FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Document Number: 404145165
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: Jason Davidson Email: jason.davison@chevron.com

Phone Numbers
Phone: (970) 313-5582
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 32833 Initial Form 27 Document #: 403606536

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.
- [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: WELL Facility ID: API #: 123-27394 County Name: WELD
Facility Name: Bruntz G 16-23 Latitude: 40.308760 Longitude: -104.663730
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SWSE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487465 API #: County Name: WELD
Facility Name: Bruntz G16-23 Latitude: 40.308760 Longitude: -104.663704
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487468 API #: County Name: WELD

Facility Name: Bruntz G16-23 Latitude: 40.308804 Longitude: -104.663244

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487470 API #: County Name: WELD

Facility Name: Bruntz G16-23 Latitude: 40.308914 Longitude: -104.662884

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487471 API #: County Name: WELD

Facility Name: Bruntz G16-23 Latitude: 40.309221 Longitude: -104.662732

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487476 API #: County Name: WELD

Facility Name: Bruntz G16-23 Latitude: 40.308760 Longitude: -104.663704

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W 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

Riverine 0.07/0.18mi SW
Freshwater Emergent Wetland 0.09/0.10/0.21mi NW, 0.12mi NE
Apparent Pond 0.07mi W
Residential 0.06mi NE
Farm Structure 0.10/0.20/0.24mi 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 Tables and Figures	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.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the BRUNTZ G16-23 wellhead cut and cap and flowline removal. Approximately 1056' of flowline was fully removed. The wellhead was cut and capped per ECMC rules. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were taken along the flowline at any points of material change and/or hammer unions, directional changes, as well as at the bell holes on either side of a waterway.

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):

A grab soil sample was collected at the base of the excavation or the area showing the highest degree of impact during field screening activities at the wellhead excavation. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were taken along the flowline at any points of material change and/or hammer unions, directional changes, as well as at the bell holes on either side of a waterway. 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

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

If groundwater is encountered during the site investigation and/or remedial excavations a grab groundwater sample will be collected and analyzed for all organic compounds per ECMC Table 915-1; this sample analysis includes, but is not limited to BTEX, naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260, chloride and sulfate anions by EPA Method 300.0, and total dissolved solids (TDS) by Method SM 2540C.

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 of the wellhead and flowline areas occurred during decommissioning 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, is attached to ECMC Document # 403848708.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 25

Number of soil samples exceeeding 915-1: 8

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

Approximate areal extent (square feet): 800

NA / ND

ND — Highest concentration of TPH (mg/kg):

-- — Highest concentration of SAR: 17.7

BTEX > 915-1: No

Vertical Extent > 915-1 (in feet): 4

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?

On June 24, 2024 two background soil samples were collected from one discrete location near the flowline (BKG01) and analyzed for pH, EC, SAR, boron and metals in soil per ECMC Table 915-1. Background soil samples were collected from the depths of one feet and two feet below ground surface (ft bgs). Arsenic and selenium concentrations in background samples were observed to be above ECMC Table 915-1 standards.

On January 6, 2025, sixteen background soil samples were collected from multiple locations near the flowline (BKG02-BKG06) and analyzed for pH, EC, SAR, boron and metals in soil per ECMC Table 915-1. Background soil samples were collected from the depths ranging from 0-1 to 3-4 feet bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Background soil analytical results indicated that pH, SAR, arsenic, and barium were in exceedance of the applicable regulatory standards in native soil on site.

[ ] Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards):

Volume of liquid waste (barrels):

[X] Is further site investigation required?

Between January 9, 2025, and January 10, 2025, a total of five remedial excavations were completed along the former Bruntz G16-23 flowline to remove impacted material discovered on site during decommissioning. Based on the remedial excavation analytical results, organic exceedances remain in situ at six soil sample locations. Consequently, additional excavation activities were initiated on March 26, and 27, 2025 to remove the hydrocarbon impacts. Final analytical results are still pending. Upon receipt of final analytical results, a summary of supplemental source mass removal activities will be provided via Supplemental Form 27.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

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.

Between January 9, 2025 and January 10, 2025, approximately 110 cubic yards of impacted material were removed from the excavation and transported to the Waste Management Buffalo Ridge Facility for disposal under Noble waste manifests.

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.

Between January 9, 2025 and January 10, 2025, a total of twenty-five (25) soil samples were collected from the base and sidewalls of five remedial excavations along the former flowline at depths ranging between approximately 1 ft to 4 ft bgs and submitted for laboratory analysis of the full Table 915-1 analytical suite.

Analytical results for samples collected form the final excavation extents indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations aside from SS01-A, SS02-A, SS05-B, SS05-D, SS01-E, and SS05-E. In addition, EC and/or SAR concentrations were in exceedance of the ECMC standard and background concentrations in 4 soil sample locations. The remaining constituent concentrations were in compliance with ECMC standards or within background concentrations for samples collected from the final excavation extents.

Based on the results, additional excavation activities were initiated on March 26, and 27, 2025 to remove the hydrocarbon impacts remaining in-situ. Final analytical results are still pending. Upon receipt of final analytical results, a summary of supplemental source mass removal activities will be provided via Supplemental Form 27.

Soil Remediation Summary

☐ **In Situ**

- ____ Bioremediation (or enhanced bioremediation)
- ____ Chemical oxidation
- ____ Air sparge / Soil vapor extraction
- ____ Natural Attenuation
- ____ Other ____

☒ **Ex Situ**

- Yes Excavate and offsite disposal
  - If Yes: Estimated Volume (Cubic Yards) 110
  - 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 observed during decommissioning or excavation 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 Supplemental Source Mass Removal Summary, 2Q25 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? 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 110

E&P waste (solid) description hydrocarbon impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Waste Management Buffalo Ridge Landfill

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?

[X] 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. 05/14/2024

Proposed date of completion of Reclamation. 07/13/2026

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. 07/09/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/24/2024

Proposed site investigation commencement. 03/26/2025

Proposed completion of site investigation. 09/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/09/2025

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.

[X] 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 completion of remedial excavation activities along the flowline, the initiation of additional supplemental source mass removal activities, and the necessity for wellhead cut and cap re-sampling activities. Re-sampling will be conducted and analytical results will be provided in a subsequent Supplemental Form 27 upon completion.

OPERATOR COMMENT

This Supplemental Form 27 is being submitted to summarize the remedial excavation activities at the Bruntz G16-23 flowline location.

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 report from subsequent unauthorized modification by anyone outside the lab, which resulted in the lab reissuing the original report with additional protections (Reissued Report). The Reissued Report was received directly from the lab on March 28, 2025, which includes the application of a Digital ID/Verified Certification (lock) to support 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 Report is attached to this submission.

Between January 9, 2025, and January 10, 2025, a total of five remedial excavations were completed along the former Bruntz G16-23 flowline to remove impacted material discovered on site during decommissioning. A total of twenty-five (25) soil samples were collected from the base and sidewalls of five remedial excavations along the former flowline at depths ranging between approximately 1 ft to 4 ft bgs and submitted for laboratory analysis of the full Table 915-1 analytical suite.

On January 6, 2025, sixteen background soil samples were collected from multiple locations near the flowline (BKG02-BKG06) and analyzed for pH, EC, SAR, boron and metals in soil per ECMC Table 915-1. Background soil samples were collected from the depths ranging from 0-1 to 3-4 feet bgs and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Background soil analytical results indicated that pH, SAR, arsenic, and barium were in exceedance of the applicable regulatory standards in native soil on site.

Analytical results for samples collected form the final excavation extents indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations aside from SS01-A, SS02-A, SS05-B, SS05-D, SS01-E, and SS05-E. In addition, EC and/or SAR concentrations were in exceedance of the ECMC standard and background concentrations in four soil sample locations. The remaining constituent concentrations were in compliance with ECMC standards or within background concentrations for samples collected from the final excavation extents.

Based on the remedial excavation analytical results, organic exceedances remain in situ at six soil sample locations. Consequently, additional excavation activities were initiated on March 26, and 27, 2025 to remove the hydrocarbon impacts. Final analytical results are still pending. Upon receipt of final analytical results, a summary of supplemental source mass removal activities will be provided via Supplemental Form 27.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

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.

Supplemental Form 27s will be prepared and submitted on a quarterly schedule to provide updates and progress of the remediation until closure criteria has been achieved.

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

Signed: Jesse Marcus Title: Environmental Consultant

Submit Date: Email: tas-chevron-2@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: Date:

Remediation Project Number: 32833

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
404150364	LABORATORY ANALYTICAL REPORT
404150366	LABORATORY ANALYTICAL REPORT
404150368	LABORATORY ANALYTICAL REPORT

404150371	REMEDIATION PROGRESS REPORT

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)