

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



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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 INFORMATON

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

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 10501 Initial 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 Facilites (in accordance with Rule 909.c.)

Facility Type: <u>PIT</u>	Facility ID: <u>102571</u>	API #: _____	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 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:

- | | | |
|---|--|--|
| <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	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

REMEDICATION 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.

REMEDIATION 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: _____

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? _____

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

<u>COA Type</u>	<u>Description</u>

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

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)