC	Operator No: 100322	Phone Numbers
Address: 1099 18TH STREET SUITE 1500		Phone: (303) 597-6847
City: DENVER State: CO Zip: 80202		Mobile: ()
Contact Person: Phillip Porter	Email: RBUEUF27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 28208 Initial Form 27 Document #: 403347590

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: WELL	Facility ID: _____	API #: 123-17797	County Name: WELD
Facility Name: STATE 36-614	Latitude: 40.271320	Longitude: -104.501620	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 36	Twp: 4N	Range: 64W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 484711	API #: _____	County Name: WELD
Facility Name: State 36-614	Latitude: 40.271320	Longitude: -104.501620	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 36	Twp: 4N	Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Grassland

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

NA

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	NA	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.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the STATE 36-0614 wellhead cut and cap and flowline removal. The wellhead was cut and capped per ECMC rules. Approximately 1007' of flowline was removed. Seven (7) grab soil samples were collected at the wellhead excavation (5) and flowline directional changes (2). One (1) grab soil sample was collected at the flowline terminus at the separator during the facility decommissioning assessment and was reported under Rem. # 28142 (Form 27 Document Number 403572334). 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, EC, SAR, pH, and boron. Three (3) soil samples were also analyzed for ECMC Table 915-1 metals. 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):

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 supplemental site investigation, a grab groundwater sample 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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 45 -- Highest concentration of TPH (mg/kg) 868
 Number of soil samples exceeding 915-1 43 -- Highest concentration of SAR 1.45
 Was the areal and vertical extent of soil contamination delineated? Yes BTEX > 915-1 No
 Approximate areal extent (square feet) 1200 Vertical Extent > 915-1 (in feet) 8

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l) _____
 Was extent of groundwater contaminated delineated? No 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?
 Two (2) background samples were collected off-pad from similar lithographic soil near the former pH and ECMC Table 915-1 metals (sans hexavalent chromium) analysis (1) and near the flowline path for pH and arsenic analysis (1). Seven (7) background samples were collected from soil of native/similar lithologic material not impacted by oil and gas activity for analysis of EC, SAR, pH, boron, and ECMC Table 915-1 metals. Additional backgrounds will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare residual arsenic, barium, hexavalent chromium, and pH, as needed.

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?
 Additional samples will be collected from within the areal extent of the source excavation boundaries. Soil samples will be collected for analysis of full ECMC Table 915-1. Verification samples will be collected to confirm the presence of elevated Hexavalent Chromium in EX-SS-24@7' and EX-SS-25@7'. Additional backgrounds will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare EC, SAR, pH, boron, and ECMC Table 915-1 metals, as needed.

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.
 Residual petroleum hydrocarbon impacts identified at the site were removed through excavation. Soil samples were collected for analysis of TPH (C6-C36), ECMC Table 915-1 organics, arsenic, barium, hexavalent chromium, and pH per supplemental Form 27 Doc. # 403733949, included under related forms. 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

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 all current organic concentrations are in compliance with ECMC Table 915-1 regulatory limits. Additional backgrounds will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare EC, SAR, pH, boron, and ECMC Table 915-1 metals, as needed. Additional samples will be collected from within the areal extent of the source excavation boundaries. Soil samples will be collected for analysis of full ECMC Table 915-1. Verification samples will be collected to confirm the presence of elevated Hexavalent Chromium in EX-SS-24@7' and EX-SS-25@7'. NFA will be considered when all soil concentrations are in compliance with ECMC Table 915-1 standards.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 335

_____ 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 initial site investigation or remedial 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 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.

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.

Operator anticipates the remaining cost for this project to be: \$ 7000

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:

Volume of E&P Waste (solid) in cubic yards 355

E&P waste (solid) description soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: 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? 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. In the absence of organic impacts, the pH exceedance observed at the flowline directional change is not indicative of an E&P release. Based upon compliant laboratory analytical results of pH reruns and the levels of soil suitability impacts, the risk to vegetation is likely negligible. Based upon this and the use of inspections to monitor future growth, no additional assessment or remediation appears necessary flowline directional change.

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. 06/19/2023

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. 02/16/2023

Actual Spill or Release date, or date of discovery. 07/05/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/19/2023

Proposed site investigation commencement. 05/01/2023

Proposed completion of site investigation. 06/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/19/2023

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:

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.

OPERATOR COMMENT

This is a quarterly update. The Operator's Environmental Consultant on this Site has changed and is conducting a thorough review of the project.

Residual petroleum hydrocarbon impacts identified at the site were removed through excavation. Soil samples were collected to confirm the vertical and lateral extents of the impacts following source removal and analyzed per supplemental Form 27 Doc. # 403733949, included under related forms.

Results of the excavation/confirmation sampling indicate that all current organic concentrations are in compliance with ECMC Table 915-1 regulatory limits. However, additional backgrounds will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare EC, SAR, pH, boron, and ECMC Table 915-1 metals, as needed. Additional samples will be collected from within the areal extent of the source excavation boundaries. Soil samples will be collected for analysis of full ECMC Table 915-1 analytical suites. Verification samples will be collected to confirm the presence of elevated Hexavalent Chromium in EX-SS-24@7' and EX-SS-25@7'.

The results of the source excavation are attached to current submittal. Encrypted laboratory analytical data has been attached as separate attachments to current submittal. The ECMC will be notified on a supplemental Form 27 with the results of the supplemental site investigation. A 90-day reporting schedule will be adhered to moving forward

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

Signed: Justin Onwiler

Title: Environmental Consultant

Submit Date: 02/06/2025

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: ALEX FISCHER

Date: 07/28/2025

Remediation Project Number: 28208

COA Type**Description**

	Operator shall delineate the vertical and horizontal impacts of in-organics and metals.
	Barium Background average at 3' bgs: $76.3 \times 1.25 = 95.37$ Barium Background average 7-8' bgs: $75.95 \times 1.25 = 94.93$ NOTE: ECMC IS USING THE AVE OF THE BACKGROUND SAMPLES COLLECTED, NOT THE HIGHEST BACKGROUND DETECTED. The 181 mg/kg for barium appears to be an outlier and was not used in determining the average background for barium.
	Arsenic Background average at 3' bgs: $1.86 \times 1.25 = 2.33$ Arsenic Background average 7-8' bgs: $2.23 \times 1.25 = 2.79$ NOTE: ECMC IS USING THE AVE OF THE BACKGROUND SAMPLES COLLECTED, NOT THE HIGHEST BACKGROUND DETECTED.
3 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**

404079266	FORM 27-SUPPLEMENTAL-SUBMITTED
404085503	ANALYTICAL RESULTS
404085504	ANALYTICAL RESULTS
404085506	ANALYTICAL RESULTS
404085507	ANALYTICAL RESULTS
404085510	ANALYTICAL RESULTS
404085512	ANALYTICAL RESULTS
404085514	ANALYTICAL RESULTS
404085515	ANALYTICAL RESULTS
404085516	ANALYTICAL RESULTS
404085518	ANALYTICAL RESULTS

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Nearby water well indicates depth groundwater at 35' bgs. Receipt 0036336A; Permit 10717.	07/28/2025

Total: 1 comment(s)