

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
402262833

Receive Date:
01/08/2020

Report taken by:
Steven Arauza

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 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 INFORMATON

Name of Operator: <u>CHEVRON USA INC</u>	Operator No: <u>16700</u>	Phone Numbers
Address: <u>100 CHEVRON ROAD</u>		
City: <u>RANGELY</u>	State: <u>CO</u>	Zip: <u>81648</u>
Contact Person: <u>Adriane Gifford</u>	Email: <u>agifford@chevron.com</u>	
		Phone: <u>(832) 854-5620</u>
		Mobile: <u>(832) 270-3436</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 14816 Initial Form 27 Document #: 402191055

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 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 checked="" type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input type="checkbox"/> Other _____

SITE INFORMATION N Multiple Facilites (in accordance with Rule 909.c.)

Facility Type: <u>CENTRALIZED EP WASTE MGMT FAC</u>	Facility ID: <u>149002</u>	API #: _____	County Name: <u>RIO BLANCO</u>
Facility Name: <u>WILSON CREEK LANDFARM</u>	Latitude: <u>40.191414</u>	Longitude: <u>-107.907919</u>	
QtrQtr: <u>NENW</u>		Sec: <u>35</u>	Twp: <u>3N</u>
Range: <u>94W</u>		Meridian: <u>6</u>	Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use Recreational

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? Yes

Other Potential Receptors within 1/4 mile

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 type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <input checked="" type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input 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
Yes	SOILS	Confined to Landfarm Cell 1	Permitted E&P Waste Facility

INITIAL ACTION SUMMARY

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

Semi-annual monitoring and sampling, soil tilling, and pH adjustment of Centralized Exploration and Production (E&P) Waste Management Facility (Cell 1). Analytical data collected from Cell 1, for compliance with permitting, indicated arsenic concentrations in soil are above Colorado Department of Public Health and Environment (CDPHE) state background levels of 11 milligrams per kilogram (mg/kg) and treatment through landfarming technology is ineffective for this constituent. Due to the high arsenic concentrations in Cell 1, Chevron decided to remediate Cell 1 through excavation and offsite disposal. Excavation of Cell 1 to remove soils above the COGCC Table 910-1 completed in October 2019. It is anticipated that final topography and revegetation will occur following future Cell 2 closure activities.

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):

Following soil excavation and liner removal, up two confirmation soil samples will be collected as follows: One sample will be collected beneath the liner's low point to verify no leakage of the Exploration and Production (E&P) waste. If damage to the liner was observed during removal, one sample will be collected beneath the liner were the damage was observed.

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 3

Number of soil samples exceeding 910-1 3

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 8700

NA / ND

-- Highest concentration of TPH (mg/kg) 74.9

-- Highest concentration of SAR 17

BTEX > 910-1 No

Vertical Extent > 910-1 (in feet) 4

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

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.

Excavation of Cell 1 to remove soils above the COGCC Table 910-1. Activities completed in accordance with the Wilson Creek Unit Onsite Landfarm – Cell 1 Closure Workplan (Work Plan) Document #402191055 submitted on September 27, 2019.

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.

Analytical data collected from Centralized Exploration and Production (E&P) Waste Management Facility (Cell 1), for compliance with permitting, indicated arsenic concentrations in soil are above Colorado Department of Public Health and Environment (CDPHE) state background levels of 11 milligrams per kilogram (mg/kg) and treatment through landfarming technology is ineffective for this constituent. Due to the high arsenic concentrations in Cell 1, Chevron decided to remediate Cell 1 through excavation and offsite disposal. Excavation of Cell 1 to remove soils above the COGCC Table 910-1 completed in October 2019. It is anticipated that final topography and revegetation will occur following future Cell 2 closure activities.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 2400

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ 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

Frequency: Quarterly Semi-Annually Annually Other Ongoing

Report Type: Groundwater Monitoring Land Treatment Progress Report O&M Report
 Other Remediation Documentation Report

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:

None

Volume of E&P Waste (solid) in cubic yards 2400

E&P waste (solid) description Soils above COGCC Table 910-1
Concentration Levels in Centralized
E&P Waste Management Facility

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: Wray Gulch Landfill

Volume of E&P Waste (liquid) in barrels 0

E&P waste (liquid) description _____

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: _____

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

Do all soils meet Table 910-1 standards? No

Does the previous reply indicate consideration of background concentrations? _____

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? Yes

Does Groundwater meet Table 910-1 standards? _____

Is additional groundwater monitoring to be conducted? _____

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.

It is anticipated that final topography and revegetation will occur following future Cell 2 closure activities.

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 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). _____

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. _____

REMEDIAL ACTION DATES

Date of commencement of Remediation. 10/07/2019

Date of completion of Remediation. 10/22/2019

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Attention: Mr. Steven J. Arauza, P.G.
 Environmental Protection Specialist
 Colorado Oil and Gas Conservation Commission
 Department of Natural Resources
 Phone 303.894.2100, ext. 5689|Cell 720.498.5298
 818 Taughenbaugh Blvd, Suite 103, Rifle, CO 81650
 steven.arauza@state.co.us

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

Signed: Christopher Beall _____

Title: Associate Geologist _____

Submit Date: 01/08/2020 _____

Email: Christopher.Beall@stantec.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: Steven Arauza _____

Date: 01/21/2020 _____

Remediation Project Number: 14816 _____

COA Type**Description**

	Operator shall submit an anticipated closure schedule for Cell 2 via a Supplemental eForm 27.
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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**

402262833	FORM 27-SUPPLEMENTAL-SUBMITTED
402262969	REMEDATION PROGRESS REPORT

Total Attach: 2 Files

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

Environmental	Under Implementation Schedule, operator reports a Date of completion of Remediation as 10/22/2019. This remediation project describes closure of Cell 1 and Cell 2 at the subject location. The COGCC does not concur that remediation was completed on 10/22/2019, since Cell 2 was not remediated prior to that date.	01/17/2020
Environmental	Work described under Proposed Soil Sampling was completed for Cell 1 in October 2019.	01/17/2020

Total: 2 comment(s)