

# State of Colorado Oil and Gas Conservation Commission

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Document Number:

401964963

Receive Date:

03/07/2019

Report taken by:

KRIS NEIDEL

## 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 INFORMATION

Name of Operator: <u>CHEVRON USA INC</u>	Operator No: <u>16700</u>	<b>Phone Numbers</b>
Address: <u>6301 DEAUVILLE BLVD</u>		Phone: <u>(713) 3721022</u>
City: <u>MIDLAND</u>	State: <u>TX</u> Zip: <u>79706</u>	Mobile: <u>(832) 2703436</u>
Contact Person: <u>Adriane Gifford</u>	Email: <u>agifford@chevron.com</u>	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

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

#### 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 checked="" type="checkbox"/> Other <u>Remediation Work Plan</u>                                     |

#### SITE INFORMATION

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

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

#### SITE CONDITIONS

General soil type - USCS Classifications GCMost Sensitive Adjacent Land Use Dry LandIs domestic water well within 1/4 mile? NoIs surface water within 1/4 mile? YesIs 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:

☒ 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	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 attached 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 ):

Advance up to 18 soil borings (12 proposed and 6 contingent) to determine the lateral extent of petroleum hydrocarbons in soil. At each soil boring collect up to 3 samples at varying intervals. Refer to Soil Characterization Report - PIT CS-47 for details on proposed assessment.

#### Proposed Groundwater Sampling

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

Refer to Soil Characterization Report - PIT CS-47 for details on proposed assessment.

#### 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 19  
Number of soil samples exceeding 910-1 8  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 3600

### NA / ND

-- Highest concentration of TPH (mg/kg) 28150  
-- Highest concentration of SAR 12  
BTEX > 910-1 No  
Vertical Extent > 910-1 (in feet) 13

### Groundwater

Number of groundwater samples collected 13  
Was extent of groundwater contaminated delineated? Yes  
Depth to groundwater (below ground surface, in feet) 12'  
Number of groundwater monitoring wells installed 1  
Number of groundwater samples exceeding 910-1 0

-- Highest concentration of Benzene (µg/l) 0.65  
-- Highest concentration of Toluene (µg/l) 0.56  
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?

Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

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

MW-2, which is located hydraulically upgradient of observed hydrocarbon impacts to soil. Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

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

Volume of solid waste (cubic yards) 1 Volume of liquid waste (barrels) 1

☒ Is further site investigation required?

Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

# 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 attached "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 attached "Remedial Excavation Work Plan" dated June 26, 2018

## Soil Remediation Summary

☐ In Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Other Please refer to attached  
"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 attached  
"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.

Post remediation groundwater monitoring will be conducted in the first, second, third, and fourth quarters of 2019. Groundwater collection will be completed at all Site monitoring wells by bailing three three well volumes prior to collection of samples for laboratory analysis. Groundwater samples along with required duplicates and trip blanks will be sent to Eurofins TestAmerica Laboratory (Laboratory), for analysis under suitable chain-of-custody procedures. Groundwater samples will be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8260B, and chloride/sulfate by EPA Method 9056A.

## REMEDATION PROGRESS UPDATE

### PERIODIC REPORTING

**Frequency:** ☐ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other \_\_\_\_\_

**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? \_\_\_\_\_

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: \_\_\_\_\_

## REMEDATION COMPLETION REPORT

### REMEDATION COMPLETION SUMMARY

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

Do all soils meet Table 910-1 standards? \_\_\_\_\_

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? \_\_\_\_\_

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.

TBD

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. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

### OPERATOR COMMENT

Per the conference call on February 25, 2019 between Chevron and the COGCC, Chevron has attached a formal response to COA (RE Response #1) for Document # 401938091. The attached document provides rationale for the discrepancy in surface elevations at SB-1 through SB-6. In addition, attached are revised boring logs with the updated elevations referenced. Per the conference call, Chevron agreed to conduct post-remediation monitoring as described in the Remedial Action Section of this submittal. During the call, the COGCC agreed that additional soil sampling in the smear zone was not necessary, but would evaluate the groundwater monitoring data collected in 2019.

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

Signed: Brent Lucyk

Title: Senior Project Manager

Submit Date: 03/07/2019

Email: brent.lucyk@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: KRIS NEIDEL

Date: 03/12/2019

Remediation Project Number: 10501

### 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

401964963	FORM 27-SUPPLEMENTAL-SUBMITTED
401965010	LOGS
401965012	CORRESPONDENCE

Total Attach: 3 Files

### General Comments

#### User Group

#### Comment

#### Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)