FORM 27 Rev 3/16

State of Colorado
Oil and Gas Conservation Commission

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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 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: CHEVRON USA INC Operator No: 16700
Address: 100 CHEVRON ROAD
City: RANGELY State: CO Zip: 81648
Contact Person: Adriane Gifford Email: agifford@chevron.com

Phone Numbers
Phone: (832) 854-5620
Mobile: (832) 270-3436

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 10501 Initial Form 27 Document #: 401379557

PURPOSE INFORMATION

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

SITE INFORMATION

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

Facility Type: PIT Facility ID: 102571 API #: County Name: RIO BLANCO
Facility Name: RANGLEY WEBER STATION 47 Latitude: 40.094781 Longitude: -108.811852
** correct Lat/Long if needed: Latitude: 40.094902 Longitude: 108.811965
QtrQtr: NWNE Sec: 35 Twp: 2N Range: 102W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications GC
Most Sensitive Adjacent Land Use Dry 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? Yes

Other Potential Receptors within 1/4 mile

No wells, White River approximately 600 ft. North and 1200 ft. West of Site Location.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [x] **E&P Waste**
  - [ ] Produced Water
  - [x] Oil
  - [ ] Condensate
  - [ ] Drilling Fluids
  - [ ] Drill Cuttings
- [ ] **Other E&P Waste**
  - [ ] Workover Fluids
  - [ ] Tank Bottoms
  - [ ] Pigging Waste
  - [ ] Rig Wash
  - [ ] Spent Filters
  - [ ] Pit Bottoms
  - [ ] Other (as described by EPA) _____
- [ ] **Non-E&P Waste** _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	HC Impacts near MW-1	Soil Boring-Soil Samples

INITIAL ACTION SUMMARY

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

Advancement of a total of six soil borings (SB-01 through SB-06) and installation of two down-gradient monitoring wells (MW-04 and MW-05) was completed to address the COAs described in document # 401203492 (REM PROJ # 8564). See the Soil Characterization Report - PIT CS-47.

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):

Proposed Groundwater Sampling

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

Complete four quarters of groundwater monitoring and sampling to monitor 2018 remediation effectiveness.

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: 0

Number of soil samples exceeeding 910-1:

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

Approximate areal extent (square feet):

NA / ND

NA — Highest concentration of TPH (mg/kg):

NA — Highest concentration of SAR:

BTEX > 910-1: No

Vertical Extent > 910-1 (in feet):

Groundwater

Number of groundwater samples collected: 28

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet): 12`

Number of groundwater monitoring wells installed: 0

Number of groundwater samples exceeding 910-1: 5

-- — Highest concentration of Benzene (µg/l): 0.00022

ND — Highest concentration of Toluene (µg/l):

ND — Highest concentration of Ethylbenzene (µg/l):

ND — Highest concentration of Xylene (µg/l):

NA — Highest concentration of Methane (mg/l):

Surface Water

0 Number of surface water samples collected

0 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?

Four quarters of groundwater monitoring and sampling were completed at Site monitoring wells in 2019. BTEX concentrations in all monitoring wells were less than the Concentration Levels. Chloride concentrations at monitoring wells MW-03 and MW-06 (ranging from 580 milligrams per liter [mg/L] to 880 mg/L) exceeded the Concentration Level of 562.5 mg/L, which was based on 1.25 times the concentration of chloride at MW-02 (450 mg/L) on September 21, 2018. Sulfate concentrations at MW-06 (ranging from 2,000 mg/L to 2,300 mg/L) were at or exceeded the Concentration Level of 2,000 mg/L, which was based on 1.25 times the concentration of sulfate at MW-02 (1,600 mg/L) on September 21, 2018.

☒ Were background samples collected as part of this site investigation?

Chloride concentrations at monitoring wells MW-03 and MW-06 (ranging from 580 milligrams per liter [mg/L] to 880 mg/L) exceeded the Concentration Level of 562.5 mg/L, which was based on 1.25 times the concentration of chloride at MW-02 (450 mg/L) on September 21, 2018. Sulfate concentrations at MW-06 (ranging from 2,000 mg/L to 2,300 mg/L) were at or exceeded the Concentration Level of 2,000 mg/L, which was based on 1.25 times the concentration of sulfate at MW-02 (1,600 mg/L) on September 21, 2018.

☒ Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards): 0

Volume of liquid waste (barrels): 4

☐ Is further site investigation required?

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Please refer to the "Remedial Excavation Work Plan" dated June 26, 2018

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.

Please refer to the "Remedial Excavation Work Plan" dated June 26, 2018

Soil Remediation Summary

☒ In Situ

Yes	Bioremediation (or enhanced bioremediation)
	Chemical oxidation
	Air sparge / Soil vapor extraction
	Natural Attenuation
Yes	Other: Please refer to the "Remedial Excavation Work Plan" dated June 26, 2018

☒ Ex Situ

Yes	Excavate and offsite disposal
	If Yes: Estimated Volume (Cubic Yards) 1200
	Name of Licensed Disposal Facility or COGCC Facility ID #
Yes	Excavate and onsite remediation
No	Land Treatment
No	Bioremediation (or enhanced bioremediation)
No	Chemical oxidation
Yes	Other: Chevron's landfarm (Facility ID 149001)

Groundwater Remediation Summary

☐	Bioremediation (or enhanced bioremediation)
☐	Chemical oxidation
☐	Air sparge / Soil vapor extraction
☐	Natural Attenuation
Yes	Other: Please refer to the "Remedial Excavation Work Plan" dated June 26, 2018

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.

Please refer to the "Remedial Excavation Work Plan" dated June 26, 2018

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: ☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other Four quarters of groundwater monitoring and sampling were completed at Site monitoring wells in 2019

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

☐ Other

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 0

E&P waste (solid) description

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

Volume of E&P Waste (liquid) in barrels 4

E&P waste (liquid) description Purged groundwater from Site monitoring wells.

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: Chevron's Rangely Water Plant

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

Do all soils meet Table 910-1 standards? Yes

Does the previous reply indicate consideration of background concentrations? Yes

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

Does Groundwater meet Table 910-1 standards? No

Is additional groundwater monitoring to be conducted? No

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 was recontoured to original grade. The site will remain an operating collection station and will not be reclaimed until oil and gas operations cease.

Is the described reclamation complete?

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). 05/15/2017

Date of commencement of Site Investigation. 05/15/2017

Date of completion of Site Investigation. 12/13/2017

REMEDIAL ACTION DATES

Date of commencement of Remediation. 08/06/2018

Date of completion of Remediation. 12/31/2018

SITE RECLAMATION DATES

Date of commencement of Reclamation. 08/06/2018

Date of completion of Reclamation. 12/31/2018

OPERATOR COMMENT

Attention: Kris Neidel
(970) 871-1963
(970) 846-5097 (cell)
(970) 879-5327 (fax)
kris.neidel@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:`

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:

Date:

Remediation Project Number: 10501

COA Type	Description

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
402293091	MONITORING REPORT

Total Attach: 1 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)