

State of Colorado Oil and Gas Conservation Commission

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Document Number:

401635809

Receive Date:

05/10/2018

Report taken by:

BOB CHESSON

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 COGCC 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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: NOBLE ENERGY INC	Operator No: 100322	Phone Numbers Phone: (970) 3045329 Mobile: ()
Address: 1001 NOBLE ENERGY WAY		
City: HOUSTON State: TX Zip: 77070		
Contact Person: Jacob Evans	Email: jacob.evans@nblenergy.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 11352 Initial Form 27 Document #: 401635809

PURPOSE INFORMATION

- | | |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 901.e. Sensitive Area Determination | <input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water |
| <input checked="" type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure | <input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b. |
| <input type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation | <input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project |
| <input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste | <input type="checkbox"/> Rule 906.c.: Director request |
| <input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure | <input type="checkbox"/> Other |

SITE INFORMATION

Y Multiple Facilities (in accordance with Rule 909.c.)

Facility Type: LOCATION	Facility ID: 310082	API #:	County Name: WELD
Facility Name: FRAZIER 33-15	Latitude: 40.271450	Longitude: -104.663520	
** correct Lat/Long if needed: Latitude: 40.269638		Longitude: -104.659379	
QtrQtr: SENE Sec: 33 Twp: 4N Range: 65W Meridian: 6	Sensitive Area? Yes		
Facility Type: LOCATION	Facility ID: 319127	API #:	County Name: WELD
Facility Name: SALLEE-64N65W 12NESE	Latitude: 40.324930	Longitude: -104.604440	
** correct Lat/Long if needed: Latitude: 40.319869		Longitude: -104.602367	
QtrQtr: NESE Sec: 12 Twp: 4N Range: 65W Meridian: 6	Sensitive Area? Yes		
Facility Type: LOCATION	Facility ID: 323282	API #:	County Name: WELD
Facility Name: BIGFOOT-64N65W 12NWSE	Latitude: 40.325070	Longitude: -104.608520	
** correct Lat/Long if needed: Latitude: 40.319618		Longitude: -104.302380	
QtrQtr: NWSE Sec: 12 Twp: 4N Range: 65W Meridian: 6	Sensitive Area? Yes		

Facility Type: LOCATION		Facility ID: 326714		API #:		County Name: WELD	
Facility Name: STATE R G-64N65W 36NWNW				Latitude: 40.274160		Longitude: -104.618740	
** correct Lat/Long if needed: Latitude: 40.268766				Longitude: -104.617305			
QtrQtr: NWNW	Sec: 36	Twp: 4N	Range: 65W	Meridian: 6	Sensitive Area? Yes		

Facility Type: LOCATION		Facility ID: 332373		API #:		County Name: WELD	
Facility Name: OTIS STATE G-64N65W 36NWNW				Latitude: 40.273320		Longitude: -104.616860	
** correct Lat/Long if needed: Latitude: 40.268721				Longitude: -104.617311			
QtrQtr: NWNW	Sec: 36	Twp: 4N	Range: 65W	Meridian: 6	Sensitive Area? Yes		

Facility Type: LOCATION		Facility ID: 336681		API #:		County Name: WELD	
Facility Name: HSR-KEMPER-64N65W 34NWSE				Latitude: 40.265800		Longitude: -104.645750	
** correct Lat/Long if needed: Latitude: 40.268761				Longitude: -104.649292			
QtrQtr: NWSE	Sec: 34	Twp: 4N	Range: 65W	Meridian: 6	Sensitive Area? Yes		

SITE CONDITIONS

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

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

Various

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	SOILS	NA	Laboratory Analytical

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

Produced water vessel sampling per COGCC Rule 905b.

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):

Soil samples were collected and analyzed for TPH-DRO, TPH-GRO, BTEX, Naphthalene, SAR, EC, and pH. Two soil samples were collected from each location; one at the base and one sidewall between 0'-3' bgs.

Proposed Groundwater Sampling

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

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 12

Number of soil samples exceeding 910-1 0

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 5.32

BTEX > 910-1 No

Vertical Extent > 910-1 (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 910-1

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 910-1

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?

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

There was no E&P Waste generated

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 March 13, 2018 and March 27, 2018 six locations were sampled to investigate for potential impacts subsequent to a produced water vessel removal, in accordance with COGCC Rule 905b. All samples collected were below COGCC Table 910-1 standards.

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 COGCC 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

Frequency: ☐ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other _____

Report Type: ☐ Groundwater Monitoring ☐ Land Treatment Progress Report ☐ O&M Report

☒ Other Produced water vessel removal _____

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 _____

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: _____

Volume of E&P Waste (liquid) in barrels _____

E&P waste (liquid) description _____

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC 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 in accordance with COGCC 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 approve the seed mix? _____

If NO, does the seed mix comply with local soil conservation district recommendations? _____

IMPLEMENTATION SCHEDULE

PRIOR DATES

Date of Surface Owner notification/consultation, if required. _____

Actual Spill or Release date, if known. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/13/2018

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. 03/27/2018

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. 03/13/2018

Date of completion of Reclamation. 03/27/2018

OPERATOR COMMENT

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

Signed: ` Jacob Evans

Title: Environmental Coordinator

Submit Date: ` 05/10/2018

Email: jacob.evans@nblenergy.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: BOB CHESSON

Date: 05/14/2018

Remediation Project Number: 11352

COA Type**Description**

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Attachment Check 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**

401635809	FORM 27-INITIAL-SUBMITTED
401636149	ANALYTICAL RESULTS
401636161	ANALYTICAL RESULTS
401636162	ANALYTICAL RESULTS
401636163	ANALYTICAL RESULTS
401636166	ANALYTICAL RESULTS
401636168	ANALYTICAL RESULTS

Total Attach: 7 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)