

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402703249  
Receive Date:  
06/01/2021

Report taken by:  
John Heil

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: TEP ROCKY MOUNTAIN LLC	Operator No: 96850	Phone Numbers Phone: (970) 263-2760 Mobile: (970) 623-4875
Address: PO BOX 370		
City: PARACHUTE	State: CO	Zip: 81635
Contact Person: Michael Gardner	Email: mgardner@terraep.com	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**  
Remediation Project #: 18430 Initial Form 27 Document #: 402703249

**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: TANK BATTERY	Facility ID: 479988	API #: _____	County Name: GARFIELD
Facility Name: MV 9-32-696 Tank Battery	Latitude: 39.481235	Longitude: -108.132667	
** correct Lat/Long if needed: Latitude: 39.481229		Longitude: -108.132659	
QtrQtr: NESW	Sec: 32	Twp: 6S	Range: 96W Meridian: 6 Sensitive Area? Yes

**SITE CONDITIONS**

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use Rangeland

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**

South Fork is located ~ 230 feet to the east and Starkey Gulch lies approximately 375 feet to the north. Nearest developed groundwater wells are located ~2,548 feet to the northeast at the Starkey Waste Management Facility, which has groundwater depth noted at 60 feet. The elevation difference between the groundwater wells and the release area is ~ 133 feet, suggesting that groundwater is located at ~190-200 feet.

# 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 type="checkbox"/> Oil                   | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" 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	area of impact measures 20'x20'x20'	field screening and confirmation data

## INITIAL ACTION SUMMARY

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

TEP personnel dispatched vac truck equipment to recover any free standing liquids within the secondary containment. It was also discovered that approximately 3 bbls of condensate / storm water leaked out of the containment in the northwest corner from a faulty patch on the poly liner. Field screening instruments (PID and PetroFlag) indicated that soil contained a very high hydrocarbon concentration (5,000 ppm+). The area was flagged off and utility locates called to allow for excavation of the impacted soils.

## 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 ):

Soil samples will be collected from the excavation side walls at a position centered in depth as well as on the lowest point of the excavation bottom.

### 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 5  
Number of soil samples exceeding 910-1 0  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 400

### NA / ND

-- Highest concentration of TPH (mg/kg) 0  
-- Highest concentration of SAR 0  
BTEX > 910-1 \_\_\_\_\_  
Vertical Extent > 910-1 (in feet) 20

### Groundwater

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 190'  
Number of groundwater monitoring wells installed 0  
Number of groundwater samples exceeding 910-1 0

\_\_\_\_ 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  
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?

Impacts extended approximately 20 feet north and west from the secondary containment.

Were background samples collected as part of this site investigation?

One (1) background sample was collected on the eastern side of the access road as shown in the attached maps

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.

The leaking condensate tank was removed from service. The entire tank battery is being reduced from 4 tanks to 2 tanks. The two new tanks are internally coated to prevent / minimize future occurrence of tank failure. The secondary containment will be metal structure with a new liner, and will be reduced accordingly to accommodate the two new tanks.

## 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.

Impacted soils were excavated utilizing heavy equipment. Approximately 140 yards of soil with high TPH concentrations were hauled offsite to Greenleaf Environmental for disposal. An additional 140 yards of soil that contained a lower TPH concentration were placed within a landfarm onsite as shown in the landfarm map. Soils within the landfarm will be tilled on a monthly basis and samples collected in June/July to determine hydrocarbon concentrations. Once hydrocarbon concentrations indicate soils satisfy Table 915-1 thresholds, a sample will be analyzed for full Table 915-1 constituents.

## Soil Remediation Summary

In Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

Ex Situ

Yes \_\_\_\_\_ Excavate and offsite disposal  
If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 120  
Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_  
Yes \_\_\_\_\_ Excavate and onsite remediation  
Yes \_\_\_\_\_ Land Treatment  
No \_\_\_\_\_ Bioremediation (or enhanced bioremediation)  
No \_\_\_\_\_ Chemical oxidation  
No \_\_\_\_\_ Other \_\_\_\_\_

## Groundwater Remediation Summary

No \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
No \_\_\_\_\_ Chemical oxidation  
No \_\_\_\_\_ Air sparge / Soil vapor extraction  
No \_\_\_\_\_ 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.

Groundwater impacts are not anticipated at this time.

# 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: \_\_\_\_\_

## 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.

Once the excavation confirmation samples indicate compliance with Table 915-1, the area will be backfilled and contoured to the current grade. Reclamation will be completed in accordance with the COGCC 1000 series rules.

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. 05/11/2021

Actual Spill or Release date, if known. 05/11/2021

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/13/2021

Date of commencement of Site Investigation. 05/13/2021

Date of completion of Site Investigation. 05/25/2021

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 05/11/2021

Date of completion of Remediation. 05/25/2021

### SITE RECLAMATION DATES

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

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

**OPERATOR COMMENT**

Please forward onto John Heil

This Initial Form 27 is being submitted as requested by the COGCC within the COA's of the initial Form 19 spill reporting for the release that occurred at the MV 9-32 tank battery. Information outlines the remediation efforts that have currently occurred and management of excavated materials.

Confirmation samples have been collected from excavation side walls and pit bottom on 5/25/2021. An updated Supplemental Form 27 will be submitted once analytical data results have been received.

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

Signed: Michael Gardner

Title: TEP Environmental

Submit Date: 06/01/2021

Email: mgardner@terraep.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: John Heil

Date: 06/09/2021

Remediation Project Number: 18430

### **Condition of Approval**

**COA Type**

**Description**

	Operator states "Date of completion of Remediation. 05/25/2021" COGCC has yet to receive any preliminary or confirmation soil sample analytical results. This information shall be provided on a Supplemental Form 27.
	Operator shall comply with Rule 913.c.(4).
	Operator states "An additional 140 yards of soil that contained a lower TPH concentration were placed within a landfarm onsite as shown in the landfarm map. Soils withing (sic) the landfarm will be tilled on a monthly basis and samples collected in June/July to determine hydrocarbon concentrations. Once hydrocarbon concentrations indicate soils satisfy Table 915-1 thresholds, a sample will be analyzed (sic) for full Table 915-1 constituents."  Rule 905.e.(2) states: "Prior to commencing any Land Treatment, Operators will submit and obtain approval of a Form 27." Operator did not submit and obtain approval of a Form 27 prior to commencing any Land Treatment.  Operator shall provide a Supplemental Form 27. The Supplemental Form 27 shall include information required under Rule 912.b.(4). Additionally, Operator shall provide field screening results including a map depicting field screening and confirmation samples, depth of sample collected from field screening and confirmation samples, and any other pertinent information describing the site investigation and remedial efforts.
	Operator shall comply with Rule 304.a.(2).
	Operator shall repair the secondary containment devices per Rule 603.o.
	It is stated, "Approximately 140 yards of soil with high TPH concentrations were hauled offsite to Greenleaf Environmental for disposal. An additional 140 yards of soil that contained a lower TPH concentration were placed within a landfarm onsite as shown in the landfarm map."  Operator shall provide waste manifest for the E&P waste disposed off Location.  Operator shall provide the basis for determining the "low" vs "high" TPH soil concentrations.

	<p>It appears that the Operator expanded the Location without prior approval of the COGCC. Operator shall comply with Rule 304.a.(2).</p> <p>OIL AND GAS LOCATION shall mean a definable area where an operator has disturbed or intends to disturb the land surface in order to locate an oil and gas facility.</p> <p>OIL AND GAS FACILITY means equipment or improvements used or installed at an oil and gas location for the exploration, production, withdrawal, treatment, or processing of crude oil, condensate, E&amp;P waste, or gas.</p>
	Operator shall comply with Rule 913.b.(5).B.i-v.
8 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.

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
402703249	FORM 27-INITIAL-SUBMITTED
402703436	MAP
402703437	MAP
402703438	MAP

Total Attach: 4 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Environmental	Based on 5/26/2021 Inspection Doc #699700256 it appears that the Land Treatment area is partially off-site and is built across an un-named, dry arroyo. Operator is not in compliance with Rule 905.e.(1).B. and Rule 304.a.(2).	06/09/2021
Environmental	See 5/25/2021 Inspection Doc #699700255 and 5/26/2021 Inspection Doc #699700256 for more information.	06/09/2021

Total: 2 comment(s)