

**State of Colorado**  
**Energy & Carbon Management Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:  
404061805  
Receive Date:  
01/23/2025

Report taken by:  
Alexander Ahmadian

**Site Investigation and Remediation Workplan (Initial 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: <u>NOBLE ENERGY INC</u>	Operator No: <u>100322</u>	<b>Phone Numbers</b>
Address: <u>1099 18TH STREET SUITE 1500</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Dan Peterson</u>	Email: <u>danpeterson@chevron.com</u>	Phone: <u>(970) 730-7281</u>
		Mobile: <u>( )</u>

**PROJECT, PURPOSE & SITE INFORMATION**

**PROJECT INFORMATION**

Remediation Project #: 38829 Initial Form 27 Document #: 404061805

**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>SPILL OR RELEASE</u>	Facility ID: <u>488563</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Oscar SW Facility</u>	Latitude: <u>40.152059</u>	Longitude: <u>-104.542241</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>10</u>	Twp: <u>2N</u>	Range: <u>64W</u>
Meridian: <u>6</u>	Sensitive Area? <u>Yes</u>		

**SITE CONDITIONS**

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Rangeland  
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**

1410' west to city limits of Keenesburg.

No other potential receptors are located within 1/4 mile of the Site.  
Above distances are approximations.

**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
No	GROUNDWATER	not encountered	not encountered
Yes	SOILS	15'x15'x1'	Laboratory data

**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 reportable release occurred on 11/17/24 at the Oscar SW Facility. Approximately 5.61 BBL of crude oil/produced water mix was released outside of containment from a failed Kimray valve on a bulk separator. The release is controlled and a hydrovac was used to excavate impacted soil - all standing fluid has been removed and properly disposed of as of 11/17/2024. A site investigation was conducted and a waste characterization sample was collected on 11/18/2024.

**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 ):

Eleven soil samples have been collected in the spill area. All soil samples were submitted to Summit Scientific Inc. in Golden, Colorado and Origins Laboratory in Denver, Colorado and analyzed for ECMC Table 915-1 constituents. Two confirmation samples are still pending analytical results (FS-02(2) and FS-04(2)). Laboratory results for all other confirmation samples indicated that all petroleum and inorganic constituents were less than their respective Table 915-1 standards or background sample values except for Barium and Selenium. The data from these samples is summarized on Tables 1 to 4. The sample locations in the spill area are shown on the figure.

**Proposed Groundwater Sampling**

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

[Empty text box for groundwater sampling details]

**Proposed Surface Water Sampling**

Will surface water samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

[Empty text box for surface water sampling details]

**Additional Investigative Actions**

Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

[Empty text box for additional investigative actions]

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 20

Number of soil samples exceeding 915-1 18

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

Approximate areal extent (square feet) 225

### NA / ND

-- Highest concentration of TPH (mg/kg) 28000

-- Highest concentration of SAR 1.89

BTEX > 915-1 Yes

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

\_\_\_\_\_ 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?

Nine background soil samples were collected (see soil samples beginning in "BG") from outside of the area disturbed by Oil and Gas operations, of comparable, nearby, non-impacted, native soil as well as from imported, non-impacted pad material comparable to material where the release occurred. Four background samples were collected on 7/22/24 to address a spill at a site immediately adjacent to the Oscar spill. The background soil laboratory data is summarized in Tables 3 and 4. Analytical results for background samples show arsenic and pH values greater than samples collected in the release area. Therefore indicating that As and pH are naturally occurring in the native soil and non-impacted imported fill material thus eliminating such constituents as contaminants of concern.

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?

All Table 915-1 constituents have been adequately remediated except for barium and selenium. Operator is currently evaluating remedial options for those constituents.

## REMEDIAL ACTION PLAN

### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

A remedial excavation via hydrovac equipment was conducted. Impacted soil has been transported offsite for disposal.

### 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.

A remedial excavation via hydrovac equipment was conducted and approximately 10 cubic yards of impacted soil has been transported offsite for disposal. All Table 915-1 constituents have been adequately remediated except for barium and selenium. Operator is currently evaluating remedial options for those constituents.

### Soil Remediation Summary

In Situ

Ex Situ

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

- Yes \_\_\_\_\_ Excavate and offsite disposal
- \_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 10
- \_\_\_\_\_ Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_
- No \_\_\_\_\_ 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.

# 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 Supplemental Site Investigation

## 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: \$ 5000

## 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 10

E&P waste (solid) description Petroleum impacted soil

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-ECMC Disposal Facility: Republic Services Tower Road 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: \_\_\_\_\_

# 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 conducted in accordance with ECMC 1004 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. \_\_\_\_\_

Proposed date of completion of Reclamation. \_\_\_\_\_

## 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. 11/17/2024

Actual Spill or Release date, or date of discovery. 11/17/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/18/2024

Proposed site investigation commencement. 11/18/2024

Proposed completion of site investigation. 06/30/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/22/2024

Proposed date of completion of Remediation. 06/30/2025

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:

\_\_\_\_\_

**OPERATOR COMMENT**

This Initial Form 27 was prepared to summarize initial release response, source mass removal and confirmation soil sampling activities conducted at the Oscar Separator release site since the release occurred on 11/17/2024.

PDC is requesting a Remediation Project Number be assigned. Spill # 488563 will proceed under the requested Remediation Project Number upon receipt.

A remedial excavation via hydrovac equipment was conducted and approximately 10 cubic yards of impacted soil has been transported offsite for disposal. All Table 915-1 constituents have been adequately remediated except for barium and selenium. Operator is currently evaluating remedial options for those constituents.

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

Signed: Michelle Bartoszek

Title: HSE Advisor

Submit Date: 01/23/2025

Email: michelle.bartoszek@chevron.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: Alexander Ahmadian

Date: 02/10/2025

Remediation Project Number: 38829

**COA Type****Description**

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**

404061805	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
404061912	ANALYTICAL RESULTS
404061920	ANALYTICAL RESULTS
404061921	ANALYTICAL RESULTS
404064396	ANALYTICAL RESULTS
404064467	ANALYTICAL RESULTS
404067142	REMEDATION PROGRESS REPORT
404087867	FORM 27-INITIAL-SUBMITTED

Total Attach: 8 Files

**General Comments****User Group****Comment****Comment Date**

Environmental	All ongoing/unaddressed comments/COAs from previous Forms remain applicable.	02/10/2025
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Total: 1 comment(s)