

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402375435  
Receive Date:  
08/31/2020

Report taken by:  
John Heil

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>BARGATH LLC</u>	Operator No: <u>10128</u>	<b>Phone Numbers</b>
Address: <u>2717 COUNTY ROAD 215 SUITE 200</u>		Phone: <u>(801) 5846746</u>
City: <u>PARACHUTE</u> State: <u>CO</u> Zip: <u>81635</u>		Mobile: <u>(801) 2441219</u>
Contact Person: <u>Aaron Galer</u>	Email: <u>aaron.galer@williams.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**  
Remediation Project #: 14388 Initial Form 27 Document #: 402014147

**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: <u>GAS COMPRESSOR STATION</u>	Facility ID: <u>424540</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>WASATCH COMPRESSOR STATION</u>	Latitude: _____	Longitude: _____	
** correct Lat/Long if needed: Latitude: <u>39.477314</u>		Longitude: <u>-108.007805</u>	
QtrQtr: <u>SWSW</u>	Sec: <u>33</u>	Twp: <u>6S</u>	Range: <u>95W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

**SITE CONDITIONS**

General soil type - USCS Classifications MH Most Sensitive Adjacent Land Use Agriculture

Is domestic water well within 1/4 mile? Yes 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"/> 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	50' x 50' x 20'; 20' x 25' x 15'	Field screening and laboratory analysis

## INITIAL ACTION SUMMARY

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

Impacts were discovered during trenching for a pipeline replacement project. Discolored and odorous soils were encountered in a north/south trench leading from the compressor building and an east/west trench on the west side of the condensate tank secondary containment. Two soil samples were collected from each trench and analyzed for TPH-GRO, DRO, and VOCs. A tracer dye test was performed on the secondary containment to identify the leak locations.

## 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 ):

Fourteen boreholes were advanced both inside and outside the facility fence line. Two samples were collected from each borehole, one from the depth with the highest PID reading and one from the bottom of the borehole. All samples were submitted for GRO, DRO, and BTEX analysis. Contamination was identified from 4.5 feet below ground surface (bgs) to just above a clay layer at approximately 30 feet bgs.

Three additional soil borings were advanced to 32, 32, and 34 feet below ground surface in the vicinity of the previous borings to evaluate remaining impacts. All three locations had BTEX concentrations exceeding the COGCC Table910-1 standards (see attached analytical report).

Additional sampling is required to complete delineation of the impacts identified at the site (see attached plan).

### 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 ):

Additional soil delineation is necessary. See the attached plan.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 44  
Number of soil samples exceeding 910-1 17  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 3500

### NA / ND

--        Highest concentration of TPH (mg/kg) 7360  
NA        Highest concentration of SAR         
       BTEX > 910-1 Yes  
       Vertical Extent > 910-1 (in feet) 32

### Groundwater

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

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?

An additional soil delineation work plan is attached.

# 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.

Approximately 210 cubic yards of impacted soil was excavated from the areas surrounding BH-04 and BH-10 to a depth of 14 feet below ground surface (bgs). Samples were collected from the bottom of the excavation and submitted for GRO and DRO analysis. Analytical results from bottom of the excavation confirmed GRO and DRO concentration were below standards. A complete Table 910-1 was requested on the sample. Excavation was completed on the southwest corner of the containment area. EX-15 was a hole dug between the two active pipelines to a depth of 8 feet bgs. A sample was collected and submitted for BTEX, GRO, and DRO analysis. The results exceeded the TPH and Benzene cleanup standard. An additional 6 feet was excavated and another sample was collected at 14 feet bgs and submitted for a full Table 910-1 analysis. The benzene result was 1 mg/kg exceeding the cleanup standard. Further excavation was not possible due to the depth and location near facility infrastructure. Clean fill was used to backfill the excavation. A new secondary containment was constructed around the condensate tanks in January 2013.

## 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.

Remediation of impacted soil was completed by excavation to a depth of 14 feet bgs. 210 cubic yards of condensate contaminated soil was disposed of at the EDCD landfill in Carbon, UT. Due to the depth of the remaining impacts, in-situ remediation via natural attenuation has been the remedial approach.

As of 11/18/2012, remaining impacts were

- BH-04: 620 mg/kg TPH @ 17.5'-19.5' bgs

- BH-05: 1,600 mg/kg TPH and 0.44 mg/kg Benzene @ 25'-27' and 0.26 mg/kg Benzene @ 30'-32' bgs

- EX-15: 1.0 mg/kg Benzene @ 14' bgs

We will plan on advancing three soil borings near BH-04, BH-05, and EX-15 to evaluate remaining contaminant levels. If BTEX and TPH contamination remains above Table 910-1 values, SVE wells targeting the most impacted zones will be installed.

## Soil Remediation Summary

In Situ

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

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

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

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

\_\_\_\_\_ Other \_\_\_\_\_

Ex Situ

Yes \_\_\_\_\_ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 210

Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_ 4041

\_\_\_\_\_ 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 \_\_\_\_\_

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 \_\_\_\_\_ 213

E&P waste (solid) description \_\_\_\_\_ condensate impacted soil

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_ 4041

Non-COGCC Disposal Facility: \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_ 0

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.

Clean fill was imported to backfill the excavations and the site was regraded to the original conditions.

Is the described reclamation complete? Yes \_\_\_\_\_

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? No \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? No \_\_\_\_\_

## 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). 10/22/2012

Date of commencement of Site Investigation. 10/23/2012

Date of completion of Site Investigation. 07/31/2020

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 12/17/2012

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

Date of commencement of Reclamation. 12/21/2012

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

### OPERATOR COMMENT

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

Signed: Aaron Galer

Title: Environmental Specialist

Submit Date: 08/31/2020

Email: aaron.galer@williams.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: 08/31/2020

Remediation Project Number: 14388

### COA Type

### Description

<u>COA Type</u>	<u>Description</u>
	Remediate soils to Table 910-1 concentration levels.

### 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.

<u>Att Doc Num</u>	<u>Name</u>
402375435	FORM 27-SUPPLEMENTAL-SUBMITTED
402456683	LOGS
402456687	ANALYTICAL RESULTS
402478050	SITE INVESTIGATION PLAN

Total Attach: 4 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	8/31/2020 Moved back to draft, lat/long needed for the remediation project.	08/31/2020

Total: 1 comment(s)