

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404291971

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 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>(970) 278-6934</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>()</u>
Contact Person: <u>Erica Zuniga</u>	Email: <u>ericazuniga@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 31220 Initial Form 27 Document #: 403508202

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

No Multiple Facilities

Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>123-15698</u>	County Name: <u>WELD</u>
Facility Name: <u>HSR-ALBERSTEIN 16-23</u>	Latitude: <u>40.205747</u>	Longitude: <u>-104.624006</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>23</u>	Twtp: <u>3N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SW Most Sensitive Adjacent Land Use Grassland

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 0.19mi W
Residential 0.2mi SW, 0.21mi S
Farm Structure 0.24mi SE
Commercial 0.19mi/ 0.21mi/ 0.21mi/ 0.22mi SE

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	Refer to Tables and Figures	Lab Analysis and Field Screening if Encountered
No	SOILS	Refer to Tables and Figures	Lab Analysis and Field Screening if Encountered

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 HSR-ALBERSTEIN 16-23 wellhead cut and cap and flowline removal. Approximately 600' of flowline was removed as reported in Form 44 Document Number 403770294.

On 13 December 2023, one (1) grab soil sample was collected at the former wellhead (WH-FS-01) and were analyzed by a certified laboratory for organic compounds in soil per ECMC Table 915-1, EC, SAR, pH, metals and boron. Additionally, soil samples were field screened in the N-E-S-W sides of the wellhead. One background sample was also collected in the vicinity of the former wellhead and analyzed by a certified laboratory for Table 915-1 metals.

On 2 February 2024, four (4) grab soil samples were collected along the former flowline (FL-SS-01, FL-SS-06, FL-SS-07, FL-SS-08) and were analyzed by a certified laboratory for organics compounds in soil per ECMC Table 915-1, EC, SAR, pH, metals and boron. One background sample was also collected in the vicinity of the former flowline and analyzed by a certified laboratory for Table 915-1 metals.

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):

Operator is in the process of coordinating confirmation delineation sampling at the HSR-ALBERSTEIN 16-23 wellhead to assess pH exceedance reported during initial wellhead closure activities. One (1) grab soil sample will be collected at WH-FS-01 at 6 feet below ground surface (ft bgs) and four delineation borings will be advanced in the N-E-S-W directions of the former wellhead, with soil samples collected at 4-, 6- and 8 ft bgs. Operator will also conduct confirmation sampling at the former flowline by collecting five (5) grab soil samples. Proposed soil sampling is shown on the attached map. Soil samples will be analyzed by a certified laboratory for the full Table 915-1 compound list. Three (3) background soil samples will be obtained from locations sufficiently away from the impacted areas to reflect conditions not impacted by oil and gas activity, and from similar depths and lithologic materials and analyzed by a certified laboratory for ECMC Table 915-1 SSR and metals.

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 sample will be collected and analyzed for all organic 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

Number of soil samples collected 5
Number of soil samples exceeding 915-1 1
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 0

NA / ND

ND Highest concentration of TPH (mg/kg) _____
-- Highest concentration of SAR 2.02
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 0

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
0 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 from similar lithographic soil near the wellhead (1) and near the flowline path (1) for EC, SAR, pH, boron, and ECMC Table 915-1 metals analysis. Arsenic was measured exceeding Table 915-1 criteria for both background samples, at 1.22 milligrams per kilogram (mg/kg) in the vicinity of the former wellhead and 2.10 mg/kg in the vicinity of the former flowline, at 2 and 3 feet below ground surface (bgs), respectively.

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?

Operator is in the process of coordinating confirmation delineation sampling at the HSR-ALBERSTEIN 16-23 wellhead to assess pH exceedance reported during initial wellhead closure activities. One (1) grab soil sample will be collected at WH-FS-01 at 6 feet below ground surface (ft bgs) and four delineation borings will be advanced in the N-E-S-W directions of the former wellhead, with soil samples collected at 4-, 6- and 8 ft bgs. Operator will also conduct confirmation sampling at the former flowline by collecting five (5) grab soil samples. Proposed soil sampling is shown on the attached map. Soil samples will be analyzed by a certified laboratory for the full Table 915-1 compound list. Three (3) background soil samples will be obtained from locations sufficiently away from the impacted areas to reflect conditions not impacted by oil and gas activity, and from similar depths and lithologic materials and analyzed by a certified laboratory for ECMC Table 915-1 SSR and metals.

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.

No source was generated.

REMEDICATION 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.

NA

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.

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 (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 downwards 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. 10/31/2024

Proposed date of completion of Reclamation. 12/13/2027

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. 08/10/2023

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/13/2023

Proposed site investigation commencement. 09/20/2023

Proposed completion of site investigation. 04/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/13/2023

Proposed date of completion of Remediation. 12/31/2026

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:

Implementation schedule updated for additional site investigation activities, pending landowner consultation.

OPERATOR COMMENT

This 3Q2025 quarterly update for the SF27 for HSR-ALBERSTEIN 16-23 (REM 31220) is being submitted to serve as a timeline update.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the HSR-ALBERSTEIN 16-23 wellhead cut and cap and flowline removal. Approximately 600' of flowline was removed as reported in Form 44 Document Number 403770294. On 13 December 2023, one (1) grab soil sample was collected at the former wellhead (WH-FS-01) and were analyzed by a certified laboratory for organic compounds in soil per ECMC Table 915-1, EC, SAR, pH, metals and boron. Additionally, soil samples were field screened in the N-E-S-W sides of the wellhead. One background sample was also collected in the vicinity of the former wellhead and analyzed by a certified laboratory for Table 915-1 metals. On 2 February 2024, four (4) grab soil samples were collected along the former flowline (FL-SS-01, FL-SS-06, FL-SS-07, FL-SS-08) and were analyzed by a certified laboratory for organics compounds in soil per ECMC Table 915-1, EC, SAR, pH, metals and boron. One background sample was also collected in the vicinity of the former flowline and analyzed by a certified laboratory for Table 915-1 metals.

Confirmation and delineation soil sampling will be conducted one (1) soil sample at the former wellhead, four (4) soil samples in the N-E-S-W directions, and five (5) soil samples along the former flowline. All soil samples will be analyzed by a certified laboratory for ECMC Table 915-1 soil compounds using approved ECMC laboratory analysis methods. Three (3) background soil samples will also be collected and analyzed by a certified laboratory for ECMC Table 915-1 SSR and metals. Proposed sample locations are depicted on the attached figure.

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: Justin Onwiler _____

Title: Consultant _____

Submit Date: _____

Email: justin.onwiler@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: 31220

COA Type

Description

0 COA	
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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

404292120	SITE INVESTIGATION PLAN
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Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)