

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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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 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: NOBLE ENERGY INC	Operator No: 100322	Phone Numbers
Address: 1099 18TH STREET SUITE 1500		Phone: (970) 730-7281
City: DENVER	State: CO	Zip: 80202
Contact Person: Dan Peterson	Email: RBUEUF27@chevron.com	Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33179 Initial Form 27 Document #: 403611773

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: 328566	API #: _____	County Name: WELD
Facility Name: SCHMIDT-64N66W 25NENE	Latitude: 40.288314	Longitude: -104.717534	
** correct Lat/Long if needed: Latitude: 40.288647		Longitude: -104.715928	
QtrQtr: NENE	Sec: 25	Twp: 4N	Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 487072	API #: _____	County Name: WELD
Facility Name: Schmidt G30-30D	Latitude: 40.288867	Longitude: -104.715954	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NENE	Sec: 25	Twp: 4N	Range: 66W 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? Yes _____

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

Freshwater Pond 0.11mi SE
Farming Structure 0.09/0.11mi NE, 0.12mi N
Residential Structure 0.09mi NE, 0.12mi NW, 0.25mi S

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- ☒ E&P Waste ☐ Other E&P Waste ☐ Non-E&P Waste
- ☒ Produced Water ☐ Workover Fluids
- ☒ Oil ☐ Tank Bottoms
- ☒ Condensate ☐ Pigging Waste
- ☐ Drilling Fluids ☐ Rig Wash
- ☐ Drill Cuttings ☐ Spent Filters
- ☐ Pit Bottoms
- ☐ Other (as described by EPA)

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	NA	Lab Analysis and Field Screening if encountered
Yes	SOILS	32' x 30' x 4.5' bgs	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 Schmidt G30-30D 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 compounds 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 field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, were submitted on a previous Form 27 (Document No. 403824463).

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 9

Number of soil samples exceeding 915-1 9

NA / ND

-- Highest concentration of TPH (mg/kg) 18

-- Highest concentration of SAR 2.92

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

BTEX > 915-1 No

Approximate areal extent (square feet) 992

Vertical Extent > 915-1 (in feet) 5

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?

Concurrently with the remedial excavation that is proposed in the Remedial Action Plan section of this Form 27, a supplemental site investigation (SSI) will be completed to collect additional background samples to determine if pH, arsenic, barium, and cadmium should be considered contaminants of concern and/or if the aforementioned constituents are attributed to native soil conditions at this site. The SSI will be completed in accordance with the proposed implementation schedule, and attached proposed SSI map, 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.

The 1,2,4-trimethylbenzene,1,3,5-trimethylbenzene,1-methylnaphthalene, 2-methylnaphthalene sources identified at PWV01-B@4.5' and PWV02-B@4.5' will be removed through a remedial excavation.

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.

The sources identified at PWV01-B@4.5' and PWV02-B@4.5' will be removed through a remedial excavation. Based on the contaminants of concern identified in the previous Form 27 submittal (Document No. 403824463), Noble will limit future soil sampling to BTEX, 1,2,4-TMB, 1,3,5-TMB, naphthalene, TPH, 1-methylnaphthalene, 2-methylnaphthalene, pH, arsenic, barium, and cadmium in accordance with the amended sampling plan. Concurrently with the remedial excavation, additional background samples will be collected to determine if pH, arsenic, barium, and cadmium should be considered contaminants of concern. The SSI will be completed in accordance with the proposed implementation schedule, and attached soil boring location map and the results of the SSI will be submitted on a subsequent Form 27.

If soil that is more heavily impacted with hydrocarbon compounds (based on PID readings, visual and/or olfactory indicators) is discovered during remedial excavation activities, a soil sample will be collected from that location and analyzed for full ECMC Table 915-1 contaminants of concern. If additional analytes are discovered from this new waste characterization sample in exceedance of ECMC Table 915-1 standards beyond those proposed in the above amended sampling plan, those compounds will be added to the sampling plan.

Soil Remediation Summary

☐ In Situ

☐ Ex Situ

Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

_____ Excavate and offsite disposal
_____ If Yes: Estimated Volume (Cubic Yards) _____
_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____
_____ 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.

REMEDATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

☒ Quarterly☐ Semi-Annually☐ Annually☒ Other

Supplemental Source Mass Removal Proposal and
Supplemental Site Investigation Proposal

☐ 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

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. 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:

REMEDATION COMPLETION REPORT

REMEDATION 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. 05/16/2024

Proposed date of completion of Reclamation. 09/23/2026

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. 06/13/2024

Actual Spill or Release date, or date of discovery. 06/13/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/16/2024

Proposed site investigation commencement. 09/23/2024

Proposed completion of site investigation. 03/23/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/23/2025

Proposed date of completion of Remediation. 03/23/2026

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 Schmidt G30-30D Tank Battery and necessity for remedial excavation and supplemental site investigation activities adjacent to the tank battery. The proposed remedial excavation and supplemental site investigation will be completed following the approval of this form, landowner negotiations, and crew availability.

OPERATOR COMMENT

This Form 27 is being submitted as a Third Quarter 2024 timeline update for the remedial excavation and supplemental site investigation planned for the Schmidt G30-30D tank battery. The remedial excavation and SSI will be completed in accordance with the Site Investigation Report section of this Form 27, and the attached proposed soil boring location map. The ECMC will be updated with the results of the remedial excavation and supplemental site investigation on a subsequent Form 27.

The sources identified at PWV01-B@4.5' and PWV02-B@4.5' will be removed through a remedial excavation. Based on the contaminants of concern identified in the previous Form 27 submittal (Document No. 403824463), Noble will limit future soil sampling to BTEX, 1,2,4-TMB, 1,3,5-TMB, naphthalene, TPH, 1-methylnaphthalene, 2-methylnaphthalene, pH, arsenic, barium, and cadmium in accordance with the amended sampling plan. Concurrently with the SSI, additional background samples will be collected to determine if pH, arsenic, barium, and cadmium should be considered contaminants of concern. 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.

In response to the Condition of Approval issued on the previous approved Form 27 (Document No. 403824463), the Form 42 associated with the Schmidt G30-30D tank battery for the on-location flowline abandonment has been attached in the Related Documents for this Form 27 Supplemental.

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

Signed: Allan Engelhardt

Title: Environmental Consultant

Submit Date: 09/23/2024

Email: chevroneform@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: Nick Cholas

Date: 11/04/2024

Remediation Project Number: 33179

COA Type

Description

	Operator will continue quarterly reporting until the site investigation is complete and Table 915-1 standards are met within the remediation area
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

403930337	FORM 27-SUPPLEMENTAL-SUBMITTED
403931032	SITE INVESTIGATION PLAN

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)