

State of Colorado  
Oil and Gas Conservation Commission

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Report taken by:  
Stan Spencer

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: CPX PICEANCE HOLDINGS LLC	Operator No: 10639	<b>Phone Numbers</b>
Address: 34 S WYNDEN DR STE 240		Phone: (713) 554-9031
City: HOUSTON State: TX Zip: 77056		Mobile: ( )
Contact Person: Nick Kurtenbach	Email: nick@cpxpiceance.com	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**  
Remediation Project #: 10807 Initial Form 27 Document #: 401488231

**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 checked="" 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 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: PIT	Facility ID: 416339	API #: _____	County Name: GARFIELD
Facility Name: TEPEE PARK CFF	Latitude: 39.396090	Longitude: -107.833500	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNE	Sec: 36	Twp: 7S	Range: 94W Meridian: 6 Sensitive Area? Yes

**SITE CONDITIONS**

General soil type - USCS Classifications GC      Most Sensitive Adjacent Land Use Beaver Creek is approximately 260 feet SW.

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:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> <b>E&amp;P Waste</b> | <input type="checkbox"/> <b>Other E&amp;P Waste</b>        | <input checked="" type="checkbox"/> <b>Non-E&amp;P Waste</b> |
| <input checked="" type="checkbox"/> Produced Water       | <input type="checkbox"/> Workover Fluids                   | Pit materials not in contact with produced water. _____      |
| <input 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
UNDETERMINED	SOILS	Undetermined	To be determined

## INITIAL ACTION SUMMARY

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

Materials in contact with E&P waste will be disposed of as E&P waste.

## 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 ):

Five discrete soil samples will be collected from the soil immediately beneath the low points of the pit. Soil samples will be analyzed for compounds listed in COGCC Table 910-1. Please see attached diagram for the soil sample locations.

### 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 ):

Pit water was sampled and analyzed for COGCC Table 910-1 compounds on 6/21/2018. Samples were collected in three locations. Each location had an upper water level and lower water level discreet sample collected, for a total of six water samples. All Table 910-1 compounds passed except for several exceedences for GRO and DRO. There were three GRO exceedences of 1.1, 2.7, and 0.7 mg/l. There was one DRO exceedence of 7.3 mg/l. Please see attached lab results.

Additional produced water from operations is being stored in the pit, due to the access road closure. Water from the pit will need to be re-tested prior to disposal or beneficial re-use. We anticipate retesting to occur is early September 2018.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 0  
Number of soil samples exceeding 910-1 \_\_\_\_\_  
Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_  
Approximate areal extent (square feet) \_\_\_\_\_

### NA / ND

\_\_\_\_\_ Highest concentration of TPH (mg/kg) \_\_\_\_\_  
\_\_\_\_\_ Highest concentration of SAR \_\_\_\_\_  
\_\_\_\_\_ BTEX > 910-1 \_\_\_\_\_  
\_\_\_\_\_ Vertical Extent > 910-1 (in feet) \_\_\_\_\_

### Groundwater

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 25  
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.

The pit is to be demolished. The pit liner and other materials in contact with the contents (produced water) will be disposed of as E&P waste. Other materials will be disposed of as solid waste. All waste will be disposed at an approved landfill.

## **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.

Soil beneath the pit will be sampled as described in the site investigation plan. Impacted soil, if any, will be removed and disposed of at an approved landfill.

## **Soil Remediation Summary**

### In Situ

- \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )
- \_\_\_\_\_ Chemical oxidation
- \_\_\_\_\_ Air sparge / Soil vapor extraction
- \_\_\_\_\_ 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.

## REMEDIATION PROGRESS UPDATE

### PERIODIC REPORTING

**Frequency:**  Quarterly  Semi-Annually  Annually  Other After the demolition and removal of the pit.

**Report Type:**  Groundwater Monitoring  Land Treatment Progress Report  O&M Report  
 Other Pit closure 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 200

E&P waste (solid) description Spent pit materials.

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: Greenleaf

Volume of E&P Waste (liquid) in barrels 10000

E&P waste (liquid) description Produced water

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: Greenleaf

## 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.

The compacted soil beneath the pit will be left in place if not impacted. The material will be ripped, mixed with native soil in a manner to alleviate compaction, and seeded.

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? Yes

If NO, does the seed mix comply with local soil conservation district recommendations? Yes

## IMPLEMENTATION SCHEDULE

### **PRIOR DATES**

Date of Surface Owner notification/consultation, if required. 12/15/2017

Actual Spill or Release date, if known. \_\_\_\_\_

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 06/04/2018

Date of commencement of Site Investigation. 10/01/2018

Date of completion of Site Investigation. 11/05/2018

### **REMEDIAL ACTION DATES**

Date of commencement of Remediation. 10/22/2018

Date of completion of Remediation. 11/19/2018

### **SITE RECLAMATION DATES**

Date of commencement of Reclamation. \_\_\_\_\_

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

**OPERATOR COMMENT**

This Supplemental Form 27 is being provided to update the COGCC on the status of the production pit located at the TEPEE Park CFF (Facility ID 416339, REM 10807).

A total of 12 samples have been collected from the water within the pit, six (6) on June 21, 2018 and another six (6) on August 9, 2018. The samples were collected from the surface and subsurface (~7-8ft below surface) at the three previously established sample points as outlined in the sampling diagram submitted on 7/19/18 (see Doc# 401706340).

The pit water was analyzed for constituents outlined in COGCC Table 901-1 and is used to determine treatment options for both the water within the pit, as well as to be utilized as water to apply additional bioremediation product to the cuttings being landfarmed on the TPR 25A location.

The pit is scheduled to be treated during the week of Sept 10-14, 2018. After treatment is applied, three samples from the pit water will be collected later in the week, or the the following, to determine effectiveness of the treatment. If treatment was successful in getting concentrations to meet beneficial reuse standards, CPX will remove the water via water truck and apply it to the landfarm on the TPR 25A location to allow the active microbes to continue to degrade the hydrocarbons within the cuttings being landfarmed.

Once all water has been removed, the pit will be scheduled for closure starting in October 2018 and final closure documentation will be provided to the COGCC, including figures of the discrete sample locations and analytical results by the January 31, 2018 deadline as outlined in the Supp. Form 27 (Doc# 401509419).

Attached are the analytical results, as well as a data table illustrating the results from the 12 samples collected.

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

Signed: ` Kris Rowe \_\_\_\_\_

Title: HRL Compliance Solutions \_\_\_\_\_

Submit Date: ` 09/07/2018 \_\_\_\_\_

Email: krowe@hrlcomp.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: 09/28/2018 \_\_\_\_\_

Remediation Project Number: 10807 \_\_\_\_\_

**COA Type****Description**

	Provide the treatment process for treating fluids in the pit.
	Operator shall conduct final reclamation in accordance with Rule 1004 and coordinate with COGCC Reclamation Specialist.
	Operator describes 200 cubic yards of 'spent pit materials.' Please clarify.
	Operator states that "five discrete soil samples will be collected from the soil immediately beneath the low points of the pit..." Operator shall ensure that these will be discrete samples, not composite samples.  In addition to discrete soil samples described, operator shall collect a minimum of five (5) discrete confirmation soil samples: one from the base of pit and one from each of the four sidewalls, for analysis of Table 910-1 constituents prior to backfilling the pit.
	Operator indicates that "The pit liner and other materials in contact with contents (produced water) will be disposed of as E&P waste."  Operator shall dispose of pit liner in accordance with Rule 905.b.(3).

**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**

401756972	FORM 27-SUPPLEMENTAL-SUBMITTED
401756981	ANALYTICAL RESULTS
401756982	ANALYTICAL RESULTS
401756983	ANALYTICAL RESULTS
401756984	ANALYTICAL RESULTS

Total Attach: 5 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)