FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Document Number: 404430889
Receive Date:
Report taken by:

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 INFORMATON

Name of Operator: NOBLE ENERGY INC Operator No: 100322
Address: 1099 18TH STREET SUITE 1500
City: DENVER State: CO Zip: 80202
Contact Person: Lauren Hoff Email: RBUEUF27@chevron.com

Phone Numbers
Phone: (970) 304-5000
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 22142 Initial Form 27 Document #: 402966288

PURPOSE INFORMATION

- [ ] Rule 913.c.(1): Pit or Cuttings Trench closure.
- [X] Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- [X] 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.
- [X] 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: 450362 API #: County Name: WELD
Facility Name: UPRC 23-3H4 Latitude: 40.383631 Longitude: -104.517004
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSE Sec: 23 Twp: 5N Range: 64W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 485101 API #: County Name: WELD
Facility Name: CPC Ferguson Chewy UPRC TankBattery Latitude: 40.383675 Longitude: -104.517045
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSE Sec: 23 Twp: 5N Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications: SC

Most Sensitive Adjacent Land Use: Range Land

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

Residential 0.13mi N
Farm Structures 0.13mi N, 0.13mi NE
Riverine 0.2mi N, 0.22mi NE
Freshwater Pond 0.2/0.21mi N
Freshwater Emergent Wetlands 0.2/0.25mi N, 0.2mi NE
Riparian Herbaceous 0.2mi NE

SITE INVESTIGATION PLAN

TYPE OF WASTE:

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

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	NA	Lab analysis and Field Screening if encountered
Yes	SOILS	Refer to Figures and Tables	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 CPC FERGUSON CHEWY UPRC Tank Battery location.

In August 2023, during Tank Battery Decommissioning activities, 14 grab soil samples were collected from the produced water vessels excavation (10), beneath the production tanks (3), and at the flowline terminus at the separator (1). Soil samples were analyzed by a certified laboratory for ECMC Table 915-1 Organics and SSR constituents. All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods. A ECMC Table 915-1 Organic exceedances was identified beneath the produced water vessel excavation (WV-SS-08). ECMC was notified in Form 19 document number 403524099.Additionally ECMC Table 915-1 SSR exceedances were identified beneath two of the production tanks.

In October 2024, 14 soil boring were advanced surrounding the tank battery operational boundaries to depths between 5 – 20 ft bgs. A total of 56 soil samples were collected for select ECMC Table 915-1 constituents. Additional organic exceedances were not identified. Table 915-1 SSR exceedance for SAR was identified below the rootzone in one sample collected north of the production tanks (SB-05 @7.5-10'). All four soil samples analyzed for arsenic were above ECMC Table 915-1 limits. Borings installed to 20 ft bgs did not indicate the presence of groundwater.

In March 2025, 16 grab soil samples were collected for the full extent of ECMC Table 915-1 to confirm and delineate previous investigation results. Additional background soil samples were collected from to further compare applicable and metals and soil suitability parameters. ECMC Table 915-1 metals exceedance were identified under the three production tanks and SSR exceedances south of the produced water vessels excavation. Remaining samples were within ECMC Table 915-1 or site background values.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

Sample collected at SP-01 @4' and PV-04 @5' on 3/13/2025 were analyzed out of hold time for select organics constituents. SP-01 and will be re-collected for analysis of ECMC Table 915-1 parameters the sample collected at PV-04 will not be recollected as it will be removed through supplemental source mass removal.

Additional background samples will be collected in areas to reflect native conditions samples for comparison of metals and SSR parameters.

Operator will conduct SSMR excavation activities and will sample bottom and side wall samples until standards are met. Grab confirmation soil samples (a minimum of one floor sample and four sidewall samples) will be collected once the proposed excavation boundaries are achieved. Samples will be field screened and analyzed for all ECMC Table 915-1 compounds. All samples collected will be analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

Proposed Groundwater Sampling

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

If groundwater is encountered during Site investigation activities, a grab groundwater sample will be collected and analysed for full Table 915-1 constituents

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 occurred during Tank Battery decommissioning activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required. The ECMC Tank Battery / Partially Buried Vault Closure Checklist were utilized and filled out during the decommissioning process.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 16
Number of soil samples exceeeding 915-1: 16
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet): 600

NA / ND

ND — Highest concentration of TPH (mg/kg):
-- — Highest concentration of SAR: 7.77
BTEX > 915-1: No
Vertical Extent > 915-1 (in feet): 6

Groundwater

Number of groundwater samples collected: 0
Was extent of groundwater contaminated delineated? Yes
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?

[X] Were background samples collected as part of this site investigation?

In October 2024 background samples were collected at 5 locations for 915-1 SSR constituents and Arsenic. Background data collected by previous consultant was not utilized in the site background determination/compliance evaluation process.

In March 2025 a total of 6 background samples were collected from 3 locations at depths between 2 and 4 ft bgs for analysis of the Table 915-1 Metals and SSR. Background samples were collected sufficiently away from the investigation areas to reflect native conditions from similar depths and lithologic materials for comparison to soil sample results. Maximum background concentrations for compounds that exceed ECMC Table 915-1 in soil samples collected for closure assessment include: pH (8.37, 4ft bgs), Arsenic (2.89 mg/kg, 4 ft), and Barium (103 mg/kg, 4ft)

☐ 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?

Sample collected at SP-01 @4' and PV-04 @5' on 3/13/2025 were analyzed out of hold time for select organics constituents. SP-01 and will be re-collected for analysis of ECMC Table 915-1 parameters the sample collected at PV-04 will not be recollected as it will be removed through supplemental source mass removal.

Additional background samples will be collected in areas to reflect native conditions samples for comparison of metals and SSR parameters.

Operator will conduct SSMR excavation activities and will sample bottom and side wall samples until standards are met. Grab confirmation soil samples (a minimum of one floor sample and four sidewall samples) will be collected once the proposed excavation boundaries are achieved. Samples will be field screened and analyzed for all ECMC Table 915-1 compounds. All samples collected will be analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

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.

Operator will conduct supplemental source mass removal (SSMR) excavation activities and sample both the floor and sidewalls. Collected soil samples will be analyzed by a certified laboratory using approved ECMC laboratory analysis methods. Please refer to the attached proposed Remedial Action Plan.

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.

Laboratory analysis from samples collected on 24 August 2023 during tank battery decommissioning activities identified organic exceedances at sample location WV-SS-08 @ 5' that was not addressed during initial closure activities. These exceedances will be removed through a remedial excavation of approximately 10' x 10' x 10'. Laboratory analysis from samples collected 13 March 2025 indicated 915-1 exceedances of one or more metals above site background at 1' bgs underneath former production tanks (PV-01, PV-02, and PV-03). These exceedances will be removed through a remedial excavation of approximately 40' x 10' x 3'. The proposed excavation plan is depicted on the attached figure. Excavated soils will be field screened with a PID and visual/olfactory senses to determine the extent of the excavation boundary. Post-excavation confirmatory samples will be collected from the excavation, one every 40 linear feet for sidewall, and one every 500 sq feet of floor (a minimum of five grab soil samples). A grab groundwater sample will be collected if encountered. All samples collected will be analyzed for ECMC Table 915-1 constituents. The analytical results of the remedial excavation will be submitted on a subsequent Form 27.

NFA will be considered when soil and/or groundwater (if encountered) concentrations are in compliance with ECMC Table 915-1 standards. SSMR activities at the site are currently being scheduled.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ 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.

Groundwater was not encountered during Initial closure or supplemental site investigation activities.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

[X] 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

[X] Other Quarterly Update/ Remedial Action Plan/ Site Investigation Plan/ SSMR

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? 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.

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. 01/31/2026

Proposed date of completion of Reclamation. 10/31/2029

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. 01/05/2022

Actual Spill or Release date, or date of discovery. 09/07/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/24/2023

Proposed site investigation commencement. 03/13/2025

Proposed completion of site investigation. 02/01/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 02/01/2026

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.

[X] Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

Site investigation dates updated to account for additional site investigation is required. Remediation investigation date updated to account for SSMR activities. The proposed remedial implementation date is estimated to commence and be completed between December 2025 and April 2026.Operator will notify ECMC on a subsequent form submittal if the proposed excavation activities are delayed from the proposed schedule and an updated timeline.

OPERATOR COMMENT

This is a replacement SF27, Q42025 update, submittal of March 2025 supplemental site investigation data, and proposes additional supplemental site investigation and SSMR for the CPC FERGUSON CHEWY UPRC Tank Battery location.

The previous SF27s document number 404298047 was denied by ECMC on 10/27/2025 stating "ECMC has denied this form without technical review as Operator has provided no analytical or site investigation data showing progress of remediation of impacts documented at this location." Operator has attached most recent site investigation data to this replacement SF27 and the associated site investigation and remedial action plans. The proposed remedial implementation date is estimated to commence and be completed between December 2025 and April 2026. Operator will notify ECMC on a subsequent form submittal if the proposed excavation activities are delayed from the proposed schedule and an updated timeline.

In August 2023, during Tank Battery Decommissioning activities, 14 grab soil soil samples were collected for for ECMC Table 915-1 Organics and SSR constituents. A organic exceedance was identified beneath the produced water vessel excavation (WV-SS-08). ECMC was notified in Form 19 document number 403524099. Additionally ECMC Table 915-1 SSR exceedances were identified beneath two of the production tanks.

In October 2024, 14 soil boring were advanced surrounding the tank battery operational boundaries to depths between 5 – 20 ft bgs. Additional organic exceedances were not identified. Borings installed to 20 ft bgs did not indicate the presence of groundwater.

In March 2025, 16 grab soil samples were collected for the full extent of ECMC Table 915-1 to confirm and delineate previous investigation results. Additional background soil samples were collected from to further compare applicable and metals and soil suitability parameters. ECMC Table 915-1 metals exceedance were identified at 1 ft bgs under the three production tanks (PV-01 through PV-03) and SSR exceedances were identified at 5 ft bgs south of the produced water vessels excavation (PV-06). Remaining samples were within ECMC Table 915-1 or site background values.

Operator will conduct SSMR excavation activities to address organic exceedance identified at WV-SS-08 and to address metals exceedances identified underneath production tanks. Post-excavation confirmatory samples will be collected from the excavation, one every 40 linear feet for sidewall, and one every 500 sq feet of floor (a minimum of five grab soil samples) until standards are met. The proposed excavation extents are depicted on the attached remedial action plan. Grab confirmation soil samples will be collected once the proposed excavation boundaries are achieved. Samples will be field screened and analyzed for all ECMC Table 915-1 compounds.

Sample collected at SP-01 @4' and PV-04 @5' on 3/13/2025 were analyzed out of hold time for select organics constituents. SP-01 and will be re-collected for analysis of ECMC Table 915-1 parameters. The sample collected at PV-04 will not be recollected as it will be removed through supplemental source mass removal.

Additional background samples will be collected sufficiently away from the investigation areas to reflect native conditions samples will be collected for comparison of metals and SSR parameters to soil sample results. Please refer to attached Site Investigation Plan.

Pursuant to Rule 913.e, quarterly reporting will continue for the location until data indicates no further action is warranted.

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

Signed: Michael LeFrancois Title: Environmental Consultant

Submit Date: 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: Date:

Remediation Project Number: 22142

COA Type	Description

0 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
404441985	SITE INVESTIGATION REPORT
404441987	ANALYTICAL RESULTS
404455899	REMEDIAL ACTION PLAN
404465119	SITE INVESTIGATION PLAN

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)