

State of Colorado Oil and Gas Conservation Commission

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Document Number:

402641278

Receive Date:

03/29/2021

Report taken by:

KRIS NEIDEL

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: CHEVRON USA INC	Operator No: 16700	Phone Numbers Phone: (907) 675-5363 Mobile: (307) 871-5363
Address: 100 CHEVRON ROAD		
City: RANGELY	State: CO Zip: 81648	
Contact Person: Chris Patterson	Email: spwu@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 17778

Initial Form 27 Document #: 402641278

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 checked="" 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

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

Facility Type: SPILL OR RELEASE	Facility ID: 477274	API #: _____	County Name: RIO BLANCO
Facility Name: MC Hagood A8		Latitude: 40.148365	Longitude: -108.949170
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWNW	Sec: 15	Twp: 2N	Range: 103W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications CH

Most Sensitive Adjacent Land Use Non Crop Land

Is domestic water well within 1/4 mile? No

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

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
Yes	SOILS	781ft. x 2ft. x 0.5 ft	Field Measured

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 5.66 bbl produced water spill to land from a buried 3 inch Corvel coated line just off of pad at MC Hagood A8. 5 bbls of fluids were recovered, line was immediately isolated upon discovery and all proper notifications were made. The spill originated from 6 ft. underground. Area was water washed with clean water from the main water plant. A soil sample was collected within the length of the spill. A soil sample location map and preliminary analytical results are included as an attachment.

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):

Preliminary soil samples were collected on July 8, 2020 from beneath the repaired flowline and on July 14, 2020 from the impacted area. Six (6) grab samples analyzed for Table 910-1 parameters were collected at depths ranging from 0 to 6 feet below ground surface (ft-bgs). Results show elevated SAR and EC levels within the impacted area. Subsequent soil samples analyzed for SAR will be collected from Origin and SS1-SS4 sample locations and for EC from origin, SS1, SS2 and SS4 sample locations during 2021 to monitor natural attenuation. SAR and EC impacted soils will be treated in-situ by Natural Attenuation. After initial water wash seasonal precipitation events will be utilized.

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 6

Number of soil samples exceeding 910-1 5

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

Approximate areal extent (square feet) 1562

NA / ND

-- Highest concentration of TPH (mg/kg) 360

-- Highest concentration of SAR 49

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?

Background samples were collected.

☐ 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.

No soil is intended for removal. SAR and EC impacted soils will be treated in-situ by Natural Attenuation. After initial water wash seasonal precipitation events will be utilized. Subsequent soil samples analyzed for SAR will be collected from SS1-SS4 sample locations and for EC at the SS1, SS2 and SS4 sample locations during 2021 to monitor natural attenuation.

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.

SAR and EC impacted soils will be treated in-situ by Natural Attenuation. After initial water wash seasonal precipitation events will be utilized. Subsequent soil samples analyzed for SAR will be collected from SS1-SS4 sample locations and for EC at the SS1, SS2 and SS4 sample locations during 2021 to monitor natural attenuation.

Soil Remediation Summary

☒ In Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

Yes _____ 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 REM Progress Rpt. _____

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? _____

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.

Site will be reclaimed and seeded once repairs are completed.

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. 07/08/2020

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/14/2020

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. 07/14/2020

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Please see attachemet

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

Signed: ` Chris Patterson

Title: Lead ENV Specialist

Submit Date: ` 03/29/2021

Email: spwu@chevron.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: KRIS NEIDEL

Date: 04/21/2021

Remediation Project Number: 17778

Condition of Approval**COA Type****Description**

	Per Rule 915.f, if the remediation project is not completed by January 15, 2022, soils shall comply with Table 915-1.
	Request for Annual reported is denied, semi annual reporting shall be done until spill is closed.
	At source of spill, a sample below the release shall be collected, to provide vertical delineation.
	Due to elevated SAR (36,48) it is unclear if soil will be compliant in 2021. Soil shall be sampled in fall 2021 and results reported on a Form 27 yet this year.
4 COAs	

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**

402641278	FORM 27-INITIAL-SUBMITTED
402641281	ANALYTICAL RESULTS

Total Attach: 2 Files

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

Environmental	spill 477274 shall be closed with a F19s.	04/21/2021
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Total: 1 comment(s)